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

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| IN RE ELECTRONIC BOOKS ANTITRUST LITIGATION | : | 11-MD-02293 (DLC) |

This Document Relates to:

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| ALL ACTIONS | : | |

**REPLY IN SUPPORT OF DEFENDANT APPLE INC.'S MOTION TO EXCLUDE OPINIONS OFFERED BY DR. ROGER NOLL IN SUPPORT OF MOTION FOR CLASS CERTIFICATION**

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## PRELIMINARY STATEMENT

In an effort to salvage his flawed analysis, Dr. Noll has proffered a new model for calculating damages that generates a new, and significantly lower, damages estimate. But Dr. Noll's new approach fails to correct the fundamental problems Apple identified in its motion, and remains so flawed that it permits no reliable assessment of impact or damages, whether individual or aggregate. Dr. Noll continues to ignore standard statistical measures that undermine his conclusions which remain in conflict with Plaintiffs' theory in this case. He still applies a common overcharge to all transactions within genre categories when there is no economic basis for doing so, thus assuming the common impact his model purports to prove and offering no practical method for determining individual damages on a classwide basis. Even if Dr. Noll's regression could be used to calculate individual damages—and it cannot—the results would be inaccurate and unreliable because it fails to properly specify the world that would exist absent the agency agreements. For these reasons, Dr. Noll's declaration and reply declaration fail to comply with the legal standard for expert testimony required by Rule 702 of the Federal Rules of Evidence and established in *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993). The Court should thus exclude the opinions offered in support of class certification in Dr. Noll's declarations[1], and deny Plaintiffs' unsupported motion for class certification.

## ARGUMENT

### I. Dr. Noll's Analysis Does Not Reliably Fit The Data

Plaintiffs erroneously dismiss the import of statistical measures showing that Dr. Noll's model fails to explain whether individual book prices varied *because of* Apple's conduct. Opp.

[1] It is unclear whether Dr. Noll's reply declaration is intended to supplant or supplement the opinions in his original declaration. For avoidance of doubt, Apple's motion encompasses the opinions in both declarations. Apple reserves its right to challenge the admissibility of his opinions as used to support arguments other than class certification.

19 n.98. And Dr. Noll's model is "[in]consistent with [plaintiffs'] liability case," which the Court accepted. *Comcast Corp. v. Behrend*, 133 S. Ct. 1426, 1433 (2013). Dr. Noll's analysis thus cannot reliably aid the Court in showing that damages can be proved on a classwide basis.

1. Dr. Noll continues to ignore the "within R-squared" statistic, which indicates how well his model explains variation within an individual title's prices. Mot. 14. The statistic was 12% for his original model (*id.* at 14; Kalt Decl. ¶ 134), and Dr. Noll admitted this told him "there's a lot of variation in price around the average price" that cannot be explained by his model. Richman Decl. Ex. A (Noll Dep.) at 186:23-24. Under the analysis in his revised report, the "within R-squared" statistic is even lower—about 5% (Kalt Sur-reply Decl. ¶ 51), meaning his new model explains even less of the variation in transaction-level prices.

Plaintiffs argue that "within R squared" is not relevant because the purpose of Dr. Noll's model "is to estimate the percentage of price elevation due to collusion, not to predict the 'actual price'" for every individual transaction in the but-for world. Opp. 19 n.98. But Plaintiffs use his model to show that Apple's conduct had a common adverse impact. Mot. for Class Cert. 14-17. Because his model cannot reliably explain why individual titles' prices varied significantly, it cannot aid the Court in showing that each class member paid more *because of* Apple's conduct.

2. None of the changes to Dr. Noll's methodology close the schism between Dr. Noll's model and Plaintiffs' theory that more e-book titles would have been priced at $9.99 absent the agency agreements. *See* Mot. 15-16. Dr. Noll admitted that he does not know—or even regard as an important question—how many predicted but-for prices in his model are $9.99. Noll Dep. at 184:10–185:23. In fact, in Dr. Noll's but-for world *almost no e-books would have been priced at $9.99*. Kalt Sur-reply Decl. Figure 18. Thus, his model still does not match Plaintiffs' theory that more e-books would have been priced at $9.99 absent the agency agreements (*see* Dkt. 432 ¶

13; Mot. 15), and it "cannot possibly establish that damages are susceptible of measurement across the entire class for purposes of Rule 23(b)(3)." *Comcast,* 133 S. Ct. at 1433.

Plaintiffs mischaracterize the evidence at trial by suggesting that Dr. Noll's model need not conform to their theory that more e-book titles would have been priced at $9.99 absent the agency agreements because that was not the theory that the district court accepted. Opp. 12 n.55 ("What matters is that Class Plaintiffs' damages model is consistent with the liability case proven, not the case alleged.").[2] It is not clear what "other theory" they are claiming the district court accepted. The court repeatedly refers to $9.99 as the "prevailing price" for e-books (*see* No. 12-cv-2826, Dkt. 326 at 10, 11), and found that Amazon was committed to the $9.99 price point and believed it would have "long-term" benefits (*id.* at 14). And at trial, plaintiffs' experts all disavowed having calculated but-for prices. No. 12-cv-2826, Dkt. 314 at 1578:10-18 (Gilbert's before-and-after price comparison "was not a regression analysis"); *id.* at 1517:2-9 (Ashenfelter: "I have not done an analysis of Dr. Burtis' all data attempting to establish … how to model a but-for world"). The only but-for price proffered at trial was $9.99.

## II. Dr. Noll's Use of Averaged And Aggregated Data Leads To Unreliable Conclusions Regarding Individual Injury

Dr. Noll's new analysis continues to rely on average overcharges, rather than the actual overcharges to individual putative class members. His analysis simply assumes, rather than demonstrates, the common impact that Plaintiffs must prove and produces inaccurate results, and therefore does not demonstrate that individual damages can be proved on a classwide basis.

1. Dr. Noll's continued use of average overcharges assumes his conclusion of common

[2] Plaintiffs do not explain why they may rely on the Court's findings under collateral estoppel or any other theory. In fact, any collateral estoppel effect will be narrowly circumscribed to only those matters that were "necessary" to support the Judgment (like the existence of a conspiracy) and on which the burden of proof does not shift between the liability and damages phases. *Bear, Stearns & Co., Inc. v. 1109580 Ontario, Inc.*, 409 F.3d 87, 91 (2d Cir. 2005); *Cobb v. Pozzi*, 363 F.3d 89, 113 (2d Cir. 2004).

impact by applying the same overcharge to large groups of dissimilar titles and transactions.

In his initial declaration, Dr. Noll used averages in two ways: (1) he calculated average e-book prices over four-week periods for individual titles, and aggregated those average prices into e-book categories of his own design, and (2) he then computed average overcharges within those categories. The same average percentage overcharge was applied to all e-book sales within a given category, even though there is no reason to assume prices of titles within the different categories would behave similarly. *See* Mot. 16-19. In fact, Dr. Noll's methodology ignored that many individual class members suffered no injury and actually benefitted from the agency agreements. *See* Kalt Decl. ¶ 139.[3] The use of averaged and aggregated data thus masked the disparate individuals within the Plaintiffs' "fictional composite" of the proposed class. *Broussard v. Meineke Disc. Muffler Shops, Inc.*, 155 F.3d 331, 345 (4th Cir. 1998); *see also In re Graphics Processing Units Antitrust Litig.*, 253 F.R.D. 478, 493 (N.D. Cal. 2008).

Although in his Reply Declaration Dr. Noll touts his use of a supercomputer to eliminate use of four-week average prices, his new analysis still relies on averages, yielding inaccurate results and assuming common impact where there is none.[4] Noll Reply Decl. 16-17. Dr. Noll uses transaction-level prices[5] to compute average overcharges within each of his genre

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[3] Plaintiffs attempt to minimize the positive effects of the agency agreements by criticizing the analysis of Apple's expert, Professor Joseph Kalt, and relying on the analysis of Professor Richard Gilbert, one of plaintiffs' trial experts. *See* Opp. 21-23. Plaintiffs raise the same criticisms of Professor Kalt in their motion to exclude his opinions. Dkt. 490. As explained in Apple's response to that motion, Plaintiffs' critique lacks merit: Professor Kalt correctly relied on modal pricing (Kalt Opp. 17-19), any minor errors regarding mislabeling agency prices have been corrected (*id.* at 6-9), and he did not improperly exclude substantial relevant data (*id.* at 15-17). While Plaintiffs and Dr. Noll point to Professor Gilbert's analysis in arguing that the agency agreements did not benefit consumers, Professor Gilbert's analysis is not inconsistent with Professor Kalt's analysis or conclusions. *See* Kalt Sur-reply Decl. ¶ 60.

[4] This Court denied Apple's request to depose Dr. Noll regarding his new, unexpected analysis. Dkt502. Although Plaintiffs attempt to minimize the differences between Dr. Noll's two methods (Opp. 18), his "preferred" model reduces damages by almost $90 million after trebling. *See* Kalt Sur-reply Decl. ¶ 3.

[5] While Dr. Noll describes his new damages model as a "transaction-level" analysis, his aggregation of

*(Cont'd on next page)*

categories, and then applies that average percentage overcharge to all e-book transactions within a given category. Thus, he continues to apply group-average overcharges to individual transactions when there is no economic basis for believing the prices of titles within those groups would have behaved the same way. *See* Kalt Decl. ¶¶ 121-124. Indeed, Dr. Noll now claims that the purpose of his model is to provide the "*average percentage* mark-up for e-books in [each] category." Noll Reply Decl. 5 (emphasis added).

While Dr. Noll highlights his calculation of average overcharges for more than 500 different e-book categories (*see* Noll Reply Decl. 13), he ignores that within any group there can be millions of sales and thousands of titles, and there is no reason to believe the transactions would have behaved the same way. *See* Kalt Sur-reply Decl. ¶ 7. A key criterion in evaluating Dr. Noll's methodology is whether each transaction within a given category occurs at the same price, such that the average percentage overcharge he applies reliably tracks the percentage overcharge for each transaction. *See id.* ¶ 23. Here, the divergence of pricing within Dr. Noll's e-book categories does not support his application of the same average percentage overcharge to all post-agency transactions in each group. *See id.* ¶ 26 (finding that across all of Dr. Noll's groupings of Publisher Defendants' transactions, only 7% of the prices changes (adjusted for Dr. Noll's factors) are within +/- 5% of the applicable group average percentage overcharge); *see also id*., Figs. 2A-2F. His method still reports a significant number of false positives, as a result of his assumption of common impact. *See id.* ¶¶ 30-33. For example, Dr. Noll's analysis assumes an overcharge for many of the individual putative class members' transactions where no

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prices into weekly groupings ignores information on specific days of sale. As a result, his model eliminates important transaction-specific information that is necessary for understanding and explaining e-book pricing. *See* Kalt Sur-reply ¶ 52.

overcharge actually existed based on his model's but-for prices. *See id.* ¶ 33, Fig. 6.

Plaintiffs complain that Professor Kalt failed to identify narrower categories that Dr. Noll should have used (Opp. 17-18), but it is not Apple's burden to fix Plaintiffs' damages model and, more fundamentally, such categories do not exist. As Professor Kalt explains, grouping titles into categories disregards factors that would affect the price for a given transaction, including authors' reputations, reviews, events such as a movie release of the title, "buzz" and "word-of-mouth" effects, and advertising and other marketing efforts. *See* Kalt Decl. ¶ 124; Kalt Sur-reply ¶ 55. Dr. Noll argues that his "title indicator variable[s]" "account for differences among books in the same category" (Noll Reply Decl. at 15), but even after accounting for all of the explanatory factors employed in Dr. Noll's modeling, his model reveals price changes upon the move to agency that are not "approximately the same" across titles within his categories. *Id.* at 17; Kalt Sur-reply ¶¶ 28-29.

The Mathematical Appendix attached to Professor Kalt's declaration discusses in detail the fundamental problem with assuming that the same overcharge apples to all transactions within a particular genre category. Kalt Decl. at A-3-A-6. Dr. Noll's failure to respond to these points is telling. As Professor Kalt concluded, Dr. Noll assumes the very thing he is supposed to prove—a common effect of agency on individual e-book prices. *Id.* at A-6; *see also In re Graphics Processing Units*, 253 F.R.D. at 493; ABA Section of Antitrust Law, *Econometrics: Legal, Practice, and Technical Issues* 222 (2005). Dr. Noll's revised analysis still rests on this assumption, so it is not reliable evidence of common impact.

2. Dr. Noll's new model still does not show how individual damages could be calculated on a classwide basis.

Contrary to Plaintiffs' assertions, *see* Opp. 19-20, 23-24, under recent Supreme Court

precedent they must show they can prove that actual, individual damages—not estimates—are calculable on a classwide basis. *See Comcast*, 133 S. Ct. at 1433; *Wal-Mart Stores, Inc. v. Dukes*, 131 S. Ct. 2541, 2561 (2011). Without these safeguards, class certification would deny the defendant its right to mount individual defenses or challenge a class member's standing or claimed damages. *See Dukes*, 131 S. Ct. at 2561; *see also Denney v. Deutsche Bank AG*, 443 F.3d 253, 264 (2d Cir. 2006) ("no class may be certified that contains members lacking Article III standing"); *see also id.* at 267 ("Ordinarily, when some plaintiffs have [suffered an injury] and some [have] not, class certification will be unavailable for want of commonality, adequacy, or superiority."'). Certifying a class under these circumstances would thus violate the Rules Enabling Act and due process. *Dukes*, 131 S. Ct. at 2561; *see also Carrera v. Bayer Corp.*, 727 F.3d 300, 307 (3d Cir. 2013) ("A defendant in a class action has a due process right to raise individual challenges and defenses … [and] to challenge the proof used to demonstrate class membership.").

By using average overcharges within categories, Dr. Noll's new regression continues to produce inaccurate results that say nothing about any class member's actual damages. Many transaction prices during agency were lower than the but-for prices generated by Dr. Noll's model, and his new model continues to generate millions of false positives. *See* Kalt Sur-reply ¶ 29-33. Even if the supercomputer regression did produce accurate results, it could not practically be run for each individual. *See* Class Cert. Opp. at 16-17. Thus, Dr. Noll's conclusions are irrelevant to the task at hand.

## III. Dr. Noll Fails To Specify The But-For World

Plaintiffs cannot explain away Dr. Noll's failure to consider significant marketplace realities that would have led to higher prices in the but-for world.

*E-Reader prices*. Dr. Noll acknowledges that e-reader prices are lower after the switch to

agency, but refuses to consider that fact because consumers are deriving "less net benefit" from devices. Noll Reply at 69. Under governing legal principles, however, any injury flowing from the conduct (here, an increase in some e-book prices), must be offset by the benefits of the conduct (lower prices on e-readers). *See L.A. Mem'l Coliseum Comm'n v. Nat'l Football League*, 791 F.2d 1356, 1367 (9th Cir. 1986); *see also* Orszag Opp. at 3-6 (filed concurrently herewith). By ignoring this benefit, which would not have existed in the but-for world, Dr. Noll "substantially overstates the harm to consumers from Apple's actions." Orszag Decl. at 5.

*Self-publishing.* Plaintiffs' selective review of the evidence seeks to obscure the connection between Apple's entry and Amazon's increase of its self-publisher royalty rate. As this Court acknowledged, Amazon "disclosed how it would respond" to news of Apple's agency agreements with the publishers when, two days later, it announced the 70% royalty option. No. 12-cv-1286, Dkt. 326 at 68-69. It is simply not true that Amazon implemented the 70% royalty rate before learning about Apple's potential entry. *See* Opp. 14. Amazon's internal emails show that they learned about Apple's potential entry with the 70% royalty rate *before* Amazon's CEO circulated an email contemplating the same rate. *See* Orszag Opp. 21-24.

*Barnes & Noble exit.* Plaintiffs also improperly minimize the effect of Amazon's pre-agency pricing strategy on Barnes & Noble's e-books business and what it means for the but-for world. Opp. 14. Barnes & Noble's Vice President of Digital Content testified that Barnes & Noble would have gone out of business absent the change in business model. *See* No. 12-cv-2826, Dkt. 320 at 2204:17:2205:2 ("we would have continued to sustain a lower profit margin than . . . we reasonably felt we could sustain"). Indeed, Dr. Noll states that the alleged price-fixing agreement was good for Barnes & Noble (Noll Reply Decl. 58), an implicit admission that the company would have been worse off absent the agency agreements. Given that Amazon

raised prices during the period of 2009 where no viable competitors existed, elimination of Barnes & Noble from the market would have cemented Amazon's monopoly power and resulted in even higher prices. But this fact does not enter Dr. Noll's but-for world.

*E-book sales to Apple customers.* And finally, Dr. Noll undertook no analysis of whether consumers actually would have purchased the same e-books absent the agency agreements. Plaintiffs highlight that some e-books would have been available on the iPad through other retailers' apps even absent the agency agreements (Opp. 14), apparently suggesting that Apple customers would have made the same purchases in the but-for world. But the evidence shows that fewer e-books would have been available absent the agency agreements. For example, the agency agreements led to an explosion of e-books from independent and self-publishers, categories of e-books that otherwise would have been more limited. *See* Cue Decl. ¶ 108; Moerer Decl. ¶ 45; Burtis Decl. ¶¶ 32, 39-42. And the Publisher Defendants would have engaged in windowing absent the switch to agency. *See* Cue Decl. ¶ 40; Moerer Decl. ¶ 20.

Dr. Noll failed to consider these and other factors in his reports. If anything, these variables suggest that prices would have continued to increase, not decrease, in the but-for world.

Despite Dr. Noll's omissions, Plaintiffs claim his analysis is consistent with Amazon's pricing formula (Opp. 12 & n. 57), even though he has admitted that he has "no clue what's inside the Amazon pricing algorithm …." Noll Dep. at 67:22-68:4. Apple sought discovery of the algorithm (Dkt. 397), but Plaintiffs opposed this additional discovery (Dkt. 392; No. 12-cv-3394, Dkt. 283), and the Court rejected Apple's request (Dkt. 256 at 6:21-11:11). Apple should not be prejudiced by its lack of information about Amazon's pricing formula.

## IV. Dr. Noll's Opinions Lack Sufficient Intellectual Rigor

Dr. Noll's new opinions still lack the intellectual rigor expected of a professional economist—an implicit acknowledgment that he cannot fix the defects Apple identified in its

motion. Mot. 7-10. And Plaintiffs have not shown why these defects do not warrant exclusion of Dr. Noll's opinions.

For example, Plaintiffs continue to ignore Dr. Noll's testimony that he could not explain what his model does and that he may need to correct his analysis. *See* Mot. 9. Dr. Noll has been unable to explain the function of much of the code his research assistants wrote to implement his model. *See* Noll Dep. at 237:4-239:19 ("I cannot remember what this particular line of code does …. I don't think I may ever have known what particular line of code made which particular calculation."). There is no sign that this has changed. And Dr. Noll admitted that his assistants may have "implemented [his] methodology in a different way than [he] intended," and that he could "ask them and find out if they screwed up and didn't do what [he] told them to." *Id.* 240:21-241:2. On November 11, 2013, Apple wrote a letter to Plaintiffs requesting that Dr. Noll correct this analysis, but they have not responded. Richman Decl. Ex. R.

Moreover, while Dr. Noll's new calculation is almost $30 million lower than his first, and is closer to Professor Wickelgren's figure, he continues to completely ignore Professor Wickelgren's analysis. *See* Mot. 9-10. Plaintiffs claim Wickelgren's analysis is irrelevant because it was a "litigation declaration" based on "limited data" and "without the benefit of the outcome of the liability case." Opp. 10, 11 n.49. But Dr. Noll testified that such studied ignorance of fellow economists' work is not a feature of his professional practice. Noll Dep. at 229:7–16. Professional practices cannot be tossed aside in this litigation. *Kuhmo Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1998).

## CONCLUSION

For all of these reasons, this Court should exclude Dr. Noll's reports and testimony.

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New York, New York

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