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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

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IN RE GOOGLE PLAY STORE
ANTITRUST LITIGATION

Case No. 3:21-md-02981-JD

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THIS DOCUMENT RELATES TO:

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State of Utah et al. v. Google LLC et al.,
Case No. 3:21-cv-05227-JD

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In re Google Play Consumer Antitrust
Litigation, Case No. 3:20-cv-05761-JD

STATE AND CONSUMER
PLAINTIFFS' OPPOSITION TO
DEFENDANTS' MOTION TO
EXCLUDE MERITS OPINIONS OF
DR. MARC RYSMAN

Judge: Hon. James Donato

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INTRODUCTION

2   Generally, the more you tax something, the less of it there is. Dr. Marc Rysman, Chair of

3 the Department of Economics at Boston University, uses this fundamental principle to show that

4 Google's supracompetitive commissions harmed Play Store customers. If developers had paid

5 Google less in commissions, more apps and more in-app content would have been available for

6 purchase for the same total amount of money, making consumers better off.

7   Dr. Rysman's model derives from standard economic literature on variety. Using a

8 textbook model of monopolistic competition, Dr. Rysman first uses Play Store transaction data to

9 show that lowering commissions would tend to increase app entry. Dr. Rysman then calculates in

10 dollars the benefit to consumers resulting from this increased innovation. Google's damages

11 expert, Dr. Leonard, successfully replicated Dr. Rysman's results, swapped out some of his

12 inputs for other figures and assumptions, and re-ran the model multiple times without breaking it.

13 Dr. Rysman's model—which is replicable, based in peer-reviewed literature, and derived from

14 well-accepted economic principles—satisfies *Daubert*. Perhaps that is why Google failed to cite

15 (much less analyze) the relevant *Daubert* factors.

16   Instead, Google offers three red herrings. *First*, Google tries to portray Dr. Rysman's

17 variety model as a calculation of a "personal injury" akin to "emotional distress" damages that

18 are not compensable under the Clayton Act. To the contrary, the model expresses the value of the

19 lost innovation and choice caused by Google's conduct, long recognized as core antitrust

20 injuries. *Second*, the States' complaint alleged these injuries in multiple places, putting to rest

21 Google's contrary claim. *Finally*, Dr. Rysman's model does not duplicate Dr. Singer's; it uses a

22 different methodology and measures different injuries. The motion should be denied.

23

BACKGROUND

24   Dr. Rysman presents a model of monopolistic competition.[1] In monopolistic competition

25 among differentiated products (ones that enjoy a degree of market power) like apps, fixed costs

26

27 [1] *See* Satia Decl. Ex. 2 ("Rysman Rpt.") ¶ 552.

28

1 of entry help predict long-run entry and exit.[2]

2   This insight and the foundations of the model come from a peer-reviewed economics

3 paper published in 1993 by Jeffrey Church and Neil Gandal, *Complementary Network*

4 *Externalities and Technological Adoption*.[3] The fundamental elements and assumptions of

5 Church and Gandal's model rest on the seminal paper by Avinash K. Dixit and Nobel-Prize-

6 winner Joseph E. Stiglitz, *Monopolistic Competition and Optimum Product Diversity*.[4] Church

7 and Gandal explain that a platform's value to consumers increases with the variety of software

8 available on the platform. Software variety, in turn, "is determined in large part by the fixed cost

9 of software development."[5] As costs of entry decrease, "more software firms will enter, thereby

10 increasing the variety of software provided and the welfare of consumers."[6] Google's

11 commission is a fixed slice of developer revenue that developers likewise consider before entry.

12 All else equal, a lower commission rate increases app entry.

13   Dr. Rysman's damages model has three stages. In the first, developers choose to enter the

14 Android ecosystem by creating an Android app with paid content.[7] Dr. Rysman assumes free or

15 continuous developer entry, meaning that new Android apps and content come to market if

16 developers expect them to generate positive economic profits over fixed costs. Dr. Rysman takes

17 this assumption directly from Church and Gandal.[8] The free-entry assumption also appears in

18 Dixit and Stiglitz[9] and is standard in models of competition.[10] At this stage, before entry,

19 Dr. Rysman assumes that a developer cannot predict the success of an app. Dr. Rysman draws

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21 [2] *See* Rysman Rpt. ¶ 553.

22 [3] Benedict Decl. Ex. A, 11 Int'l J. of Indus. Org. 239 (1993) ("Church and Gandal").
   [4] Benedict Decl. Ex. B, 67 Am. Econ. Rev. 297 (1977) ("Dixit and Stiglitz").

23 [5] Church and Gandal, *supra*, at 251.

24 [6] *Id.* at 249.
   [7] Rysman Rpt. ¶ 554.

25 [8] *See id.* ¶¶ 488, 592 & App'x F-9; Church and Gandal, *supra*, at 245 ("The number of software firms is endogenously determined by a free-entry condition[.]").

26 [9] Dixit and Stiglitz, *supra*, at 299.

27 [10] *See* Steven Berry and Peter C. Reiss, *Empirical Models of Entry and Market Structure in* 3 Handbook of Industrial Organization, Ch. 29 (2007).

28

1   this assumption from a paper that studied the effect of Europe's General Data Protection

2   Regulation ("GDPR") on app entry on the Google Play Store.[11] That paper found that an increase

3   in fixed costs reduced entry of successful and unsuccessful Play Store apps in equal

4   proportions.[12] That developers can't predict app success implies that a given developer does not

5   know before entry what its sales will be.

6   In the second stage, after the developer enters, it makes a profit-maximizing pricing

7   decision, just as in the Church and Gandal model.[13]

8   At stage three, the consumer decides which apps and in-app content to buy and

9   "allocate[s] her budget across various apps."[14] Like Church and Gandal, and Dixit and Stiglitz

10   before them,[15] Dr. Rysman uses the constant elasticity of substitution ("CES") model, which

11   assumes that consumers have a finite amount to spend on the Play Store.[16] As more Android

12   apps enter, consumer welfare improves because consumers value having more apps on the

13   platform.[17] In the but-for world, this means that the consumer would take her finite budget and

14   re-allocate it across the greater variety of apps and in-app content that would have been

15   available. As a result, she would get more value—utility—for her money. That increased utility

16   can then be converted to a dollar amount, a well-accepted practice in the economics literature.[18]

17   To calculate the variety effect, Dr. Rysman's model uses seven inputs: (1) gross

18   consumer expenditure net of Google and developer discounts in the actual world; (2) Google's

19   actual commissions as a share of the gross consumer expenditure net of developer discounts;

20   (3) Google's discounts to consumers, including Play Points, as a share of gross consumer

21   expenditure net of developer discounts; (4) Google's but-for competitive commission, which

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[11] *See* Satia Decl. Ex. 6, Rebecca Janßen *et al.*, *GDPR & the Lost Generation of Innovative Apps*, Nat'l Bureau of Econ. Res. Working Paper No. 30028 (May 2022) ("Janßen *et al*").

[12] *Id.* at 22.

[13] *See* Rysman Rpt. ¶ 554.

[14] *Id.*

[15] Church and Gandal, *supra*, at 246 n.8; Dixit and Stiglitz, *supra*, at 298.

[16] Rysman Rpt. ¶ 581; Rysman Rebuttal Rpt. ¶ 338.

[17] Rysman Rpt. ¶¶ 561, 563 (citing Dixit and Stiglitz, *supra*).

[18] *Id.* ¶¶ 487, 561, 563 & App'x F-2.

1   Dr. Rysman benchmarks to be 15% based on reduced commissions Google introduced in

2   response to limited competition; (5) Google's but-for discount to consumers, which Dr. Rysman

3   conservatively bases on Play Points in the actual world; (6) the own-price elasticity of demand

4   for apps on Google Play, which Dr. Rysman takes from Anindya Ghose and Sang Pil Han in

5   *Estimating Demand for Mobile Applications in the New Economy*;[19] and (7) an estimate of

6   developers' fixed costs of entry.[20] To estimate developers' fixed costs of entry, Dr. Rysman

7   calibrates the model using the number of apps on the Play Store over time.[21] As for the own-

8   price elasticity of demand, Dr. Rysman conducts regression analyses using Google's transaction

9   data showing that the Ghose and Han elasticity estimate is more conservative and results in a

10 smaller damages total than Dr. Rysman's regressions would produce.[22]

11   Dr. Rysman does not purport to study the relationship of Google's commission rate to

12 app prices, sometimes referred to as "pass through." Dr. Rysman's model works regardless of the

13 pass-through rate because it can be used to calculate both overcharge damages and damages

14 based on lost innovation (*i.e.*, variety). At a high level of generality, a higher pass-through rate

15 implies higher overcharge damages resulting from lower application prices charged to

16 consumers, but lower variety damages—because developers pass-on the higher costs they pay to

17 the consumers in the form of higher app prices. In his Opening Report, Dr. Rysman calculates

18 overcharge damages based on an implicit pass-through rate from the commission to the price of

19 apps and in-app content of 100%.[23] In his Rebuttal Report, Dr. Rysman runs the model with the

20 pass-through rates proposed by Dr. Leonard and Dr. Singer.[24] Dr. Rysman also estimates pure

21 "variety damages," which result from consumers getting less app variety per dollar spent on Play

22 than they would have received in a competitive but-for world.[25] The variety damages estimate

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[19] Benedict Decl. Ex. C, 60 Mgmt. Science 1470, 1482-84 (2014).

[20] Rysman Rpt. ¶¶ 588-593.

[21] *Id.* ¶¶ 591-92.

[22] *Id.* ¶¶ 576-583.

[23] *Id.* ¶¶ 556-59, 588-91.

[24] *See* Satia Decl. Ex. 4 ("Rysman Rebuttal Rpt.") ¶ 328.

[25] Rysman Rpt. ¶¶ 560-63, 592-93.

1   assumes that changing Play Store commissions would not affect app prices (0% pass-through).[26]

2   The "total welfare effect" is a permutation of the model that allows prices and app entry to

3   interact.[27] The pure variety model (0% pass-through) produces the lowest, and thus most

4   conservative, estimate of damages.[28]

5   Dr. Rysman calculates the equivalent variation, or the amount consumers would have to

6   be paid in the actual world to put them in the value position they would have enjoyed making

7   purchases among a greater variety of apps in the but-for world.[29] Dr. Rysman's variety model

8   calculates an increase of about 22% in total consumer welfare from the increased app entry in the

9   but-for world.[30] Multiplied by actual net consumer spending, this results in a total dollar amount

10 of injury to consumers. Dr. Rysman then allocates those damages by State based on net

11 consumer spending in each State. While the model, appropriately, produces an aggregate

12 damages number for consumers nationwide and by State, it can also be used to reasonably

13 approximate damages for each individual consumer by multiplying the individual's amount of

14 spending on the Play Store in the damages period by the weighted average 22% variety effect.[31]

15   **LEGAL STANDARD**

16   Federal Rule of Evidence 702 "tasks a district judge with ensuring that an expert's

17 testimony both rests on a reliable foundation and is relevant to the task at hand."[32] "Expert

18 opinion testimony is relevant if the knowledge underlying it has a valid connection to the

19 pertinent inquiry. And it is reliable if the knowledge underlying it has a reliable basis in the

20 knowledge and experience of the relevant discipline."[33] Rule 702 requires consideration of

21

22 [26] *Id.* ¶ 562.

    [27] *Id.* ¶¶ 564-65, 594-95.

23 [28] *Id.* ¶ 611.

24 [29] *Id.* ¶ 563.

    [30] As demonstrated using formula "=r.damages_All_both!W2*'Exhibit 74'!C8/'Exhibit 74'!C7"

25 in the workpaper, "Damages - Aug 16, 2016-May 31, 2022.xlsx."

    [31] Dr. Rysman also offers a model of damages based on an earlier introduction of Play Points in

26 the but-for world. Google does not seek to exclude that model, and the jury will hear it.

    [32] *Elosu v. Middlefork Ranch Inc.*, 26 F.4th 1017, 1024 (9th Cir. 2022) (cleaned up).

27 [33] *City of Pomona v. SQM N. Am. Corp.*, 750 F.3d 1036, 1044 (9th Cir. 2014).

1 "whether the theory or technique employed by the expert is generally accepted in the scientific

2 community; whether it's been subjected to peer review and publication; whether it can be and

3 has been tested; . . . whether the known or potential rate of error is acceptable;" and "whether

4 experts are testifying about matters growing naturally out of their own independent research."[34]

5 The Ninth Circuit considers these factors "illustrative"; "Rule 702 should be applied with a

6 liberal thrust favoring admission."[35] "Shaky but admissible evidence is to be attacked by cross

7 examination, contrary evidence, and attention to the burden of proof, not exclusion."[36]

8   **ARGUMENT**

9 **I.   Dr. Rysman's Model Satisfies *Daubert***

10   **A.   The *Daubert* Factors Support Admissibility**

11   Google's brief does not mention the *Daubert* factors because they support admissibility.

12   *General Acceptance in Economics.* Dr. Rysman based his damages model on generally

13 accepted economic theories. To begin with, other economists have estimated the change in

14 consumer welfare from a change in the number of apps published on the Google Play Store.[37]

15 The more general premise—that increased product variety increases consumer welfare, which

16 can be reduced to dollars—is well-established in the economic literature.[38] Indeed, Google's own

17 experts have endorsed it.[39] Dr. Leonard, for example, testified that ████████████████

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[34] *Wendell v. GlaxoSmithKline LLC*, 858 F.3d 1227, 1232 (9th Cir. 2017) (cleaned up).

[35] *Id.* (cleaned up).

[36] *Primiano v. Cook*, 598 F.3d 558, 564 (9th Cir. 2010), *as amended* (Apr. 27, 2010).

[37] *See, e.g.*, Benedict Decl. Ex. D, Daniel Ershov, *Variety-Based Congestion in Online Markets: Evidence from Mobile Apps*, at 2-3, 26 (Aug. 10, 2022) (estimating welfare gains from app entry on Play and noting that "[p]roduct assortment, as measured by the number of products, is a key competitive outcome"); Janßen *et al.* at 34.

[38] *See* Rysman Rpt. ¶ 487 n.1011 (collecting papers).

[39] *See, e.g.*, Benedict Decl. Ex. E, Matthew Gentzkow, *Valuing New Goods in A Model with Complementarity: Online Newspapers*, 97:3 Am. Econ. Rev. 713 (June 2007); Benedict Decl. Ex. F, Gentzkow Dep. Tr. 264:18-267:23; Benedict Decl. Ex. G, Jerry A. Hausman & Gregory K. Leonard, *The Competitive Effects of New Product Introduction: A Case Study*, 50 J. of Indus. Econ. 237, 238 (Sept. 2002) (calculating dollar gains from the "variety effect"); Benedict Decl. Ex. H, Leonard Dep. Tr. 339:9-15.

1   ███████████████████████████████████████, and ██████████

2   ██[40]

3   *Peer Review*. As explained above, Dr. Rysman based his model on peer-reviewed

4   economic literature, including some studies of the Play Store itself. Google points out (at 2, 13)

5   that Dr. Rysman's model has not been used before in litigation. That is irrelevant: "Rule 702

6   does not forbid new methodologies and analyses."[41] *Daubert* asks whether an expert's analysis is

7   as rigorous in the courtroom as it is in the classroom or field.[42] Dr. Rysman also bases his model

8   on his *own* peer-reviewed work on how pricing affects consumer welfare in two-sided markets.[43]

9   This further supports its admissibility.[44]

10   *Testable*. "Under *Daubert's* testability factor, the primary requirement is that someone

11 else using the same data and methods be able to replicate the results."[45] Google's expert,

12

13 [40] Benedict Decl. Ex. H, Leonard Dep. Tr. 340:3-13.

14 [41] *In re Google Play Store Antitrust Litig.*, 2022 WL 17252587, at *6 (N.D. Cal. Nov. 28, 2022); *see Wendell*, 858 F.3d at 1236; *Primiano*, 598 F.3d at 567-68 (reversing exclusion of expert testimony because "there was no publication supporting his opinion"); *Clausen v. M/V NEW CARISSA*, 339 F.3d 1049, 1056 (9th Cir. 2003) (similar); *Fed. Trade Comm'n v. Qualcomm*, 2018 WL 6615050, at *3 (N.D. Cal. Dec. 17, 2018) (novel test "does not render [expert economist's] testimony unreliable" because "the point of industrial organization theory is to analyze how competition plays out in different markets" (cleaned up)).

15 [42] *See Wendell*, 858 F.3d at 1236.

16 [43] *See, e.g.*, Bruno Jullien, Alessandro Pavan & Marc Rysman, *Two-Sided Markets, Pricing and Network Effects in* Handbook of Industrial Organization, Ch. 7 (Kate Ho *et al.*, eds., July 2021); Marc Rysman, *The Reflection Problem in Network Effect Estimation*, 28 J. of Econ. & Mgmt. Strategy 153 (2019); Ginger Zhe Jin & Marc Rysman, *Platform Pricing at Sports Card Conventions*, 63 J. of Indus. Econ. 704 (2015); Marc Rysman & Julian Wright, *The Economics of Payment Cards*, 13 Rev. of Network Econ. 303 (2014); Martino De Stefano & Marc Rysman, *Competition Policy as Strategic Trade with Differentiated Products*, 18:4 Rev. of Int'l Econ. 758 (2010); Marc Rysman, *The Economics of Two-Sided Markets*, 23 J. of Econ. Perspectives 125 (2009); Marc Rysman, *Empirical Analysis of Payment Card Usage*, 60 J. of Indus. Econ. 1 (2007); Daniel A. Ackerberg & Marc Rysman, *Unobserved Product Differentiation in Discrete-Choice Models: Estimating Price Elasticities and Welfare Effects*, 36:4 RAND J. of Econ. 771 (2005); Marc Rysman, *Competition Between Networks: A Study of the Market for Yellow Pages*, 71:2 Rev. Econ. Stud. 483 (2004). Although not peer-reviewed, see also Dr. Rysman's conference paper, *Exclusionary Practices in Two-Sided Markets in* International Antitrust Law & Policy: Fordham Competition Law Institute (Barry E. Hawk ed., 2012).

17 [44] *See Wendell*, 858 F.3d at 1232; *Brickman v. Fitbit, Inc.*, 2017 WL 6209307, at *4 (N.D. Cal. Dec. 8, 2017) (Donato, J.) (denying *Daubert* motion as to expert whose "opinions are based . . . in significant part on her own pre-litigation research").

18 [45] *City of Pomona*, 750 F.3d at 1047 (cleaned up).

1   Dr. Leonard, tested Dr. Rysman's model and even ran it on the Google transaction data with

2   changed assumptions, such as different elasticities.[46] That supports admissibility, too.

3   **B.**   **Dr. Rysman's Assumptions Are Reasonable**

4   Dispensing with the *Daubert* factors, Google contends Dr. Rysman's assumptions are

5   unreliable for two primary reasons. *First*, Google argues that Dr. Rysman's choice to model but-

6   for entry of hundreds of thousands of apps at the weighted average app price in the actual world

7   (and the cost, margin, and quality inferred from that price) is unreliable because app prices,

8   costs, and the like vary from app to app. *Second*, Google claims that Dr. Rysman was wrong to

9   assume, like the Janßen paper does, that app success is unpredictable. Both arguments go to

10 weight, not admissibility.

11   1.   Dr. Rysman's use of the weighted average price, cost, and quality to calculate

12 damages is reliable in economics and has been accepted in antitrust litigation. Google repeatedly

13 claims these assumptions are not "real world."[47] But "any economic model inevitably will . . .

14 simplify the world"; indeed, "because of the economic complexities of the real world, it could

15 not be otherwise or recovery could rarely be had."[48] "[B]ecause the vagaries of the marketplace

16 usually deny us sure knowledge of what plaintiff's situation would have been in the absence of

17 the defendant's antitrust violation . . . . a plaintiff's burden of proving antitrust damages is to

18 some extent lightened once a violation is established, and the jury is allowed to approximate the

19 amount of damages."[49]

20   Dr. Rysman's model does what antitrust law requires—it supplies "a just and reasonable

21 estimate of the damages" consumers suffered.[50] Dr. Rysman does not assume that the additional

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23 [46] *See* Satia Decl. Ex. 5, Leonard Rpt. App'x E at 229.

    [47] *See* Mot. 2-5, 11-13.

24 [48] *Maldonado v. Apple, Inc.*, 2021 WL 1947512, at *22 (N.D. Cal. May 14, 2021).

25 [49] *Hasbrouck v. Texaco, Inc.*, 842 F.2d 1034, 1044 (9th Cir. 1987) (cleaned up), *aff'd*, 496 U.S.
    543 (1990).

26 [50] *L.A. Mem'l Coliseum Comm'n v. Nat'l Football League*, 791 F.2d 1356, 1360-61 (9th Cir.
    1986) (cleaned up); *see Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555,

27 562-65 (1931); *Knutson v. Daily Rev., Inc.*, 548 F.2d 795, 811 (9th Cir. 1976).

28

apps that would have entered in the but-for world would all charge the same price (or have the same marginal cost, and so on). Rather, as he explains in his report, "an interpretation of the marginal cost in my model is that it is an average marginal cost," and the model, in equilibrium, "approximates the average price set by apps."[51] To control for differences in developer marginal costs, Dr. Rysman shows that his model "closely approximates the average pricing equation that would arise in a model" that allows marginal costs to differ.[52] A mean price or cost by definition is one number, but that does not suggest that every app charges the mean price. Economists routinely use pooled or averaged data to calculate damages in antitrust cases.[53]

   2. Google next attacks (at 12-13) Dr. Rysman's assumption that app success is unpredictable—*i.e.*, that developers will not know their actual marginal costs or quality *ex ante*.

  Dr. Rysman does not pull this assumption out of thin air; he bases it on a National Bureau of Economic Research ("NBER") working paper that studied how app developers responded to the increased costs imposed by the GDPR. That empirical study of the Play Store by Janßen *et al.* found that the GDPR "reduced both the numbers of ex post successful and ex post unsuccessful apps," which "provides strong evidence that app success is unpredictable, so that an entry reduction can deliver large welfare impacts."[54] This finding is unsurprising: "[w]hether [a] venture will be profitable, and, if so, what the profits will be, is necessarily uncertain[.]"[55] For example, developers cannot predict marketing costs prior to launch because they do not know how popular the app will be.[56]

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[51] Rysman Rpt. App'x F at F-5.

[52] *Id.* ¶ 572.

[53] *See, e.g.*, *Olean Wholesale Grocery Coop., Inc. v. Bumble Bee Foods LLC*, 31 F.4th 651, 676 (9th Cir. 2022) (affirming class certification and rejecting arguments that plaintiff expert's model was unreliable for using a pooled regression model and cost indices) (en banc), *cert. denied*, 143 S. Ct. 424 (2022); *In re Korean Ramen Antitrust Litig.*, 2017 WL 235052, at *20 (N.D. Cal. Jan. 19, 2017) (denying *Daubert* motion because use of "cost averages" and purported "failure to address differences in the manufacture, procurement, and sale" of at-issue products were not inherently unreliable).

[54] Janßen *et al.* at 22.

[55] *Greyhound Comput. Corp. v. Int'l Bus. Machs. Corp.*, 559 F.2d 488, 506 (9th Cir. 1977).

[56] Rysman Rpt. App'x F at F-4 n.8.

1   Google objects (at 4) that the Janßen paper is "an unpublished, working paper." But, as

2   explained above, lack of peer review does not disqualify an expert's method. Moreover,

3   Google's own expert, Dr. Gentzkow, ████████████████████████████████

4   ██.[57]

5   Google claims (at 5, 12-13) that the Janßen paper concludes that there is partial

6   predictability of app success. But Google neglects to mention that it cites that paper's

7   "sensitivity" analysis using "alternative assumptions about . . . the predictability of app success

8   at entry."[58] In any event, "challenges [to] the expert's assumptions and comparisons" are ones

9   that "go to the weight of the testimony and its credibility, not its admissibility."[59]

10   Relatedly, Google argues (at 12) that Dr. Rysman cannot predict which apps would have

11   entered in the but-for world. But Google's conduct prevented the entry of those apps. Rule 702

12   does not require experts to predict every detail about the but-for world or imagine a whole suite

13   of businesses that do not exist but would have without misconduct by a monopolist. In

14   *Greyhound*, for example, the Ninth Circuit rejected a similar argument against a lost profits

15   theory, holding that if such a view "were accepted, antitrust damage actions would have only

16   limited and fortuitous application in any business involving long-term capital investment."[60]

17   Google also faults Dr. Rysman (at 12) for not doing a causal or regression analysis on

18   Google's commission reductions in the actual world to see if they affected the number of apps on

19   the Play Store. Google does not mention how this causal analysis should, or even could, be done

20   given that Google has monopolized the relevant markets for more than a decade. And none of its

21   experts run any regressions to refute the causal link predicted by Dr. Rysman's model.

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[57] *See* Benedict Decl. Ex. I, Gentzkow Report ¶¶ 160 n.172, 608 n.1045 & B.32; Benedict Decl. Ex. F, Gentzkow Dep. Tr. 222:12-20, 269:6-274:11.

[58] Janßen *et al.* at 30.

[59] *Alaska Rent-A-Car, Inc. v. Avis Budget Grp.*, 738 F.3d 960, 968, 970 (9th Cir. 2013); *see In re Juul Labs, Inc. Mktg., Sales Pracs. & Prod. Liab. Litig.*, 2022 WL 1814440, at *21 (N.D. Cal. June 2, 2022) (*Daubert* motion to exclude expert that based analysis "on the general principle that if you increase distribution, you increase sales" instead of regression analysis went "to weight, not exclusion").

[60] 559 F.2d at 506.

1   Dr. Rysman did not have to run regressions to show that taxing something generally makes less

2   of it; his structural model, based on carefully chosen parameters calibrated to academic and real-

3   world results, predicts that relationship. Furthermore, Dr. Rysman does show with simple figures

4   from Google's data that ██.[61]

5   ## II.   Lost Consumer Surplus Is Quintessential Injury to Business or Property

6   Google argues (at 7-9) that the lost consumer surplus Dr. Rysman calculates is not injury

7   to "business or property" under Section 4 of the Clayton Act, claiming that injuries besides a

8   change in list price are "personal injuries" akin to emotional distress. Google's "understanding of

9   antitrust injury is too restrictive."[62] "[W]hile an increase in price resulting from a dampening of

10 competitive market forces is assuredly one type of injury for which § 4 potentially offers redress

11 . . . that is not the only form of injury remediable under § 4."[63] Any antitrust injury must, by

12 definition, also be a compensable injury to property because the antitrust injury doctrine

13 interprets the same statutory language. As the Supreme Court has explained, the antitrust

14 standing cases sought to "ascertain as a matter of statutory interpretation, the scope of the private

15 remedy created by Congress in § 4 of the Clayton Act[.]"[64]

16 The Ninth Circuit has repeatedly held, as it did in *Ellis v. Salt River Project Agricultural*

17 *Improvement & Power District* that preventing consumers "from making free choices between

18 market alternatives gives rise to antitrust injury."[65] It held in *CollegeNET, Inc. v. Common*

19 *Application, Inc.* that "reducing overall market satisfaction" qualifies as cognizable antitrust

20 injury.[66] And it held in *Glen Holly* that restraining "customers' choices by purposefully

21 eliminating something from the market without any redeeming procompetitive effect" qualifies

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24 [61] Rysman Rebuttal Report, ¶ 371, Exs. 24-26.
    [62] *Glen Holly Ent., Inc. v. Tektronix, Inc.*, 352 F.3d 367, 374 (9th Cir. 2003).
25 [63] *Id.* at 375 (cleaned up).
    [64] *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 126 (2014) (cleaned up).
26 [65] 24 F.4th 1262, 1274 (9th Cir. 2022).
27 [66] 711 F. App'x 405, 406-07 (9th Cir. 2017).

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1 as antitrust injury.[67] Courts across this District routinely follow this guidance—as they must.[68] It

2 rests on bedrock principles of antitrust law, which "addresses distribution restraints in order to

3 protect consumers from the higher prices or diminished choices."[69] The Horizontal Merger

4 Guidelines, moreover, explain that "market power can also be manifested in non-price terms and

5 conditions that adversely affect customers, including reduced product quality, reduced product

6 variety, reduced service, or diminished innovation," which may be present with or without price

7 effects.[70] Reducing the variety of apps available on the app store represents a reduction in

8 quality, no different from reducing the durability of a car or the speed of a computer.

9   Dr. Rysman's analysis shows that Google's conduct prevented consumers "from making

10 free choices between market alternatives"[71] and decreased innovative software options[72] by

11 reducing app entry. The model conservatively calculates the dollar impact of the value lost in the

12 transactions consumers made in the actual world with fewer options. Consumers getting less

13 variety than what they could have gotten absent the anticompetitive conduct is precisely the kind

14 of injury the antitrust laws exist to prevent. Indeed, the Eleventh Circuit recently held that

15 allegations that Google's anticompetitive conduct in online advertising and related markets "hurt

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18 [67] 352 F.3d at 376-77.

19 [68] *Neilson v. Suntech Power Holdings Co.*, 62 F. Supp. 3d 1027, 1044 (N.D. Cal. 2014)
("conduct [that] has deprived consumers of technological choices and innovative technology
options" is antitrust injury); *Free FreeHand Corp. v. Adobe Sys. Inc.*, 852 F. Supp. 2d 1171,

20 1185 (N.D. Cal. 2012) (finding antitrust standing based on allegations of "decreasing innovation
in the market for [certain] software"); *see also Patt v. Antech Diagnostics, Inc.*, 2020 WL

21 5076970, at *7 (C.D. Cal. May 18, 2020) (upholding § 2 and UCL claims on basis of allegations
that defendant's "coercive activity" prevented "free choices between market alternatives");

22 *Arista Networks, Inc. v. Cisco Sys. Inc.*, 2018 WL 11230167, at *20 (N.D. Cal. May 21, 2018)
(denying summary judgment based on evidence that the challenged "conduct restricted the

23 customers from making free choices between different products"); *Ojmar US, LLC v. Sec.
People, Inc.*, 2017 WL 5495912, at *4 & n.3 (N.D. Cal. Nov. 16, 2017) (similar); *Magnetar

24 Techs. Corp. v. Intamin, Ltd.*, 2011 WL 13133973, at *8 (C.D. Cal. May 11, 2011) (depriving
consumers of "free choice" is an antitrust injury).

25 [69] Phillip E. Areeda & Herbert Hovenkamp, *Antitrust Law* ¶ 357b (2d ed. 2000).

26 [70] U.S. Dep't of Justice & Fed. Trade Comm'n, *Horizontal Merger Guidelines*, § 1 (2010).

     [71] *Ellis*, 24 F.4th at 1274.

27 [72] *Free FreeHand*, 852 F. Supp. 2d at 1185.

1 consumers" by "stifling innovation, raising prices, and decreasing the quality and variety of

2 products available to consumers . . . suffice[d] to establish antitrust injury."[73]

3   Google cites no authority suggesting that the Clayton Act bars recovery for injuries like

4 reduced quality, quantity, or variety—nor could Google do so in good faith: The Ninth Circuit

5 has recognized that "restraints that resulted in reduced choice, and lower quality and less

6 innovat[ion]" cause antitrust injury.[74] Google instead cites cases (at 8-9) finding damages for

7 emotional distress not recoverable. In *Oregon Laborers-Employers Health & Welfare Trust Fund*

8 *v. Philip Morris Inc.*,[75] the Ninth Circuit held that employee benefit plans lacked prudential

9 standing to sue tobacco companies for increased costs of treating insured smokers because their

10 injuries were too remote. The case did not hold—as Google claims (at 8)—that "'medical

11 expenses' are not injuries to 'business or property.'" *Berg v. First State Insurance Co.*,[76] which

12 held that loss of "peace of mind" from having insurance was not compensable under RICO, is

13 even further afield. In *Young v. Schultz*,[77] another RICO case, the court held that statute did not

14 permit recovery for "emotional distress, including 'insomnia, high blood pressure, worry,

15 anxiety, and fatigue.'" *Heflebower v. JPMorgan Chase Bank, NA*,[78] merely confirms that

16 "emotional distress" is not compensable under RICO. *Bhan v. NME Hospitals, Inc.*,[79] stands for

17 the unremarkable proposition that a plaintiff cannot recover under the Clayton Act for claims that

18 he "lost his friends." And *Reiter v. Sonotone Corp.* supports the States' position, holding that

19 "[a] consumer whose money has been diminished by reason of an antitrust violation has been

20 injured in his property within the meaning of § 4."[80]

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[73] *Inform Inc. v. Google LLC*, 2022 WL 3703958, at *6 (11th Cir. Aug. 26, 2022) (per curiam).
[74] *CollegeNET*, 711 F. App'x at 406.
[75] 185 F.3d 957, 964 (9th Cir. 1999).
[76] 915 F.2d 460, 464 (9th Cir. 1990).
[77] 2023 WL 1784758, at *3 (N.D. Cal. Feb. 6, 2023).
[78] 2014 WL 897352, at *6-7 (E.D. Cal. Mar. 6, 2014).
[79] 669 F. Supp. 998, 1013 (E.D. Cal. 1987), *aff'd*, 929 F.2d 1404 (9th Cir. 1991).
[80] 442 U.S. 330, 339 (1979).

1   Dr. Rysman's model shows exactly that: Consumers' "money has been diminished" due

2   to Google's anticompetitive conduct. But for Google's conduct, consumers' money would have

3   gone farther. A product that has suffered a $2 reduction in quality is the same injury as a $2 price

4   increase at the same level of quality. Likewise, a consumer who spends $500 on the Play Store—

5   a platform that, in the but-for world, would have 73% more unique products—has paid 22%

6   more per unique piece of variety-adjusted content than she would have paid in the but-for world.

7   What Dr. Rysman does in essence is calculate a weighted average "variety-adjusted price," as the

8   literature terms it.[81] The mere fact that consumer surplus measures utility—that is, value above a

9   price—does not transmogrify consumer welfare into emotional distress.

10 **III.   The States' Complaint Alleged Injury from Decreased App Variety**

11 Google contends (at 10) that Dr. Rysman's variety model is inadmissible because it is

12 "hard to square" with the States' complaint. That is wrong. From *the introduction*, the amended

13 complaint alleges that "Google's supracompetitive commission impedes developers from

14 researching, developing, and bringing to market innovative new apps, resulting in further lost

15 profits for them *and less innovation and choice for consumers*."[82] Similar allegations appear

16 throughout.[83] Dr. Rysman's damages model reasonably reflects the claims and evidence in this

17 case.[84]

18 Google also contends (at 10) that Dr. Rysman's model cannot be used to calculate

19 individual consumer damages. While Dr. Rysman did not perform those calculations in his

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21 [81] Neil W. Averitt & Robert H. Lande, *Consumer Sovereignty: A Unified Theory of Antitrust and Consumer Protection Law*, 65 Antitrust L.J. 713, 719 (1997).

22 [82] *Utah* Dkt. 188 ¶ 13 (emphasis added); *see also* MDL Dkt. 172 (2d Am. Consumer Compl.) ¶ 22 ("Absent Google's web of anticompetitive conduct, . . . more apps would be sold, and

23 quality and innovation would increase.").

[83] *See, e.g.*, *Utah* Dkt. 188 ¶¶ 73, 212, 214, 225, 261, 265, 270, 274, 283, 295, 303, 307, 313,

24 317, 333.

[84] To the extent the Court finds the Complaint's allegations insufficient, the States respectfully

25 request leave to amend. *See* Fed. R. Civ. P. 15; *Desertrain v. City of Los Angeles*, 754 F.3d 1147, 1154 (9th Cir. 2014) ("[W]hen issues are raised in opposition to a motion [for] summary

26 judgment that are outside the scope of the complaint, the district court should . . . construe[] the matter raised as a request" to amend. (cleaned up)). Google has not—and cannot—claim any

27 prejudice deriving from the alleged pleading defects, nor can it claim bad faith.

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report, he testified that his model could calculate individual damages.[85] this can be done by

multiplying individual consumer spending by the 22% variety-adjusted overcharge.

IV.   Dr. Rysman's Overcharge Analysis Does Not Duplicate Dr. Singer's

Google's arguments about Dr. Rysman's "direct price effect" version of the model fail.

First, Google argues that presenting two overcharge models is cumulative. Google cites

no authority for the proposition that plaintiffs are limited to a single damages model. Indeed,

Google claims (at 1) that Dr. Rysman's model is "inconsistent with Dr. Singer's overcharge

damages model." The models cannot be cumulative and inconsistent at the same time. In any

event, exclusion on this basis would be "premature" at this stage of the case.[86]

Second, Google argues Dr. Rysman did not calculate a pass-through rate. He "considered

several pass-through rates"—0%, 100%, and the rates proposed by Dr. Singer and Dr. Leonard—

and chose the variety damages calculation "with the zero percent" pass-through "because that's

the most conservative."[87] Google gives no reason why Dr. Rysman cannot also calculate the

damages implied by other experts' pass-through estimates, including Google's.[88]

At bottom, Dr. Rysman's model offers a way for the jury to quantify injury to consumers

no matter what the pass-through rate is. A commission reduction will lower the prices of apps

and in-app content or, if developers pocket that savings, result in greater app variety. Any

criticisms Google may have of the model can be aired at trial for the jury to consider.

CONCLUSION

The Court should deny Google's motion to exclude Dr. Rysman's variety and overcharge

damages opinions.

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[85] Benedict Decl. Ex. J, Rysman Dep. Tr. 84:7-19 (testifying about "these multipliers of spending that consumers would obtain either from a price effect or a variety effect or . . . both" that "you could apply . . . to an individual as well"); *id.* 85:6-15 (testifying that "I could see it being reasonable to use my model for . . . applying it to individual spending"); *see* Rysman Rpt. Workpaper, "Damages – Aug. 16, 2016-May 31, 2022.xlsx."
[86] *Apple iPod iTunes Antitrust Litig.*, 2014 WL 12719192, at *1 (N.D. Cal. Nov. 18, 2014).
[87] Satia Decl. Ex. 3 at 51:11-18; 52:6-8.
[88] Under Utah Code Ann. § 76-10-3109(8), 100% pass-through is presumed until rebutted by the defendant. Dr. Rysman can use the statutory presumption to calculate overcharges in Utah.

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/s/ Brendan Benedict