

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

_____)
UNITED STATES OF AMERICA,)
)
Plaintiff,)
)
v.)
)
APPLE, INC., et al.,)
)
Defendants.)
_____)

Civil Action No. 12-cv-2826 (DLC)

Direct Testimony of Richard J. Gilbert, Ph.D.



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I. Qualifications, assignment, materials considered, and organization.

1. My name is Richard J. Gilbert. I am Emeritus Professor of Economics and Professor of the Graduate School at the University of California at Berkeley. I was Chair of the Berkeley Department of Economics from 2002-2005, and I am currently Chair of the Berkeley Competition Policy Center. I am also a Senior Consultant at Compass Lexecon, a consulting firm specializing in economic and financial analysis. I am being compensated for my work on this matter at a rate of \$850 an hour.

I.A. Qualifications.

2. I received Bachelor and Master of Science degrees in Electrical Engineering from Cornell University in 1966 and 1967, respectively. I received a Master of Arts Degree in Economics from Stanford University in 1975, and a Doctor of Philosophy in Engineering-Economic Systems from Stanford University in 1976.

3. I specialize in the field of industrial organization and regulation. Industrial organization deals with policy issues related to the structure and performance of firms in an industry, with particular attention to competition and antitrust policy. From 1993 until 1995, I was the Deputy Assistant Attorney General for Economics in the Antitrust Division of the U.S. Department of Justice, the highest-ranking economics position in the Antitrust Division. While at the Antitrust Division, I led an effort to develop the Antitrust Guidelines for the Licensing of Intellectual Property (the "Intellectual Property Guidelines").

4. My curriculum vitae is provided as Appendix A to my Direct Testimony, and a list of my testimony since 2008 is provided as Appendix B to my Direct Testimony.

I.B. Assignment.

5. I was asked by the Antitrust Division of the U.S. Department of Justice to analyze

the economic rationale and competitive effects of the Apple Agency Agreements.¹ I also was asked to consider whether procompetitive benefits attributed by the defendants² to the Apple Agency Agreements in fact resulted from those agreements, have benefitted consumers, and have led to an increase in output of either e-books or print books. Additionally, I was asked to determine whether the defendant publishers' acceptance of the Apple Agency Agreements was consistent with their unilateral interests. I first addressed these questions in my initial report in this matter that I submitted on February 8, 2013, which is attached as Appendix C to my Direct Testimony.³

6. Finally, I was asked to respond to analyses submitted by defendants' economic experts. On March 1, 2013, I submitted my rebuttal report in this matter, attached as Appendix D to my Direct Testimony,⁴ in response to the February 8, 2013 reports from Dr. Michelle Burtis,⁵ Professor Benjamin Klein,⁶ Professor Kevin Murphy,⁷ and Professor Daniel Rubinfeld.⁸

I.C. Materials I considered when preparing my expert reports and this testimony.

7. In preparing both of my reports and this Direct Testimony, I reviewed a number

¹ The Apple Agency Agreements are the e-book distribution contracts entered into between Apple and each of the five defendant publishers between January 24 and January 26, 2010. Executed versions of the contracts are: PX-0001 (Hachette); PX-0005 (Harper Collins); PX-0003 (Macmillan); PX-0002 (Penguin); and PX-0004 (Simon & Schuster).

² The defendants in this action are Apple plus the defendant publishers: Hachette, HarperCollins, Macmillan, Penguin, and Simon & Schuster.

³ PX-0821.

⁴ PX-0822.

⁵ PX-0831 (Expert Report of Dr. Michelle Burtis on behalf of Apple Inc., Holtzbrinck Publishers, LLC d/b/a Macmillan and Penguin Group (USA) Inc., Feb. 8, 2013 (hereinafter "Burtis Report")).

⁶ PX-0829 (Expert Report of Professor Benjamin Klein, Ph.D. on behalf of Apple Inc., Feb. 8, 2013 (hereinafter "Klein Report")).

⁷ PX-0827 (Expert Report of Professor Kevin M. Murphy, Feb. 8, 2013 (hereinafter "Murphy Report")).

⁸ PX-0833 (Expert Report of Professor Daniel L. Rubinfeld on behalf of Holtzbrinck Publishers, LLC d/b/a Macmillan and Penguin Group (USA) Inc., Feb. 8, 2013 (hereinafter "Rubinfeld Report")). I understand that the United States and Penguin have settled their dispute, and Professor Rubinfeld is testifying in Penguin's ongoing dispute with the States. However, in order to make sure my testimony is clear, I do need to address Professor Rubinfeld in a few instances. I discuss Professor Rubinfeld's report at greater length in my March 1, 2013 report, and I stand by my analysis there.

of case materials, including depositions, expert reports, court submissions, data, articles, and white papers, which largely form the basis of my knowledge about the e-book industry. The materials I relied upon in preparing my reports is attached to the reports in Appendixes C and D.

I.D. Organization of my testimony.

8. In Section II, I present a high-level summary of conclusions.

9. In Section III, I describe the background of this case, including a brief description of the companies involved in the e-book industry and an overview of the key events in question.

10. In Section IV, I describe the defendants' expressed motivations that were relevant to the negotiation of the Apple Agency Agreements and why their goals could not be achieved acting alone.

11. In Section V, I identify the key components of the Apple Agency Agreements and explain why those key provisions have led to price increases.

12. In Section VI, I relate my finding that retail prices for defendant publishers' newly released and bestselling e-books generally were set at the price caps contained in the Apple Agency Agreements.

13. In Section VII, I analyze the effects the Apple Agency Agreements had on the market, specifically the harm the agreements actually caused to consumers in the form of higher prices.

14. In Section VIII, I present the analyses that underlie my conclusion that trade e-books is a proper relevant market.

15. In Section IX, I respond to the few procompetitive benefits that Apple has identified as stemming from the Apple Agency Agreements and conclude that none of the procompetitive benefits claimed by Apple have been credibly attributed to the Apple Agency

Agreements.

16. Finally, in Section X, I address several points raised by the defendants' experts.

II. Summary of conclusions.

17. The defendant publishers, facilitated by Apple through the Apple Agency Agreements, and through follow-on agreements with other retailers, acquired control of and significantly increased retail prices for their e-books. Defendants' experts' empirical analyses support this conclusion despite their assertions to the contrary. As a result, consumers of e-books have paid substantially higher prices, not only for the defendant publishers' just-released and bestselling e-book titles, but also for the balance of their frontlist and their backlist titles.⁹ These price increases flowed from three attributes common across all of the Apple Agency Agreements: agency pricing, price caps, and retail-price most-favored nation (MFN) clauses. Taken together, I call this the Apple agency model.

18. The defendant publishers have in both internal communications and communications between publishers identified three objectives for their simultaneous adoption of the Apple agency model and its higher prices, all of which are industry-wide and long-term in nature.

19. First, the defendant publishers wanted to raise the retail prices for e-books generally, particularly from the \$9.99 price point that Amazon set for just-released titles and New York Times Bestsellers. Defendant publishers aimed to prevent the solidification of

⁹ For the purposes of this testimony, I use "new release" and "frontlist" interchangeably to refer to the e-book titles defined to be "new releases" in the Apple Agency Agreements, which are digital versions of hardcover titles in their first 7–12 months of publication. These are subject to the Apple Agency Agreements' price caps. "Backlist" e-books are the older, non-bestselling e-books that are not subject to the price caps in the Apple Agency Agreements. I use "just-released" to refer to e-books that have been released in the past 90 days. Amazon typically priced these just-released e-books at \$9.99 when it set retail prices. I use "bestselling" or "bestseller" to refer to titles that were on certain New York Times Bestseller lists. Amazon typically priced these e-books at \$9.99 when it set retail prices and these e-books also are singled out by the Apple Agency Agreements for their own price caps.

consumers' expectations that books should be sold at low prices, which they feared could apply downward pressure to the publishers' wholesale prices of e-books and traditional print books.

20. Second, the defendant publishers were concerned that the growing base of e-book-buying consumers who used Amazon e-readers and apps would increase Amazon's power to negotiate lower wholesale prices for e-books from defendant publishers.

21. Third, the defendant publishers wanted to prevent Amazon from becoming a serious competitor to publishers. Amazon's growing popularity with e-book customers threatened defendant publishers' traditional role as intermediaries between authors and retailers by creating the prospect that Amazon could attract authors to publish directly through Amazon.

22. One source of Amazon's popularity with e-book customers was Amazon's policy of charging low prices for just-released and bestselling e-book titles. By agreeing to the Apple Agency Agreements, the defendant publishers effectively eliminated inter-retailer price competition for the most popular e-book titles, thus reducing Amazon's ability to differentiate itself on price vis-à-vis other e-book retailers. Restricting Amazon's ability to differentiate itself through low e-book pricing furthered the defendant publishers' three long-term goals. Apple understood that it shared with defendant publishers a common interest in restricting price competition from Amazon and other e-retailers.

23. None of these industry-wide goals could have been achieved by a single defendant publisher moving to agency and unilaterally increasing retail e-book prices. A single publisher charging higher retail e-book prices would not have been sufficient either (a) to prevent the formation of consumer expectations of low e-book prices (based on the low retail prices being charged on all other publishers' just-released and bestselling titles), or (b) to have diminished Amazon's popularity with consumers sufficiently (i) to reduce Amazon's ability to

negotiate terms with publishers that are favorable to Amazon or (ii) to make Amazon unattractive as a publisher for authors.

24. The adoption of the Apple Agency Agreements was not rational for any individual defendant publisher on the basis of unilateral e-book profitability. Defendant publishers accepted the Apple Agency Agreements realizing that, despite the higher retail e-book prices that would result, each would on average receive less compensation per e-book sold because of the 30% commission on retail price to be paid to Apple. Further, each defendant publisher would have expected the higher retail prices to depress sales of its e-books. In other words, each defendant publisher would have expected to make less per e-book and to sell fewer e-books. Thus, no defendant publisher could have contemplated a unilateral move to agency under the terms of the Apple Agency Agreements on the basis of a short-term increase in profitability from e-books. A defendant publisher's participation in the Apple Agency Agreements thus was profitable only in combination with other defendant publishers' participation in those Agreements not unilaterally.

25. Apple understood both that (a) in order to achieve its own goals, the Apple Agency Agreements also would have to be acceptable to defendant publishers, and that (b) defendant publishers' goals by their nature would require common action by multiple publisher defendants. In addition, a key feature of the Apple Agency Agreements Apple's retail-price MFN helped to achieve the goal common to Apple and defendant publishers of eliminating inter-retailer price competition by incentivizing defendant publishers to, and aiding them in, forcing Amazon to accept agency terms.

26. The Apple Agency Agreements specified maximum retail prices (as a function of the hardcover list price of the corresponding print book) for e-books that are new releases or

New York Times Bestsellers. In order to achieve their respective goals, Apple and the defendant publishers had to reconcile their apparent divergent interests as to how high prices could rise, and Apple assured the publishers that their contract terms would all be essentially the same. Following the defendant publishers' adoption of the Apple Agency Agreements, each defendant publisher set the vast majority of its retail prices for its frontlist and bestselling e-books as if the applicable price caps were de facto prices for the titles. Despite assertions to the contrary, defendants' experts' empirical analyses also show that defendants' adoption of the Apple Agency Agreements led to higher retail prices for trade e-books and harmed consumers.

27. Defendants' experts have not demonstrated efficiencies from adoption of those agreements that outweigh the harms to consumers from higher prices. The entry of Apple as an e-book retailer did not lead to greater inter-retailer price competition because the Apple Agency Agreements restricted inter-retailer price competition on the commercially most important e-books. Defendants' experts referred to software innovations by Apple and device innovation generally but did not establish these as a source of significant benefit linked to the Apple Agency Agreements. Professor Murphy provided no evidence for his theory that, but for the iBookstore, Amazon would have boycotted or disadvantaged e-reading on the iPad. Moreover, there are compelling economic reasons that this would not have been the case.

28. Because the magnitude of the increases in retail prices of defendant publishers' e-books is high, and because I do not find significant procompetitive benefits, I conclude that consumers were harmed by the defendants' participation in the Apple Agency Agreements.

29. If moving to agency truly conferred benefits for publishers and retailers while protecting consumers from higher prices, these benefits could have been achieved through unilateral conduct.

30. The direct evidence of increased prices, resulting in consumer harm, demonstrates that trade e-books is a relevant product market. This finding is consistent with the way industry participants view the market, with an analysis of the differentiators between e-books and print books, and with internal industry participants' and my own empirical analyses showing insignificant substitution from e-books to print books in response to an increase in e-book prices. Defendants' experts have done no empirical work to refute trade e-books as a relevant market.

31. The relevant geographic market is the United States based on the geographic specificity of e-book retailers' rights to distribute e-book content and based on their ability to discriminate between consumers according to whether they are in or outside of the United States.

III. Industry background.

32. In this Section, I briefly present background on the e-books industry that provides context for my opinions. A fuller background section, including additional citations to evidence and information relied on, is included in my February 8, 2013 initial report.

33. An electronic book, or "e-book," is a publication in digital format that is often the electronic version of a print book. Today, e-books may be read on a variety of devices, including dedicated e-readers (such as the Kindle or the Nook), multipurpose tablets (such as the iPad), smartphones, and personal computers.

34. This matter concerns trade e-books. Trade e-books are general-interest fiction and nonfiction e-books.¹⁰

III.A. Market structure.

35. The largest U.S. publishers of trade books both print and digital are Hachette Book Group, Inc., HarperCollins Publishers LLC, Holtzbrinck Publishers, LLC d/b/a Macmillan,

¹⁰ The trade book (or e-book) category excludes textbooks and reference materials, children's books, and cookbooks.

Penguin Group, Random House, Inc., and Simon & Schuster, Inc. (collectively, the “Big Six”). Random House is the only member of the Big Six that is not a defendant publisher.

36. Table 1 displays the Big Six publishers’ shares of revenue from retail sales of trade e-books in the United States during the first quarter of 2010.¹¹ The titles of the defendant publishers collectively account for 48.8% of all U.S. retail trade e-book sales, averaged over this quarter.

Table 1: Publishers’ revenue shares of U.S. e-book sales, First Quarter, 2010

Publisher¹²	Revenue Share, 1st Quarter, 2010¹³
Penguin	19.5%
Random House	18.2%
HarperCollins	9.3%
Hachette	8.1%
Simon & Schuster	7.3%
Macmillan	4.7%
All others (“non-majors”)	33.0%

37. The largest U.S. retailers of trade e-books are Amazon, Apple, Barnes & Noble, Google, Kobo, and Sony. Each of these companies also sells devices that can be used to read e-books either dedicated reading devices that feature black-and-white e-ink screens (“e-readers”) or multipurpose tablet devices with color LCD screens (“tablets”), or both. Table 2 displays, during the first quarter of 2010, each retailer’s share of revenue from retail e-book sales in the United States.

¹¹ In all of my analyses with retailer data, I eliminated from consideration any title whose genre metadata indicated it was not a trade book.

¹² The defendant publishers are indicated by shading in Table 1.

¹³ The publishers’ shares were calculated for the period Sunday, January 3, 2010 through Saturday, March 27, 2010, from sales data from Amazon, Barnes & Noble, Kobo, and Sony. (Apple and Google were not e-book retailers during this period.)

Table 2: Retailers' revenue shares of U.S. e-book sales, First Quarter, 2010

Retailer	Revenue Share, 1st Quarter, 2010¹⁴
Amazon	80.0%
Barnes & Noble	9.9%
Sony	9.9%
Kobo	0.25%
Apple ¹⁵	0.0%
Google ¹⁶	0.0%

38. With the exception of Apple, which restricts e-books purchased from its iBookstore from being read on non-Apple devices, the major U.S. trade e-book retailers also offer free apps that enable their customers to read e-books on tablets, smartphones, computers, and other devices, including devices offered by other retailers.

III.B. The transition from traditional wholesale to the Apple agency model.

39. Around December 8-9, 2009, Apple began contacting the Big Six publishers to discuss Apple's entry into the trade e-books market. Apple had already scheduled its event to unveil the forthcoming iPad tablet on January 27, 2010. As Apple 30(b)(6) witness Keith Moerer testified:

At the time of the negotiations I didn't — yes, I knew we were launching a hardware device, and that hardware device, the iPad, was going to be launched with or without a bookstore.¹⁷

40. During a three-day period (January 24-26, 2010), Hachette, HarperCollins, Macmillan, Penguin, and Simon & Schuster all entered into the Apple Agency Agreements. Under these agreements, Apple would sell e-books through its iBookstore. The Apple Agency Agreements are described in detail in Section V.

¹⁴ The retailers' shares were calculated for the period Sunday, January 3, 2010 through Saturday, March 27, 2010, from sales data from Amazon, Barnes & Noble, Kobo, and Sony.

¹⁵ Apple did not open an e-book specific store until April 2010, and the Apple data I received did not start until then.

¹⁶ Google did not enter as a commercial e-book retailer until December 2010.

¹⁷ Apple (Keith Moerer) Dep. (Dec. 13, 2012), 36:21–24.

41. Apple's iBookstore was available to consumers through the iBooks app when the iPad launched on April 3, 2010. In June 2010, Apple made the iBooks app available on the iPhone and iPod touch devices as well.

42. Prior to adopting the Apple Agency Agreements, publishers sold e-books on a wholesale model—the same model that they used to sell print books. Under the wholesale model, publishers sold e-books to retailers at wholesale prices, which were generally a fixed percentage of the suggested retail price (or “list price”) of the e-book. Retailers then set retail prices at which e-books were sold to consumers. In contrast, under the Apple Agency Agreements, defendant publishers set the retail prices of their e-books and Apple received a 30% commission on each sale.

43. After signing the Apple Agency Agreements, the five defendant publishers all signed similar agency agreements with each of the e-book retailers with which they continued to do business, including Amazon, Barnes & Noble, Kobo, and Sony.¹⁸ All five of the defendant publishers wholly abandoned selling e-books on a wholesale model.

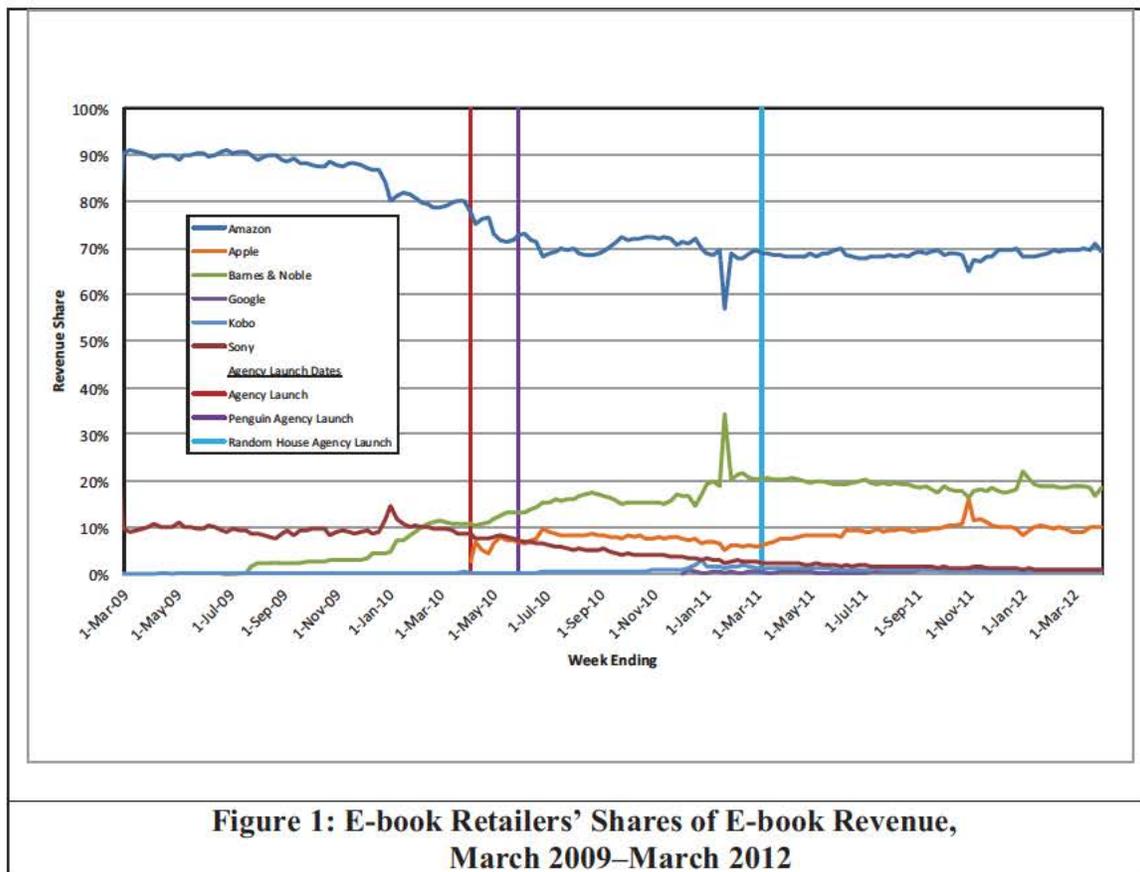
44. In late December 2010, following increasing pressure from Apple and Barnes & Noble, Random House began negotiations to enter agency agreements with e-book retailers.¹⁹ By March 2011, Random House had entered into agency agreements with Amazon, Apple, Barnes & Noble, Google, Sony, and Kobo.

45. Figure 1 displays the shares of e-book revenue held by the six largest e-book retailers throughout the period between March 2009 and March 2012. It appears that the entry of

¹⁸ The defendant publishers subsequently entered into agency agreements with Google.

¹⁹ *See, e.g.*, PX-0381 (June 14, 2010, email from Madeline McIntosh, reporting that she is “planning to take a fresh look at the Apple terms due to Apple insistence” and that Barnes & Noble also would like to change e-book terms); PX-0518 at 1 (RH-USDOJ-00018790) (Sept. 29, 2010, email from Madeline McIntosh, stating that she had an “[u]nproductive (verging on unpleasant) meeting with Apple. They are now threatening not to allow any RH apps into the App Store ‘since we don’t want to work with them.’”).

Barnes & Noble’s Nook, in late 2009, and Apple’s iPad, in early 2010, negatively impacted the market shares of Amazon and Sony.



IV. Defendant publishers and Apple were motivated to restrict inter-retailer e-book price competition.

46. In this Section, I examine defendant publishers’ and Apple’s motives that drove their decisions to enter into the Apple Agency Agreements, altering the structure of the e-book market and raising prices. This examination informs whether the publishers’ adoption of the agency agreements could be rational as unilateral actions, or if the decisions would make more sense in the context of collective action. As with the rest of my Direct Testimony, additional citations to the evidence and information I rely on in this Section are included in my reports (Appendices C and D).

47. I find that the publishers’ and Apple’s goals could not be achieved by a single

publisher entering into an Apple Agency Agreement. In addition, the adoption of the Apple Agency Agreements was not independently profitable for the defendant publishers. Therefore, defendant publishers' moves to agency can be understood as rational within the context of collective action, but not in the context of an independent unilateral action by any single publisher. Apple understood the defendant publishers' motivations and that its motivations were complementary to the defendant publishers' goals. Furthermore, Apple communicated to the publishers that each was getting essentially the same agency agreement and would thus be bound by the same terms.

IV.A. Defendant publishers were motivated to seek higher retail e-book prices.

48. From my review of the record in this case, it is clear that defendant publishers entered into the Apple Agency Agreements in order to increase the retail prices of e-books, particularly from the \$9.99 price point that Amazon set for just-released and bestselling titles. Defendant publishers articulated three primary goals that could be achieved by increasing retail e-books prices:

One goal was to prevent deterioration of consumers' willingness to pay high prices for books that could result from continued low e-book prices set by Amazon.

A second goal was to diminish Amazon's ability to demand lower wholesale e-book prices from the defendant publishers in the future, which would have reduced the defendant publishers' profits.

A third goal was to reduce Amazon's ability to become a publisher in its own right and thereby compete with defendant publishers and, more generally, threaten defendant publishers' traditional business model.

49. Documents from defendant publishers indicate that they feared that consumers

would become used to the \$9.99 price point for e-books. Defendant publishers worried that customers, once so accustomed, would place a lower value on books and, and eventually come to expect lower prices.²⁰ The \$9.99 price point concern was expressed explicitly in the context of a desire for higher retail e-book prices, including in the context of the defendant publishers' switch to the agency model.

50. Defendant publishers also expressed a concern about, and a desire to arrest, what they saw as Amazon's ability to demand lower wholesale prices from publishers in the future. Specifically, the publishers feared that Amazon was using the \$9.99 pricing on just-released and bestselling e-books to maintain (or increase) its significant share of e-book customers and that Amazon would eventually use the resulting power over the publishers to seek wholesale price concessions. Indeed, in 2009 Amazon requested that several publishers reduce their digital list prices. This would have the effect of lowering wholesale price, since the wholesale price is set as a percentage of the digital list price. Consumers typically benefit from lower wholesale prices, as firms generally pass through some of those saving to consumers in the form of lower retail prices.

51. Publishing houses feared that authors would sign directly with Amazon, and their documents clearly articulate this fear of "disintermediation."²¹ Amazon launched the imprint

²⁰ Such a concern is consistent with the marketing literature on "reference prices." A reference price is an expectation a consumer forms and uses to predict future prices. A consumer's history of purchases and, specifically, the prices at which she made those purchases, are considered to be a main determinant of the reference price the consumer forms. If a product's actual price exceeds a consumer's reference price, this can adversely (for the seller) influence the consumer's decisions about how much to purchase, when to purchase, and whether to search further for a better price. *See, e.g.*, Mazumdar, T., Raj, S.P., & Sinha, I., *Reference price research: Review and propositions*, 69 J. MARKETING 84 (2005); Grewal, D., Monroe, K. B., & Krishnan, R., *The effects of price-comparison advertising on buyers' perceptions of acquisition value, transaction value, and behavioral intentions*, 62 J. MARKETING 46 (1998); Kalyanaram, G. & Winer, R.S., *Empirical generalizations from reference price research*, 14 MARKETING SCI. G161 (1995).

²¹ *See, e.g.*, PX-0382 (May 4, 2009, email from Genevieve Shore to John Makinson, Will Etheridge, and Luke Swanson, titled "Amazon Task Force," describing a risk they might address as "The threat of disintermediation – content, routes to market and services"); PX-0426 at 1 (MCMLN-LIT-00115068) (Nov. 11, 2009, email from

AmazonEncore in 2009, and it had begun to make inroads into publishing by early 2010. Amazon's moves raised the specter of a new entrant into the publishing industry that would disrupt the defendant publishers' traditional business model. Defendant publishers had an incentive to reduce Amazon's attractiveness to authors in order to avoid competing with Amazon for content. As Amazon's ability to attract authors arose from its access to and patronage by a large body of e-book-purchasing consumers, defendant publishers looked to curtail Amazon's popularity with consumers, which was due in part to Amazon's low e-book prices.

IV.B. Apple wanted to restrict inter-retailer price competition.

52. When Apple launched the iPad in April 2010, it had a natural opportunity to start selling e-books. Apple faced relatively low barriers to becoming an e-book retailer because its new device easily could be used as an e-reader, and Apple had an established system for selling digital content, including music, movies, and television shows through its iTunes store.²² In addition, through its iTunes store and App Store, Apple had an established customer base with over 100 million credit cards on file and code that could be adapted for an e-bookstore.

53. By late 2009, Apple knew that major publishers wanted Apple to enter into e-book retailing, that they disliked Amazon's \$9.99 pricing practice, and that they desired higher retail prices, especially for just-released and bestselling e-books. Defendant publishers believed that Apple would be able to gain share in the e-books market quickly, and they discussed this with Apple. This gave Apple bargaining power with the publishers.

Carolyn Reidy to David Young and John Sargent, concerning the joint venture where she comments: "Recent actions by Amazon (with agents) and Google (with bookstores) confirm for me the necessity of trying to move quickly."); PX-0438 at 2 (PEN013191) (Dec. 2, 2009, email from Pearson board chairman, Glen Moreno, to David Shanks, saying that Penguin needs "to avoid being crushed by a dominant distributor, who controls pricing models and might build direct links with agents to eventually become a digital publisher (seattle)."); PX-0706 (Jan. 20, 2010, email from Penguin USA CEO David Shanks to Susan Kennedy and Tim McCall, regarding the Amazon announcement of 70 percent royalty option: "This is war.").

²² Apple sold digital content through its iTunes store using a wholesale/resale model.

54. My review of the record in this case indicates that Apple had a pair of goals that were in tension with each other. First, Apple wanted a significant, 30% gross margin on its sales of e-books. Second, Apple wanted its retail prices to be in line with those of other e-book retailers. After all, competing e-book retailers, such as Amazon, were only clicks away on the iPad.

55. I say that Apple's goals were in tension with each other because Apple knew that Amazon was selling New York Times Bestsellers and just-released e-books at \$9.99. To earn a 30% gross margin on a \$9.99 e-book, Apple would have to pay a wholesale price no greater than \$7.00,²³ well below the prevailing wholesale prices for just-released and bestselling e-books.²⁴ Apple understood that it would not be able to secure such low wholesale pricing and thus that it would not be able to earn its desired margin and match Amazon's prices under a standard wholesale/resale agreement.²⁵ However, if contracting with Apple would enable defendant publishers to raise retail prices, then defendant publishers might be willing to provide the gross margin that Apple wanted.

56. Apple also understood that achieving its two goals would necessitate a retail price increase because defendant publishers were not willing to reduce their average effective wholesale prices on just-released and bestselling e-books by enough to keep those retail prices at then-current market levels while also paying Apple a 30% commission.

²³ A wholesale price of \$7.00 would be 70% of \$9.99 and thus represent a 30% margin for Apple on a sale at \$9.99.

²⁴ See, e.g., PX-0599 at 3–4 (E-book Pricing Models).

²⁵ Apple (Keith Moerer) Dep. (Dec. 13, 2012), 109:7–10 (“[W]e did not want to enter a business where we were losing -- a new entrant losing a lot of money on the best-selling and -- and most visible titles.”).

David Naggar also noted “the ebook loss leaders represented a very small percentage of sales” and that “attractive pricing on front list titles . . . often prompts customers to make immediate purchases from the backlist.” Naggar Direct ¶ 12.

IV.B.1. Restricting price competition is not “competitive.”

57. Defendants’ experts have stressed that Apple insisted on the retail-price MFN in order to be “competitive.” There is, however, an important distinction between two different uses of the word “competitive.” As used in business, a company’s price is “competitive” if it is close to the prices of the company’s competitors. This is to be distinguished from “competitive prices” in an economic sense, where the phrase means that the prices are determined by competition.

58. Consumers generally benefit when prices are competitive in an economic sense and are harmed when companies take actions to ensure their prices are “competitive” by restricting price competition. For example, a price-setting cartel among suppliers harms consumers by elevating prices above competitive levels. Yet it also ensures that each supplier is “competitive” (in the business sense) with its rivals in that all the suppliers offer the same high prices.

59. The so-called “competitive prices” desired by Apple were achieved by restricting inter-retailer price competition through the move to agency, coupled with the Apple retail-price MFN. Notwithstanding references to “competitive” by the defendants’ experts, Apple’s e-book prices were “competitive” only in the business sense, not the economic one.

IV.C. Defendant publishers’ and Apple’s goals could not be achieved unilaterally.

60. Defendant publishers’ moves to agency can be understood as rational within the context of collective action, but not in the context of an independent unilateral action by any single publisher. This is clear for two reasons: first, the goals of defendant publishers and Apple could not be achieved if only one of the defendant publishers had entered into an Apple Agency Agreement, raising the retail e-book prices and prohibiting retailer discounting of its titles.

Second, the adoption of the Apple Agency Agreements was not independently profitable for defendant publishers.

IV.C.1. A single publisher raising retail e-book prices could not achieve defendant publishers' expressed goals.

61. The defendant publishers' motivations for entering into the Apple Agency Agreements preventing consumers from becoming accustomed to low e-book prices and reducing Amazon's power to negotiate decreases in wholesale prices and to attract authors are industry-wide in nature. These goals could not have been achieved by an individual publisher's unilateral move to agency; these goals could be furthered only by a critical mass of major publishers moving together to agency and higher retail e-book prices.²⁶

62. Since no defendant publisher had a share above 20%, increasing the retail prices of just one publisher would not have affected consumer expectations of price. Not only would such a lone mover not enjoy the benefits the defendant publishers sought, but as the sole high-price publisher it would have lost sales to the other defendant publishers. Price-sensitive consumers seeking bestsellers or other just-released titles would have shifted some or all of their demand from titles of the higher-priced publisher to titles from a still-discounted publisher.²⁷

63. The defendant publishers' goals of reducing Amazon's ability both to demand wholesale-price concessions from publishers and to disintermediate publishers by dealing directly with authors could not be achieved by a single publisher unilaterally moving to agency and raising the retail prices of its e-book titles. These threats Amazon posed to publishers' interests arose from Amazon's popularity with e-book-buying consumers because Amazon's

²⁶ Averaged over the first quarter of 2010, the defendant publishers accounted for approximately half of the revenue from U.S. retail e-book sales. *See* Table 1, *supra*. In the same period, the defendant publishers accounted for 55% of the revenue associated with new releases and an even higher share (74%) of the bestseller revenue.

²⁷ See Section IV.C.2 for my analysis finding that Random House and other non-defendant publishers took sales from defendant publishers following defendant publishers' higher prices after their switches to agency.

position as an e-book retailer gave it significant leverage in negotiations with publishers and, increasingly, with authors. A single defendant publisher moving alone to sign an Apple Agency Agreement and raise its retail e-book prices would not significantly reduce Amazon's popularity with e-book-buying consumers and lower Amazon's bargaining power.

64. Furthermore, no defendant publisher acting alone would likely have had sufficient bargaining power to negotiate an agency relationship with Amazon. Giving up retail pricing control to even a single publisher would constrain Amazon's marketing options, making Amazon's marketing of other books more difficult. For instance, Amazon no longer would be able to make the marketing claim that all newly released and bestselling e-books would cost no more than \$9.99. Instead, Amazon would have to break the "personal promise" of Amazon CEO Jeff Bezos, who "had been on many television shows saying you can get every book on the New York Times best seller list for \$9.99 on my device."²⁸ Amazon thus likely would have resisted agency from the first publisher to seek it, and Amazon's industry position gave it the power to punish such a publisher by disfavoring its titles. Furthermore, Amazon had an incentive to discipline the first publisher that moved to agency pricing in order to establish a reputation that would deter other publishers from moving to agency as well.

65. For example, a Simon & Schuster executive noted:

[W]e've always known that unless other publishers follow us, there's no chance of success in getting Amazon to change its pricing practices . . . without a critical mass behind us Amazon won't "negotiate."²⁹

²⁸ Macmillan (John Sargent) CID Dep. (Dec. 15, 2010), 35:17–20. *See also* Naggar Direct ¶ 15 ("First, we'd made a customer promise that they were going to be able to buy most *New York Times* bestsellers and new releases at \$9.99 and customer trust is something Amazon is deeply committed to.").

²⁹ PX-0344 (Sept. 23, 2009, email from Carolyn Reidy).

IV.C.2. The First Wave Agency Publishers lost sales volume after they raised e-book prices significantly, while non-defendant publishers gained sales volume.

66. If a publisher unilaterally moved to agency and raised its e-book prices significantly, its e-books would be more expensive than its competitors' e-books. I would expect that the increased prices would result in lost sales, some of which would be diverted to the titles of its competing publishers. An analysis of the facts surrounding the move to agency, addressing and confirming this hypothesis, follows.

67. Hachette, HarperCollins, Macmillan, and Simon & Schuster, the "First Wave Agency Publishers," implemented agency at Amazon and other e-book retailers in early April 2010 and immediately increased average retail e-book prices significantly.³⁰ This event provides an opportunity to test whether increases in the retail prices of some publishers' trade e-book titles lead to substitution to titles of competing publishers.

68. I compared each publisher's aggregate trade e-book unit volumes at Amazon, Barnes & Noble, and Apple before and after the switches to agency in early April 2010.^{31, 32} In particular, I selected two two-week-long windows for my analysis, one prior to the First Wave Agency Publishers' switch to the agency model ("pre-switch window") and the other after

³⁰ Penguin moved to agency at Apple and Barnes & Noble at the same time as the other four First Wave Agency Publishers did in April 2010, but it did not move to agency at Amazon until May 28, 2010. Until Penguin reached its agency agreement with Amazon, it did not make available e-book versions of its newest titles on Amazon (although Penguin e-books released prior to April 2010 continued to be available on Amazon). I excluded Penguin from my analysis because at this time it had implemented agency at Apple and Barnes & Noble but not at Amazon. Thus, interpretation of changes in Penguin's volume sold at the three retailers combined would be confounded because Penguin could be the beneficiary of price-driven substitution at Amazon at the same time that Penguin's volumes at Apple and Barnes & Noble could be depressed by Penguin's higher prices at those retailers, at least as to those titles not subject to retail-price MFNs.

³¹ In all of my analyses throughout this report involving calculations of unit sales volumes, I exclude units distributed at a zero price. Free units are often used as a marketing tool and necessarily have zero weight in all revenue analyses.

³² I did not include the unit sales at Sony in my analysis because these data appear to be anomalous for the week ending April 17, 2010. In particular, the Sony e-book sales data records far fewer unit sales for Simon & Schuster titles in that week than other weeks. (I understand that due to a contracting delay Simon & Schuster e-books may not have been for sale at Sony that week.)

(“post-switch window”).^{33, 34}

69. I further compared the combined e-book volume lost by the four First Wave Agency Publishers following their switch to the agency model to the e-book volume gained by Random House and the non-major publishers (together, the non-defendant publishers) that did not switch to the agency model at that time.³⁵

70. As shown in Figure 2 below, my analysis indicates that the four First Wave Agency Publishers collectively lost 77,307 units of e-book sales at Amazon, Apple, and Barnes & Noble after they switched to the agency model (and raised prices significantly), which corresponds to a 12.9% loss in unit sales. In contrast, the non-defendant publishers collectively gained 58,980 units in the same period, while maintaining roughly the same price levels on the relevant titles. This corresponds to a 5.4% gain in unit sales.

71. My finding is consistent with the hypothesis that some of the unit sales lost by the First Wave Agency Publishers, as a result of their higher prices, were diverted through consumer substitution to the titles of non-defendant publishers.³⁶ This finding is also consistent with an Amazon document that notes that Amazon provided Random House with “data that they are

³³ I selected the two weeks ending on March 13, 2010 and March 20, 2010, respectively, as the pre-agency window, and the two weeks ending on April 17, 2010 and April 24, 2010, respectively, as the post-agency window. I omitted the weeks in between these two windows in order to eliminate potential transient volume distortions due to variations in timing of the implementations of the First Wave Agency Publishers’ transitions to the agency model.

³⁴ My conclusion is qualitatively the same if I instead choose two one-week, three-week, or four-week windows for my analysis.

³⁵ At each of the two retailers Amazon and Barnes & Noble, I considered only e-book titles that were sold at that retailer in both the pre-switch and in the post-switch windows. (This excludes e-book titles that were sold at the retailer in only the pre-switch or only the post-switch window. Such titles would not have experienced price changes between the two periods.) At Apple I included all titles. (Apple did not sell any e-books in the pre-switch period. Random House did not sell e-books at Apple in the two-week post-agency period in my study.) My treatment of defendant publishers’ unit volume at Apple is conservative because defendant publishers were credited with sales at the iBookstore of all titles, even if those titles had not been available during the pre-switch period or would have been sold by a different e-retailer absent the iBookstore.

³⁶ My conclusion is qualitatively the same for titles that were sold as new releases or New York Times Bestsellers for at least one week in both periods as well as for backlist titles.

seeing significant share shift which helps them stay the course [of not joining ‘everyone else’ in agency] . . . agency pubs are losing sales and RH is gaining share.”³⁷

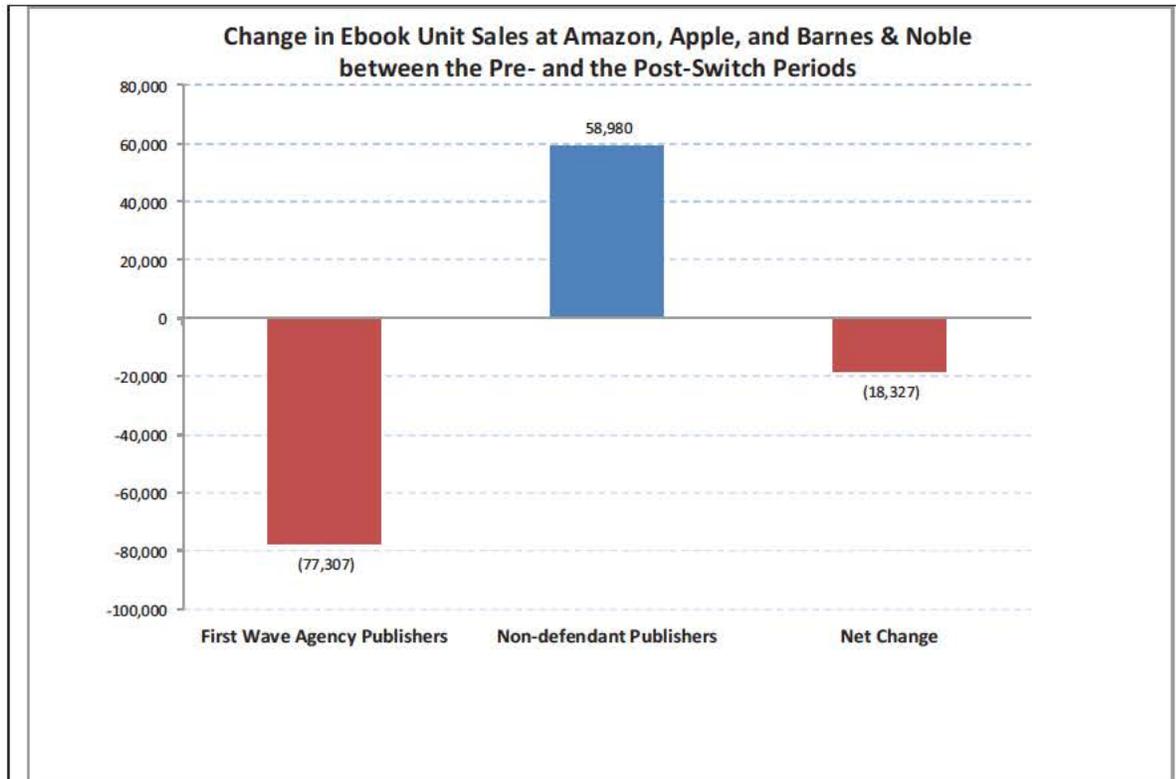


Figure 2: First Wave Defendant Publishers lost unit sales after their prices increased, while unit sales of non-defendant publishers increased

72. Dr. Burtis’s critique of my analysis is unfounded. Her central claim is that my analysis “does not account for factors other than agency that could have contributed to changes in eBook sales” and she concludes that it “cannot be relied upon to draw conclusions about the impact of agency on eBook Sales.”³⁸ To the contrary, my choice of a short window of time over which to measure the effect of the Apple Agency Agreements minimizes any potential impact of other confounding effects.

³⁷ PX-0605 at 1 (AMZN-MDL-0160900). See also PX-0549 at 1–2 (AMZN-TXCID-0007076–077) (Apr. 22, 2010, email from Suresh Dhandapani, titled “Daily US Agency eBook Sales Report”).

³⁸ PX-0832 (Burtis Rebuttal Report ¶ 12).

73. Dr. Burtis's price analysis, on the other hand, selected a window of several years over which to measure the effect of the agreements, and it fails to control for anything else that could have affected prices over her long-analysis window.

74. Similarly, Dr. Burtis's analysis of output effects failed to control for other factors that might explain changes in output over time. In particular, the analysis ignores the persistent upward trend in e-book output, both before and after adoption of the Apple Agency Agreements. E-reading was a nascent and growing market when the Apple Agency Agreements went into effect. The relevant question is whether the adoption of the Apple Agency Agreements led output to grow more quickly than it would have absent the agreements. Table 1 in Dr. Burtis's rebuttal report shows clearly that non-defendant publishers' sales increased significantly following adoption of the Apple Agency Agreements, as would be expected, in part, because of the upward secular trend in output. In contrast, defendant publishers' e-book sales actually contracted despite the upward secular trend in sales, consistent with the price increases caused by the agency agreements. Her finding, though, that the net change was positive cannot be attributed to the Apple Agency Agreements because it completely fails to address the secular growth trend in output.

IV.C.3. The adoption of the Apple Agency Agreements was not independently profitable for the defendant publishers.

75. The defendant publishers' moves to agency cannot be understood as the rational independent unilateral actions of individual publishers because adopting agency would not have been profitable for each defendant publisher acting independently, and as described above, the expressed long-term goals were collective, industry-wide goals that could not be achieved independently.

76. As I explained in Section IV.B above, Apple wanted a 30% margin on e-book

sales at its iBookstore. Achieving this margin would require some combination of increasing retail e-book prices and decreasing publisher revenues. As I discuss later, in Section V.A, Apple also insisted on price caps on new-release and bestselling e-books that constrained how high retail e-book prices could rise.

77. Defendant publishers prospectively modeled the effect of moving to agency and paying a 30% commission to retailers on the average effective wholesale price paid to publishers for the sale of e-books. The analyses include increases in the retail prices of e-books. For many titles, however, the significant commission publishers would pay under agency more than negates the increase in retail price, leaving the defendant publisher retaining less money per unit.

78. For example, a Penguin analysis compares Penguin's average pre-agency revenue for e-books that correspond to current hardcover print books with the average revenue Penguin would receive for the same e-books under agency. The analysis finds that Penguin would receive on average \$4.82 less per e-book version of the hardcover print book sold under agency than it would under the wholesale model.³⁹

79. Penguin's analysis concludes more generally that, on average over all its e-books, Penguin would receive only \$6.89 per unit sold under agency compared to \$7.60 per unit sold under the wholesale model. Thus, agency imposes a penalty on Penguin of \$0.71 per unit (or 9.3%) relative to the wholesale model. This is only the per unit effect on Penguin's profitability; at higher retail prices, Penguin also would expect to sell fewer units.⁴⁰ Lower expected profit per

³⁹ See, e.g., PX-0599 at 3–4 (E-book Pricing Models, showing that unlike on hardcover e-books, on e-books corresponding to a trade paperback or mass market paperback, Penguin received more per unit under agency than under the wholesale model. However, after accounting for the fraction of Penguin's e-book business each of these categories of e-books (i.e., hardcover, trade paperback, and mass market paperback) represents, Penguin's analysis is clear that the \$4.82 agency penalty for hardcover e-books swamps the relatively small agency advantage for trade-paperback and mass-market e-books).

⁴⁰ See Section IV.C.2 for a discussion of my analysis showing that the four defendant publishers that first went to agency at Amazon experienced significant loss of sales volume as a result of their higher, agency prices.

unit coupled with fewer units expected to be sold results in reduced anticipated profits in the short term as a result of the move to agency.

80. Hachette recognized a potential additional cost, the need to:

raise author royalty rates to keep them whole, further eroding our profit margin. . . . We need to understand [sic] that this margin would be further eroded by increasing author royalties, or paying authors on the digital list price without deducting Apple's "commission."^{41, 42}

81. Hachette explicitly recognized that it was trading off short-term e-book profits in search of long-term industry-wide changes:

One effect of this arrangement would be to swap a significant amount of current margin to change the public perception of price by (between one and three dollars), and add a new powerful player to the ebook ecosystem.⁴³

82. Documents showing that defendant publishers knew at the time they entered into the Apple Agency Agreements that they would on average receive less per e-book sold under agency are consistent with my empirical findings of what actually occurred.⁴⁴ My analysis of Amazon sales data shows that each of the defendant publishers experienced a decrease in the average per unit net revenue it received as a result of the defendant publishers' move to the Apple agency model. For the defendant publishers, the average decrease in the average per unit net revenue was 15.1%. The individual publisher average decreases ranged from 4.0% for

⁴¹ PX-0559 at 2–3 (HBG00097665–666) (Jan. 19, 2010, email from Maja Thomas David Young).

⁴² Under the agency model, the "list price" of an e-book (i.e., the "cover price") was replaced by the consumer price, which was frequently lower. As a result, authors whose e-book royalties were set by contract at a percentage of list price faced a substantial decrease in royalties post-agency.

⁴³ PX-0559 at 2 (HBG00097665) (Jan. 19, 2010, email from Maja Thomas to David Young).

⁴⁴ *See, e.g.*, PX-0506 (Jan. 20, 2010, email from Robbert Zaffiris to Charlie Redmayne, quantifying the expected reduction in HarperCollins' profits in the short term from its move to agency: "here is the profit hit for switching to the agency model for general books. It's about \$3.5M in revenues on \$20M or 17% (Brian's saying 20%) while profit is \$2.6M."); PX-0559 at 1–2 (HBG00097664–665) (Jan. 19, 2010, email from Deirdre Baule to David Young, summarizing projected P&Ls: "In all scenarios, the Apple proposal yields a lower HBG [Hachette Book Group] gross profit for eBooks than for print" in response to an email below from Maja Thomas characterizing the impact of the deal on its e-book profits: "This represents a significant loss in profit margin for HBG [Hachette Book Group] (25–30%) . . ."); PX-0080 at 1 (MCMLN-LIT-00010236) (Jan. 19, 2010, email from John Sargent acknowledging, shortly prior to signing the Apple Agency Agreement, that: "Short term it will be a loss. Long term we would be in a much better strategic position.").

Hachette to 29.3% for Macmillan.⁴⁵

83. I conclude that defendant publishers experienced short-term losses from their simultaneous moves to agency. An individual publisher moving to agency unilaterally would likely have suffered even greater losses, not only because such a unilateral move would have failed to achieve the industry-wide goals described in Section IV.A, but also because such a high-priced lone mover would have lost additional unit sales to the other defendant publishers. This makes it clear that defendant publishers' moves to agency cannot be seen as rational within a context of unilateral action. Thus the defendant publishers' moves to agency can be understood as rational within the context of collective action but not as rational for any single publisher acting alone.

IV.D. Professor Murphy's claim that Apple acted in its own interests does not imply that Apple did not facilitate a conspiracy among defendant publishers.

84. Professor Murphy concluded in his initial report that "Apple's conduct is consistent with its own independent business interests (as opposed to a conspiracy)."⁴⁶ However, Professor Murphy offered no reason why, as a matter of economic theory, it is necessary for a firm alleged to have facilitated a conspiracy as opposed to the horizontal competitors who are conspiring to act contrary to its unilateral interests for the conspiracy to succeed. Indeed, Professor Murphy conceded in his deposition that an upstream conspiracy "could benefit" a

⁴⁵ I calculated each defendant publisher's weighted-average net revenue per e-book sold in each of two weeks, one shortly prior to the defendant publisher's move to agency and the other shortly after that move. For the earlier week, I calculated the weighted average wholesale price of the defendant publishers' title. For the later week, I calculated 70% of the weighted average retail price in that week of the same titles. For the week shortly prior to the defendant publisher's move to agency at Amazon, I used the week ending March 20, 2010, for Hachette, HarperCollins, Macmillan, and Simon & Schuster, and the week ending May 15, 2010, for Penguin. For the week shortly after the defendant publisher's move to agency at Amazon, I used the week ending April 17, 2010, for Hachette, HarperCollins, Macmillan, and Simon & Schuster, and the week ending June 12, 2010, for Penguin. I restricted attention to titles that had positive sales in both weeks.

⁴⁶ Murphy Report ¶¶ 8, 11.

downstream player.⁴⁷ Professor Klein conceded in his deposition that it is “possible” that Apple was both acting in its unilateral independent business interests and facilitating a publisher conspiracy.⁴⁸

85. Professor Murphy also asserted that “Apple’s actions” do not indicate that it “must have known that the publishers were engaged in a conspiracy.”⁴⁹ Professor Murphy does not appear to dispute that Apple recognized defendant publishers shared a common goal to increase retail e-book prices. His claim, as I understand it, is merely that Apple may not have been aware that defendant publishers were pursuing that common goal collectively rather than individually. As to whether Apple knew defendant publishers were coordinating their actions or whether Apple served as an information conduit in an effort to facilitate such coordination neither Professor Murphy nor I have much assistance to offer the Court for that is not an economic determination, but rather a determination that should be made by the finder of fact.⁵⁰

V. The Apple Agency Agreements allowed defendant publishers to set higher retail prices while satisfying Apple’s requirements.

86. In this Section, I identify key components in the Apple Agency Agreements and explain why those provisions led to higher retail e-book prices.

87. Each defendant publisher signed an “Ebook Agency Distribution Agreement” with Apple during the three-day period of January 24–26, 2010. These agreements put into place a distribution model very different from the traditional wholesale distribution model, which

⁴⁷ Kevin M. Murphy Dep. (Mar. 26, 2013), 213:14–214:13.

⁴⁸ Benjamin Klein Dep. (Mar. 26, 2013), 28:15–29:12.

⁴⁹ Murphy Report ¶ 8.

⁵⁰ Professor Murphy conducted his analysis of Apple’s conduct “from an inferential basis,” on the assumption of “no direct evidence of Apple’s participation in a conspiracy as alleged in the complaint,” and that the import of any such evidence was for the trier of fact to assess. Kevin M. Murphy Dep. (Mar. 26, 2013), 93:8–98:18.

defendant publishers previously used to sell e-books.⁵¹

88. Apple's agency agreements with the five defendant publishers, which are essentially identical in structure as well as with respect to many of the key terms, enabled the defendant publishers to achieve their primary goal of increasing the prices of just-released and bestselling e-books above \$9.99. The Apple Agency Agreements granted each defendant publisher the authority to set the retail prices of each of its titles in Apple's iBookstore, subject to agreed-upon price caps (which became de facto prices for the vast majority of affected e-book unit sales), and each Apple Agency Agreement included a retail-price MFN clause.

89. After first detailing the price caps and describing how they served to reconcile the apparently divergent interests of Apple and the defendant publishers, the bulk of this Section provides an in-depth discussion of how the retail-price MFNs in the Apple Agency Agreements gave defendant publishers added incentives to move Amazon and all other e-book retailers from the traditional wholesale model to the agency model. This discussion builds on my deposition testimony in response to Apple's economics expert, Professor Klein, who claims that the MFN played no significant role in Amazon's adoption of the agency model. Finally, this Section considers the possible theoretical procompetitive benefits of agency models (including those articulated by Apple's economics expert, Professor Murphy), but concludes that in this case any theoretical benefits are insufficient to counteract the adverse effects of the observed retail price increases.

V.A. The Apple Agency Agreements set retail-price caps for new releases and titles on New York Times Bestseller lists.

90. Exhibit A of each Apple Agency Agreement specified the maximum retail price

⁵¹ Had Apple entered under a wholesale model, Apple would have set the retail price, paid the publisher its wholesale price, and retained the margin between the retail price and the wholesale price.

the defendant publisher could set for a frontlist e-book based on the title’s hardcover “list price” and the title’s status as either a “new release”⁵² or a New York Times Bestseller.⁵³ These price caps, detailed in Table 3, are almost identical across all five of the defendant publishers’ Apple Agency Agreements.⁵⁴

Table 3: The price caps in the Apple Agency Agreements

Hardcover list price	Maximum price to customer	
	New releases	NYTimes Bestsellers override caps
\$20.01 \$22.00	\$9.99	
\$22.01 \$24.00	\$10.99	
\$24.01 \$25.00	\$11.99	
\$25.01 \$27.50	\$12.99	
\$27.51 \$30.00	\$14.99	\$12.99
\$30.01 \$35.00	\$16.99	\$14.99
\$35.01 \$40.00	\$19.99	

⁵² Each defendant publisher’s Apple Agency Agreement provided a definition of “new release.” The definition specifies a period of time following the first publication by the publisher of the title during which the title is considered a new release. For Hachette, Macmillan, and HarperCollins, the new-release period is 7 months; for Penguin and Simon & Schuster, this period is 12 months. In some circumstances, the “new release” period can be cut short by the launch of a paperback version of the title. For example, Penguin’s 12-month new-release period is terminated whenever the title is no longer available only in hardcover. *See* PX-0002 at 1 (APLEBOOK00384792) (Penguin-Apple Agency Agreement, ¶ 1(g)). For this analysis and all subsequent analyses, an e-book is considered a new release on a given date if the title’s first publication date is within the past seven months and a backlist title if the book’s first publication date was more than twelve months prior and that book was not a bestseller.

⁵³ The Apple Agency Agreements specify price caps for titles on the New York Times hardcover fiction, nonfiction, and advice bestseller lists. Consistent with my understanding of the Apple Agency Agreements, I excluded from this category titles appearing below the line “Also Selling,” which constitute what is known as the “Expanded List.” In my analysis, a title must be a “new release” in order to be treated as a New York Times bestseller.

⁵⁴ In the HarperCollins Apple Agency Agreement, the lower limit of the lowest list-price tier is 1¢. *See* PX-0005 at 13 (APLEBOOK00384845) (“Exhibit A”). The lower limit of the lowest list-price tier in each of the other four defendant publishers’ Apple Agency Agreements is \$20.01. *See* PX-0001 at 14 (APLEBOOK00384745) (“Exhibit A” of Hachette’s Apple Agency Agreement); PX-0003 at 16 (APLEBOOK00384822) (“Exhibit A” of Macmillan’s Apple Agency Agreement); PX-0002 at 13 (APLEBOOK00384804) (“Exhibit A” of Penguin’s Apple Agency Agreement); PX-0004 at 16 (APLEBOOK00384770) (“Exhibit A” of Simon & Schuster’s Apple Agency Agreement). The price tiers otherwise are identical across all Apple Agency Agreements. Although the set of price caps is essentially identical across defendant publishers, the new-release criteria that can trigger application of the price caps varies across defendant publishers as explained above.

91. The price caps in the Apple Agency Agreements served to reconcile the apparently divergent interests of Apple and the defendant publishers. Apple expressed the fear that the defendant publishers would set e-book prices that Apple viewed as “too high,” though the price caps were still well in excess of pre-agency prices for most frontlist and New York Times Bestselling e-books. My reading of the record which is consistent on this point with Professor Klein’s reading⁵⁵ indicates that Apple knew that the defendant publishers would have preferred even higher caps, or no caps at all.

92. This interpretation is consistent with my finding, discussed in Section VI, regarding price cap compliance at both Apple’s iBookstore and at Amazon. Among the new releases and bestselling e-books titles that I could test, a very high proportion of defendant publishers’ sales were at prices equal to the price caps specified in the Apple Agency Agreements. Moreover, given the pricing incentives from the Apple Agency Agreements and the objectives of the parties to the agreements, it is reasonable to conclude that Apple and the defendant publishers expected this outcome.

V.B. Apple’s retail-price MFN was a commitment to adopt the agency model at other e-book retailers.

93. Apple’s retail-price MFN restricted inter-retailer price competition and was a commitment for defendant publishers to adopt the agency model at other e-book retailers. The MFN gives Apple the right to require that the retail price for a frontlist e-book title at the iBookstore is no greater than the price for that title at any other e-retailer.⁵⁶ This requirement

⁵⁵ See Benjamin Klein Dep. (Mar. 26, 2013), 174:3–11.

⁵⁶ See, e.g., PX-0001 at 5 (APLEBOOK00384736) (Apple Agency Agreement with Hachette, signed Jan. 24, 2010 at ¶ 5(b)). In the Macmillan Apple Agency Agreement, the MFN is loosened just enough to conform to Apple’s requirement that all e-book prices end in \$.99 without requiring the price at Apple to be below the price at other retailers. (If another retailer’s price does not end in \$.99, the price at Apple would be the least

applies even if the publisher did not actually set that lower retail price. In particular, it applies even if the e-book is sold by an e-book retailer under the wholesale model, where the retailer has set the retail price.

94. This retail-price MFN had two primary effects: it restricted retail price competition between the iBookstore and other e-book retailers, and it significantly enhanced the commitment of each defendant publisher to adopt the agency model at other e-book retailers, particularly at Amazon, likely by making withholding of e-books a more credible threat.

95. The retail-price MFN in each Apple Agency Agreement was a commitment by the defendant publisher to adopt the agency model at other retailers as well. If a publisher had continued in a hybrid, mixed agency/wholesale environment, then its retail prices on the iBookstore would have been vulnerable to price discounting by any retailer still on the wholesale model. The lower that retailer discounted the retail price of the publisher's e-book title, the lower the retail price for that title would have been at the iBookstore. Such discounting would have decreased both the publisher's revenue (net of commission) at the iBookstore, as well as Apple's commission. It also would have undercut the defendant publishers' common goal of establishing higher retail price points for e-books.

96. Thus, the MFNs in the Apple Agency Agreements created an incentive for each defendant publisher to gain control of retail prices at all e-retailers by switching each to an agency model⁵⁷ in order to eliminate the vulnerability of its iBookstore retail prices and revenues to pricing decisions by wholesale-model retailers.

97. The magnitude of this additional incentive to switch other e-retailers to the agency

price that ends in \$.99 that is not \$1 or more greater than the other retailer's price.) PX-0003 at 5 (APLEBOOK00384811) (Apple Agency Agreement with Macmillan, signed Jan. 25, 2010, at ¶ 5(b)).

⁵⁷ The publishers not only moved to agency with Amazon and other retailers, but prohibited retailers from doing any promotions that allow consumers a direct discount or rebate on e-books.

model related to the defendant publishers' expected unit sales through the iBookstore.⁵⁸ The greater the expected unit sales (at a given price), the more revenue the defendant publisher would lose if the MFN forced it to match a lower price set by a retailer on the wholesale model.

Documents I have reviewed indicate that defendant publishers had high hopes for the success of an Apple e-book store. Thus, the MFNs in the Apple Agency Agreements provided a strong incentive to the defendant publishers to subsequently export agency to other retailers.⁵⁹ Further, the defendant publishers had an incentive to export agency quickly because they risked incurring the costs a of mixed agency/wholesale model during any period of delay.

98. Therefore, it is unlikely that a defendant publisher would have agreed to the Apple Agency Agreement unless it also anticipated switching to agency at all other e-retailers. Moreover, it would have been obvious to each defendant publisher that the MFNs created symmetric incentives for other defendant publishers to export agency to all other e-retailers as well. Thus, each defendant publisher could infer that signing its Apple Agency Agreement was, in effect, a commitment to switch to agency at all other e-retailers. Because Apple's policy was to offer similar terms and Apple shared information about how many publishers had signed or were negotiating its agency agreements, each defendant publisher understood that other publishers were making the same commitment.

99. My economic reasoning stated above comports with the documents that I have reviewed. Those documents indicate that Apple and the defendant publishers expected based on the Apple Agency Agreements, including their MFNs that the defendant publishers would

⁵⁸ Further, defendant publishers' expectations for the iBookstore, weeks before that store even launched, were necessarily uncertain. This additional risk strengthened the incentives of defendant publishers to move to agency at all other retailers.

⁵⁹ Indeed, the defendant publishers "indicated that, as a result of their agreements with Apple, they were unwilling to enter into non-agency agreements with Google." Turvey Direct ¶ 3.

move Amazon and all other retailers to the agency model.

100. An email between Apple executives relayed that Eddy Cue said that “any decent MFN forces the model,”⁶⁰ and an email drafted by Steve Jobs to Eddy Cue said:

I can live with this [the terms of the Apple Agency Agreements in close to final form], as long as they move Amazon to the agent model too for new releases for the first year. If they don’t, I’m not sure we can be competitive...⁶¹

101. In his authorized biography, Steve Jobs, Walter Isaacson quotes Steve Jobs on January 28, 2010, (prior to any defendant publisher actually signing an agency agreement with Amazon):

[W]e also asked for a guarantee that if anybody else is selling the books cheaper than we are, then we can sell them at the lower price too. So [defendant publishers] went to Amazon and said, “You’re going to sign an agency contract or we’re not going to give you the books.”⁶²

102. A HarperCollins document concluded that:

The Apple agency model deal means that we will have to **shift to an agency model with Amazon which with [sic] strengthen our control over pricing.**⁶³

103. An email from Simon & Schuster CEO Carolyn Reidy explicitly states that Simon & Schuster immediately needed to move other retailers to agency, as a result of the MFN in Simon & Schuster’s agreement with Apple:

The Apple iTunes [sic] eBook store will go live around the end of March In order not to be in a situation whereby we must price our adult new release eBooks sold through Apple at \$9.99, undercutting one of the reasons for making the deal, we need to change our eBook selling terms with our other

⁶⁰ PX-0065 at 1 (APLEBOOK-00369168) (Apr. 13, 2010, email from Pete Alcorn to Oliver Schusser, also noting that “it’s a giant win to keep pushing the MFN and forcing people off the amazon model and on to ours.”).

⁶¹ PX-0055 (Jan. 14, 2010, email from Steve Jobs to Eddy Cue).

⁶² PX-0514 at 10–11 (Walter Isaacson, STEVE JOBS 503–04 (2011)).

⁶³ PX-0529 at 12 (HC-TXAG-0816834) (Feb. 16, 2010, HarperCollins presentation entitled “HarperCollins Agents Catch-up”) (emphasis in original).

eRetailers before that date.⁶⁴

104. Tim Hely-Hutchison of Hachette observed that if the MFN clause remained in the Apple agency contract while Amazon or other retailers stayed on the wholesale model, Hachette would “los[e] control of our margins” as “Amazon or anyone else who lowered their price would be forcing us, in effect, to lower our price to Apple.”⁶⁵

105. In mid-February 2010, four of the defendant publishers had already moved to agency at Amazon, but Penguin had not yet completed an agency deal with Amazon. Penguin was sufficiently worried that having Amazon remain on the wholesale model while Apple and others were on agency would be so untenable that Penguin thought it might need to withhold new-release e-books from Amazon, in order to avoid creating low retail prices it would have to match on the iBookstore:

The discussions with Amazon are not going particularly well right now. They’re indicating we can only switch models [from wholesale to agency] at the end of our current contract term, which is November. *Given the clauses about price matching in the Apple contract*, this could mean that we have to suspend or delay certain sales of e-books to Amazon until the [Amazon] contract is renegotiated.⁶⁶

106. Another Penguin document, also from February 2010, compared circumstances in the United Kingdom, where Penguin had not yet reached a deal with Apple, to those in the United States after the Apple Agency Agreements:

⁶⁴ PX-0341 at 1 (SS00031715) (Feb. 11, 2010, email from Carolyn Reidy). I note that “[i]n order not to be in a situation whereby we must price our adult new release eBooks sold through Apple at \$9.99” is a clear reference to the MFN: as long as Simon & Schuster remained on the wholesale model at Amazon, given Amazon’s practice of pricing just-released titles at \$9.99, the MFN required Simon & Schuster to set a \$9.99 retail price at Apple’s iBookstore.

⁶⁵ Tim Hely-Hutchinson Dep. (March 18, 2013), 158:18–159:23.

⁶⁶ PX-0504 at 1 (PEN-LIT-00037261) (Feb. 15, 2010, email from Coram Williams to Pearson employees) (emphasis added). The phrase “clauses about price matching” is a direct reference to the MFN in Penguin’s Apple Agency Agreement. Penguin did, in fact, refrain from making new e-book releases available from April 1, 2010 to May 31, 2010 at Amazon, when it was still on a wholesale model with Amazon and an agency model with Apple.

I'm not sure we should be so worried about having two models [in the UK]. In other words, accept that we're locked in to Amazon for four years and trade on a wholesale model, but do a deal with Apple on agency terms. *Provided we can negotiate our way out of a price matching clause in the Apple UK contract, this could work.* . . . [I]t's the only way I can see of reconciling the two [models].⁶⁷

107. I note that the Penguin documents presented above do not appear to describe a withholding threat by Penguin against Amazon, but rather discuss withholding (in the US) as a *response* to Amazon's initial refusal to move to agency. That is, Penguin apparently was trying to mitigate the price-matching consequences of Apple's retail-price MFN. This illustrates the incentive effects of the Apple Agency Agreements, and of Apple's retail-price MFN in particular, to induce the withholding of e-book titles from Amazon, independent of any threat to move Amazon to agency.

108. In an April 15, 2010 email, Amazon's Steven Kessel described the strength of Penguin's motivation to move to agency at Amazon:

They are desperate to get us onto agency because until they do, they have to match our pricing on their bestsellers with their agency vendors.⁶⁸

109. Finally, Penguin's Tim McCall testified to the problem of being on an agency model and a wholesale model with Amazon:

We anticipated that Amazon would continue to exercise below cost discounting and if they did that, then Apple would be entitled to match that price and if Apple matched that price, then we would get 70% of that price and . . . we wouldn't have been able to afford the loss of margin.⁶⁹

⁶⁷ PX-0545 at 1 (PEN724727) (Feb. 18, 2010, email from Coram Williams to John Makinson) (emphasis added).

⁶⁸ PX-0605 at 1 (AMZN-MDL-0160900) (Apr. 15, 2010, email from Steven Kessel). I note that "until they do, they have to match our pricing on their bestsellers with their agency vendors" is a direct reference to the MFN in Penguin's Apple Agency Agreement. As long as Amazon is on the wholesale model with respect to Penguin, Penguin must set prices at each of its agency vendors that are no greater than Amazon's retail price of Penguin's titles.

⁶⁹ Penguin (Tim McCall) Dep. (Nov. 30, 2012), 125:13–126:24. *See also* PX-0106 at 1 (HBG00098079) (Jan. 25, 2010, email from Tim Hely-Hutchinson to Arnoud Nourry, "Given that the price matching clause is still there, is the implication that we will withhold ebooks from Amazon and other retailers unless they play ball with us on price . . . ?").

V.B.1. Defendant publishers successfully negotiated agency agreements with Amazon.

110. In the four months following the unveiling of the iPad, all five defendant publishers successfully negotiated agency agreements with Amazon. Amazon would have been better able to resist demands that it surrender retail pricing authority to an individual defendant publisher than it was to resist essentially simultaneous, identical demands from all five.⁷⁰ Individually, each defendant publisher accounted for less than 20% of Amazon’s total e-book sales. Indeed, Amazon’s top Kindle executive has testified that if Amazon had believed “that Macmillan was the only publisher that was going to require agency terms, we would not have negotiated the agency contract with them at the time.”⁷¹

111. The five defendant publishers together, however, accounted for approximately 50% of Amazon’s e-book sales. And Amazon understood that all five were committed to seeking agency agreements. As the same Amazon executive testified:

it was made clear to us by Simon and Harper and Macmillan and Hachette and Penguin, they were all going to require to us move to agency. And because we faced having to make that change with all of them simultaneously, . . . we knew that once the precedent was established, we were going to have to reach agency agreement with all five.⁷²

112. In achieving agency at Amazon, defendant publishers achieved one of their primary goals and removed one of the drivers of Amazon’s popularity with consumers: Amazon’s low prices for just-released and bestselling e-books. This had two effects that would further the defendant publishers’ other goals that I discussed in Section IV. First, a reduction in

⁷⁰ Google was similarly unable to resist the collective group of publishers demanding agency. Turvey Direct ¶ 5 (“Although Google would prefer to obtain ebooks from publishers under the wholesale model, it accepted agency terms from the largest trade publishers because these publishers produce works that account for a significant percentage of the most popular new books in the U.S. book trade (including a large percentage of titles from the New York Times Bestseller List), representing a large percentage of a retailer’s revenue.”).

⁷¹ Russell Grandinetti Dep. (Jan. 28, 2013), 291:4–7.

⁷² Russell Grandinetti Dep. (Jan. 28, 2013), 290:5–14.

Amazon's popularity among consumers would dampen Amazon's bargaining power over the defendant publishers and enable defendant publishers to more effectively rebuff requested concessions in wholesale prices. The elimination of inter-retailer price competition for e-books through the Apple Agency Agreements (and, in particular, retail-price MFN clauses) would make other e-book retailers relatively more attractive to consumers. This reduced defendant publishers' reliance on Amazon for e-book distribution, and would weaken Amazon's bargaining power.

113. Second, a reduction in Amazon's popularity among consumers would also reduce Amazon's attractiveness to authors and thus mitigate Amazon's threat to disintermediate the defendant publishers. Amazon's attractiveness to authors depends crucially on Amazon's attractiveness to e-book-purchasing consumers. By reducing Amazon's ability to differentiate itself from other e-book retailers by charging low retail e-book prices, the defendant publishers' moves to agency would weaken Amazon's disintermediation threat.

V.C. Professor Klein's argument that the threat of withholding new e-books from Amazon was sufficient to move Amazon to agency ignores the role of the Apple MFN and omits the benefits of agency pricing to the defendant publishers.

114. In his initial report, Professor Klein concluded that the "Apple MFNs did not compel publishers to move Amazon to agency."⁷³ This conclusion is at odds with documents that express the publishers' view that the MFN indeed did compel them to move to agency at Amazon. Disregarding the documentary evidence, Professor Klein based this conclusion on the results of a "hypothetical numerical example"⁷⁴ in which he posed and then answered a particularly framed question about the MFN clause in the Apple Agency Agreements.⁷⁵

⁷³ Klein Report, at Section III.A.

⁷⁴ Klein Report ¶ 19.

⁷⁵ Klein Report, at Section III.A.

115. His numerical example which he claimed explains the incentives of the defendant publishers and answers his question omitted the most important motivation of the defendant publishers: their desire to raise retail e-book prices at Amazon. Moreover, Professor Klein claimed to assess the impact of the MFN on publishers' incentives without properly comparing their incentives with an MFN to their incentives without an MFN.

116. Professor Klein denied that Apple's retail-price MFN played any significant role in publishers' success in moving Amazon to agency. Instead, he viewed publisher threats to withhold new e-books from Amazon as an alternative explanation, unrelated to Apple's retail-price MFN, for Amazon's abandonment of the wholesale model. He posited that "Apple's entry, along with the anticipated likely growth of Barnes & Noble . . . substantially changed the bargaining environment between Amazon and the publishers" and that this made withholding a more effective threat to pressure Amazon to move to agency.⁷⁶

117. The evidence indicates, however, that windowing e-books, which makes the e-book completely unavailable for a period of time, was a costly and unsuccessful strategy for the defendant publishers. Efforts to window e-books at all retailers pre-dated the Apple Agency Agreements and were unsuccessful at changing Amazon's low-pricing policy. Defendant publishers who had some experience with windowing by the end of 2009 or early January 2010 prior to the Apple Agency Agreements expressed negative views of the practice.⁷⁷ In a document from November 2009, Penguin recognized that "[i]f other publishers don't follow suit [in windowing], the predatory pricing [i.e., low pricing by Amazon] will continue, and we'll

⁷⁶ Klein Report ¶ 34 (citations omitted).

⁷⁷ Penguin (David Shanks) CID Dep. (Dec. 17, 2010), 20:12–30:25 (testifying that when Penguin delayed the e-book releases of author Catherine Coulter, upon her request, "we saw that we weren't selling significantly more hard cover copies of her books because there wasn't an eBook and more importantly when the eBook was finally released the sales were negligible, very small compared to authors that we were releasing simultaneously [in ebook and print book form]," so "from a monetary standpoint" windowing "wasn't a good business practice").

lose.”⁷⁸ According to Macmillan documents from December 2009, “[w]indowing is entirely stupid”;⁷⁹ the “[c]oncept is actually deeply flawed and will end up being a disaster if we keep doing it.”⁸⁰

118. A likely explanation for why the publishers’ view—as reflected in contemporaneous documents—of the effect of the MFN contradicts Professor Klein’s view is that the Apple MFN reinforced the effectiveness of any threat to withhold books from Amazon. A simple economic model of bargaining offers an instructive explanation for why publishers understood that the MFN enabled them to export agency—in short, because the MFN made it too costly to have prices on the iBookstore dictated by Amazon, it likely made the threat to withhold e-books from Amazon a credible threat.

119. As described above, after entering the Apple Agency Agreements, defendant publishers stood to earn substantially less revenue on the e-book sales they made through Apple and other agency retailers if Amazon maintained its low prices. Absent the MFN, it likely was not in the long-term economic interest of publishers to withhold books from a major e-retailer such as Amazon, even if some fraction of sales lost at Amazon could be replaced by sales through the iBookstore and other e-retailers such as Barnes & Noble. Although publishers reacted negatively to Amazon’s low prices, they still relied on Amazon to retail a large fraction of their e-books, and the entry of Apple did not eliminate Amazon as a significant e-retailer notwithstanding high expectations for Apple’s success. The MFN increased the effective benefit (to the defendant publishers) of withholding frontlist e-book titles from Amazon because doing so avoided revenue losses from lower prices at the iBookstore and at other e-retailers that had

⁷⁸ PX-0427 (Nov. 11, 2009, email from Tim McCall to David Shanks, Susan Kennedy, and Dick Heffernan).

⁷⁹ PX-0087 (Dec. 14, 2009, email from John Sargent).

⁸⁰ PX-0070 (Dec. 17, 2009, email from John Sargent).

MFN provisions in their publisher contracts. Of course withholding these titles from Amazon made it impossible for Amazon to offer the withheld titles at prices below the prices at the iBookstore and at other e-retailers with MFN provisions.

120. Apple's anticipated entry, *along with the MFN provisions in publishers' contracts*, made it profitable to withhold e-books from Amazon if Amazon continued to sell e-books at low prices on the wholesale model. The publishers would logically have focused on the effect of the retail-price MFN in the Apple Agency Agreements because they believed that Apple's entry and the anticipated growth of Barnes & Noble alone would have been insufficient to make withholding of e-books from Amazon a profitable strategy to induce Amazon to accept agency pricing. Thus, Apple's entry with the MFN provision likely made the withholding of e-books a credible threat, and left Amazon with little choice but to acquiesce to publishers' demands that it move to agency pricing of their e-books.⁸¹ The fact that Professor Klein's analysis failed to address the role of the MFN in reinforcing the credibility of a withholding threat at Amazon helps explain why his conclusions are inconsistent with the publishers' opinions regarding the effect of the MFN.

121. Professor Klein's example failed to fully address both the costs to publishers of withholding titles from Amazon and the benefits of withholding by avoiding revenue losses at Apple as triggered by the MFN. These complementary effects likely acted together to make withholding e-books from Amazon a credible threat, and they consequently caused Amazon to accept the agency pricing model. Professor Klein's example also erred by focusing on estimates of actual rather than expected e-book sales at the iBookstore (and at other e-retailers with MFN

⁸¹ Macmillan presented the choice to Amazon as "an ultimatum: either Amazon would agree to agency terms or Macmillan would delay the release of all new eBook titles for seven months following the release of the print book." Declaration of David A. Zapolsky in Support of Amazon's Response to Apple's Feb. 14, 2013 Motion to Compel, filed Feb. 19, 2013, at ¶12 (hereinafter "Zapolsky Decl.").

provisions in their publisher contracts). The magnitude of the incremental incentive generated by the retail-price MFN to withhold e-books from Amazon also depended directly on publishers' expectations of the success of the iBookstore. The larger Apple's expected share, the larger the potential penalty to a publisher would be from lost revenues at Apple as a result of price matching if the publisher did not withhold its e-books from Amazon, and the more easily publishers could shift e-book sales from Amazon to the iBookstore.

122. To support his view that the effectiveness of the threat to withhold titles was unrelated to the Apple Agency Agreements, Professor Klein cited a Hachette document dated December 2009,⁸² the minutes to a Hachette board meeting which included a discussion of windowing. However, this document makes clear that a Hachette policy to window had not been put into place as of that time, and that the details of any such policy had not yet been finalized.⁸³

123. Prior to the Apple Agency Agreements, some defendant publishers made windowing threats. However, these threats did not achieve timely changes from Amazon:

[O]n December 9, 2009, Simon & Schuster announced publicly that it would be delaying ebook editions of all of its new releases starting January 1, 2010. Over the next few weeks, HarperCollins and Macmillan also confirmed that they would be delaying ebook versions of several new titles. Amazon strongly objected and was working on its response to this more widespread windowing in mid-January, 2010.⁸⁴

124. Amazon's posture changed after the Apple Agency Agreements went into effect: "On January 31, facing identical demands from Hachette, HarperCollins, Simon & Schuster and Penguin, Amazon capitulated and told Macmillan it would negotiate an agency contract."⁸⁵ Thus

⁸² Klein Report ¶ 37 (citing PX-0417).

⁸³ A "list of 24 possible titles for windowing" was distributed at the meeting, but "no decision yet [has been made] on how many days for windowing," and discussions with authors and other parties were to take place before implementing any widespread windowing policy. PX-0417 at 4 (HBG00179253).

⁸⁴ Zapolsky Decl. ¶ 6.

⁸⁵ Zapolsky Decl. ¶ 14. *See also* Naggar Direct ¶¶ 27-28 ("Macmillan basically made it clear that it was really either agency or no ebooks at all, and the other four publishers did, too. Having no ebooks from these five

the evidence and the chronology of defendants' conduct with respect to withholding e-book titles from Amazon and the success of threats to withhold e-books are consistent with the conclusion that the Apple retail-price MFNs played a key role in reinforcing the credibility of a withholding threat.

V.D. Professor Klein's comparisons of the Apple and Amazon MFNs do not imply that the Apple MFN was procompetitive.

125. According to Professor Klein's initial report and Professor Murphy's rebuttal report, viewing the retail-price MFN provisions in the Apple Agency Agreements as a legitimate business practice is more consistent with the facts than viewing them as a "key commitment mechanism' of a collusive scheme."⁸⁶

126. In reaching this conclusion, Professor Klein ignored the context within which the Apple MFNs were adopted, in particular that the Apple MFNs were adopted as part of the Apple Agency Agreements, which facilitated the alleged conspiracy and raised retail e-book prices. In contrast, the Amazon and Barnes & Noble MFNs did not induce publishers to move to agency agreements with other retailers, and those individual MFNs did not have the effect of increasing prices. In fact, many of Amazon's retail-price MFNs are less restrictive than Apple's in that they only apply to the retail prices offered by other retailers that operate on an agency model, as opposed to all retailers.⁸⁷ Had Apple's MFN only applied to retailers on agency, it would not have been triggered by Amazon's low pricing so long as Amazon remained on a wholesale

publishers in the Kindle store was simply not an option for us. We could not do without titles from five of the largest publishers because we are primarily a content business."); Naggar Direct ¶35 ("We strongly resisted moving to agency and would not have done so but for these publishers insisting on it simultaneously.").

⁸⁶ Klein Report ¶ 32. *See also* PX-0828 (Murphy Rebuttal ¶ 12 ("In particular, both Amazon and Barnes & Noble have MFNs and price caps in their agency agreements with the Publisher Defendants, but Plaintiffs do not claim that those agreements imply that Amazon and/or Barnes & Noble participated in a conspiracy." (citations omitted))).

⁸⁷ *See, e.g.*, PX-0013 at 2–3 (HBG-HC-000002–003) (Mar. 31, 2010, Amazon/Hachette agency agreement at ¶ 4(b)(i)); PX-0015 at 4 (PEN017165) (May 31, 2010, Amazon/Penguin agency agreement at ¶ 3(b)(i)); Russell Grandinetti Dep. (Jan. 28, 2013), 232:24–234:21.

model.

V.E. Although some agency agreements can have procompetitive effects, the Apple Agency Agreements led to higher retail e-book prices for consumers.

127. At issue in this case is the simultaneous adoption by five publishers and Apple of an agency model for e-book pricing, including uniform price caps and a retail-price MFN, which resulted in price increases.

128. The particular circumstances in this case do not mean that agency contracts and MFNs negotiated bilaterally between one supplier and one retailer cannot have procompetitive benefits in other settings. When such terms are procompetitive, they generally serve to keep prices low or increase the output of the adopting firms. In contrast, the defendant publishers in this case raised retail prices and lost e-book sales (and shares) to their rival publishers, who did not adopt agency and whose retail e-book prices did not generally rise.⁸⁸ This finding suffices to show that, on balance, the agency contracts did not generate sufficient efficiencies to counteract the adverse effects of their associated retail price increases.⁸⁹

129. Contracts with agency terms or MFNs that are negotiated bilaterally between one supplier and one retailer can be procompetitive when they are designed to enhance inter-brand competition, even though they may also restrict intra-brand competition. For example, a supplier may desire to enter into an agency contract to prevent a retailer with market power from charging too high a price for its products. While this may limit the freedom of the retailer to price the product, it is designed to sell more of the supplier's products as it competes with other suppliers. Similarly, a supplier may prevent a retailer from discounting its products in order to ensure that the retailer has an economic incentive to promote or service sales of its product or because the

⁸⁸ See Section IV.C.2, *supra*.

⁸⁹ The Defendants have offered no credible reason why the Apple Agency Agreements should have increased non-defendant publishers' output.

supplier does not want its brand cheapened in comparison to those of its competitors.

130. Professor Murphy considered these possible procompetitive effects of an agency model in his initial report and added that agency can also encourage publishers to discount their products because discounts are automatically passed through to consumers.⁹⁰ These potential procompetitive claims are only valid, however, if they succeed in increasing output, lowering price, or increasing quality. Yet, they are not valid in this case, where I find that adoption of the Apple Agency Agreements simply increased prices.⁹¹ Professor Orley Ashenfelter independently reached the same conclusion in his initial report.⁹² Further, there has been no demonstration of increases in quality of e-books tied to the Apple Agency Agreements that would offset the significant price increases. Thus, the theoretical procompetitive benefits that both Professor Murphy and I have considered are not valid in this case.⁹³

131. Moreover, if the agency pricing model truly increased output by promoting e-book retailer efforts and inter-brand competition, publishers would have had unilateral incentives to move independently to adopt agency pricing. Yet the evidence (discussed below) indicates that the defendant publishers did not find it in their unilateral interest to move to agency pricing without the participation of their rivals.

132. Professor Murphy asserted that “[t]he challenged provisions in Apple’s

⁹⁰ Murphy Report ¶ 58.

⁹¹ See Section VII, *supra*.

⁹² Professor Ashenfelter performed an independent analysis that examined changes in price and unit sales of the titles sold by the defendant publishers, between a six-month period before and a six-month period following the defendant publishers’ switches to agency. Professor Ashenfelter concludes that the average price for the defendant publishers’ e-book titles increased by about 18.8% following the adoption of the Apple Agency Agreements and total unit sales of defendant publishers’ titles fell by about 14.9%. Report of Orley Ashenfelter in Connection with State of Texas et al. v. Penguin Group (USA) Inc. et al., Feb. 8, 2013 (hereinafter “Ashenfelter Report”), at ¶ 36.

⁹³ I would also note that Apple appeared to be willing to launch its iBookstore on wholesale terms instead of agency, if the wholesale prices had been lower, as their “initial assumption was that the wholesale model, the reseller model . . . would likely be the one that we would use.” Apple (Keith Moerer) Dep. (Dec. 13, 2012), 131:4-7.

agreements with publishers reasonably would have been expected to have a procompetitive (or competitively neutral) effect,”⁹⁴ because, he claimed, they were used by Apple in other ventures.⁹⁵ Yet, in his deposition, Professor Murphy admitted that the actual effect of these agreements, in particular whether they resulted in consumer harm, was not a focus of his analysis.⁹⁶ I demonstrate in Section VII that the Apple Agency Agreements resulted in substantial increases in the retail prices of e-books and harmed consumers.

133. Insofar as Professor Murphy argued that the existence of contractual agreements with possibly procompetitive or competitively neutral effects in some markets tends to exclude the possibility that similar contractual agreements can have anticompetitive effects in other markets, this argument is wrong as a matter of economic theory. For example, exclusive dealing and bundling arrangements can be procompetitive or competitively neutral in some settings, but anticompetitive in other settings.⁹⁷

V.F. Actions by defendant publishers that are inconsistent with independent conduct are less likely to be procompetitive.

134. The evidence in this case excludes the possibility that any of the defendant publishers profitably could have entered into an Apple Agency Agreement alone. This fact suggests that their conduct is less likely to be procompetitive.

135. In general, if a supplier were to independently enter into a vertical contract with a retailer that is anticompetitive, perhaps because it raises prices without creating offsetting value, that action would be subject to market discipline. If, however, a supplier is willing to enter into a

⁹⁴ Murphy Report, Opinion 4 (immediately preceding ¶ 15).

⁹⁵ Murphy Report ¶¶ 26–28.

⁹⁶ Kevin M. Murphy Dep. (Mar. 26, 2013), 12:16–14:7.

⁹⁷ See, e.g., Alden F. Abbott & Joshua D. Wright, *Antitrust Analysis of Tying Arrangements and Exclusive Dealing*, in ANTITRUST LAW AND ECONOMICS 183 (Keith N. Hylton ed., 2d ed. 2010); David Evans & Michael Salinger, *Why Do Firms Bundle and Tie? Evidence from Competitive Markets and Implications for Tying Law*, 22 YALE J. ON REG. 37 (2005).

particular vertical relationship with a retailer only if its competitors go along as well, that should serve as a red flag that the vertical contract may be anticompetitive. If such a contract were actually procompetitive and enhanced one publisher's ability to compete against the other publishers, then a publisher would tend to be willing to enter into the contract unilaterally.

136. The defendant publishers in this case adopted the Apple Agency Agreements because they desired higher retail e-book prices to avoid an outcome in which consumers would be conditioned to pay less for books generally. Further, they were strongly opposed to the influence of Amazon and were concerned that Amazon would attract authors and publish e-books, thereby displacing publishers' core business. These purported justifications do not benefit consumers.

137. Moreover, the goal of setting generally higher retail prices on frontlist e-book titles could not be achieved unless the retail prices of these titles rose at Amazon. Because Amazon was unwilling to raise those prices, the defendant publishers could not achieve this objective without switching to agency at Amazon, which would be costly to them. Notwithstanding the costs involved, defendant publishers had a rationale for moving to agency at Amazon in order to achieve the industry-wide goals they shared.

VI. After agency, defendant publishers set the vast majority of frontlist prices at the agency agreement price caps.

138. The United States' complaint states that “[a]lthough couched as maximum retail prices, the price tiers in fact established the retail e-book prices to be charged by Publisher Defendants.”⁹⁸ If true, I would expect the retail prices of e-books to be very close to the applicable price caps for those e-books. As I detail in this Section, I find that the defendant publishers did, indeed, adjust the retail prices on the vast majority of their frontlist and

⁹⁸ Complaint in U.S. v. Apple, Inc., et al., at ¶ 75.

bestselling e-book sales to the price caps established/set in the agency agreements.

139. I analyzed the retail prices of new releases and New York Times Bestsellers that each defendant publisher set at Amazon and at Apple in a five-month period following the publisher's switch to agency.⁹⁹ Four of the five defendant publishers switched to the agency model at Amazon at approximately the same time, in the first week of April 2010. Hachette, HarperCollins, Macmillan, and Simon & Schuster switched to agency at Amazon around April 3, 2010. Penguin's agency negotiations with Amazon were more drawn out, and Penguin did not switch to agency at Amazon until around May 28, 2010.

140. For each defendant publisher, and for Apple and Amazon, I calculated separately the proportion of sales of that publisher's (a) new-release titles, and (b) New York Times Bestseller titles that were priced at or very near the agency agreement retail price cap corresponding to the title's hardcover list price.¹⁰⁰

141. Table 4 documents that the vast majority of each defendant publisher's sales of new releases and New York Times Bestsellers at each retailer were at, or very near, the agency agreement price caps. For each publisher, each retailer, and separately for new-release titles and New York Times Bestseller titles, the table shows that the vast majority of the units sold were sold at a retail price within 1% of the applicable price cap specified in the publisher's Apple Agency Agreement. I use the 1% allowance to allow for numerical error due to rounding.

⁹⁹ I analyzed the prices for Hachette, HarperCollins, Macmillan, and Simon & Schuster for the period from May–September 2010. I chose July–November 2010 for Penguin at Amazon because Penguin moved to the agency model at Amazon at the end of May 2010. I understand that, unlike the other defendant publishers, Penguin was contractually bound to continue supplying most of its e-books to Amazon on a wholesale basis beyond April 2010.

¹⁰⁰ For example, Apple's agency agreement with Hachette states that the maximum retail price at Apple is \$12.99 for an e-book title whose corresponding print book is a new-release or New York Times Bestseller priced between \$25.01 and \$27.50. PX-0001 at 14 (APLEBOOK00384745). I calculated the proportion of unit sales of such e-books for which the retail price is within 1% of \$12.99. I aggregated these sales across all of the price bands in a given agency agreement, reporting two numbers for each publisher: the proportion of sales of new-releases at or near the cap and the proportion of sales of New York Times Bestsellers at or near the cap.

Table 4: The degree to which defendant publishers' prices were set at the applicable price cap (with Random House included as a control)

Degree to which prices were at the applicable price cap (% of units sold at a price within 1% of the maximum price specified in the publisher's Apple Agency Agreement)				
Retailer	Apple		Amazon	
Publisher	New Releases	New York Times Bestsellers	New Releases	New York Times Bestsellers
Hachette	96.3%	99.7%	89.9%	100.0%
HarperCollins	90.0%	100.0%	84.6%	95.6%
Macmillan	81.1%	100.0%	76.3%	98.7%
Penguin	98.4%	100.0%	92.2%	99.3%
Simon & Schuster	91.3%	97.9%	83.7%	90.1%
Defendant publishers combined	92.1%	99.4%	85.7%	96.8%
Random House ¹⁰¹	N/A	N/A	2.5%	0.0%

142. For example, at Apple, 96.3% of Hachette's new-release units and 99.7% of Hachette's New York Times Bestseller units sold during the five-month window were priced at the maximum price stipulated in the Apple Agency Agreement. At Amazon the corresponding fractions were 89.9% and 100.0%. When the units of all defendant publishers are aggregated together, these publishers collectively adhered to the specified price caps at Apple on 92.1% of new-release units and on 99.4% of New York Times Bestseller units.

143. These empirical findings are consistent with the allegation that the defendant publishers and Apple understood that e-books would be sold at their capped prices. Defendants' own expert, Dr. Burtis, also found that a high percentage of defendant publishers' new release and New York Times bestselling e-books were set at the price caps.

144. As a control, I also analyzed the pricing of non-defendant publisher Random

¹⁰¹ Random House e-books were not sold through the iBookstore during the relevant period.

House at Amazon and the results of that analysis can also be found in Table 4. Only 2.5% of Random House's new-release units and 0.03% of Random House's New York Times Bestseller units sold at Amazon during the five-month window were priced at the maximum price stipulated in the defendant publishers' Apple Agency Agreements. This is consistent with the conclusion that the prices set by the defendant publishers conformed to the Apple Agency Agreement price caps and were not the result of other factors.

VII. Consumers were harmed by higher e-book prices following the defendant publishers' move to agency pricing.

145. I have analyzed e-book transaction data at Amazon and at Barnes & Noble both before and after defendant publishers switched to agency at those retailers. My empirical analysis demonstrates that the retail prices for e-books that were set by each defendant publisher following its assumption of price-setting authority were, on average, significantly higher than the retail e-book prices set by the retailers under the wholesale model.¹⁰² This robust finding that each publisher had significantly higher average retail e-book prices immediately after adopting agency at Amazon holds for many subsets of each defendant publisher's e-book sales. It holds for each defendant publisher's sales at each of these two retailers. It holds for each defendant publisher's entire e-book catalog as well as for each defendant publisher's frontlist, New York Times Bestsellers, and backlists separately. Finally, I examined defendants' contention that retail prices of some of defendant publishers' titles increased while others decreased or stayed

¹⁰² Likewise, e-book prices were significantly higher than they would have been but for the Apple Agency Agreements, given that Amazon's low-pricing strategy for e-books was sustainably profitable in the long run on a wholesale model, and given that Amazon's switch to agency was a result of the defendant publishers' simultaneous demands following their adoption of Apple Agency Agreements. [REDACTED]

the same. Analyzing the e-book transaction data from Amazon, I found that the retail prices of the vast majority of e-book sales increased substantially between the pre-agency and post-agency periods.

VII.A. The average prices of defendant publishers' e-books increased significantly following their move to agency pricing.

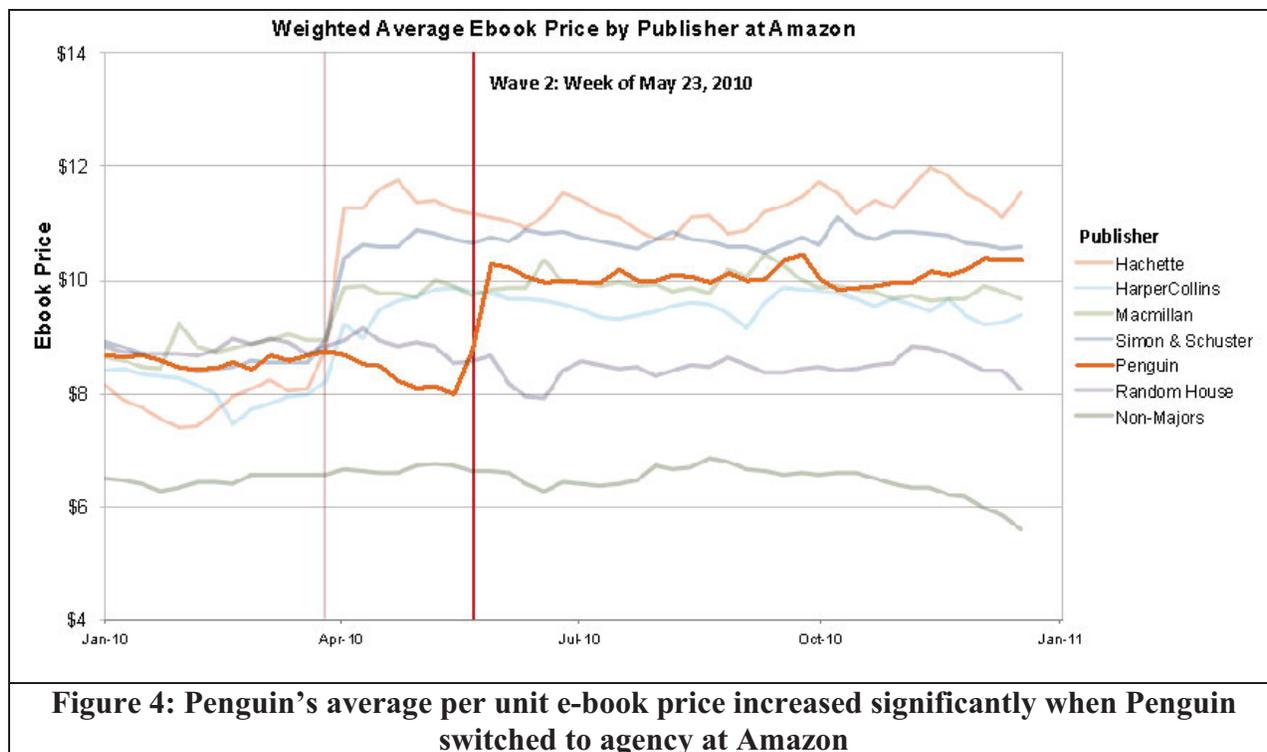
146. Figure 3 shows that retail e-book prices increased significantly when defendant publishers assumed price-setting authority. It shows the average per unit price over time for each publisher's entire e-book catalog at Amazon. The average per unit e-book prices for defendant publishers Hachette, HarperCollins, Macmillan, and Simon & Schuster increased significantly in the first week of April, which corresponds to their transition to agency at Amazon.¹⁰³ In distinct contrast, the average per unit prices for Penguin, Random House, and the non major publishers which did not switch to agency at Amazon at this time do not show an increase.

¹⁰³ The red vertical line at April 3, 2010 marks the approximate time at which Hachette, HarperCollins, Macmillan, and Simon & Schuster switched to agency at Amazon. As explained above, Penguin did not switch to agency with Amazon until late May 2010.



147. Figure 4 shows that Penguin’s weighted average e-book price increased significantly around May 28, 2010, corresponding to its transition to agency at Amazon.¹⁰⁴ Again, neither Random House’s nor the non-major publishers’ average per unit prices increase at this time.

¹⁰⁴ The red vertical line at May 28, 2010, marks the approximate time at which Penguin switched to agency at Amazon.



148. In summary, Figure 3 and Figure 4 show that a defendant publisher’s weighted average e-book price increased significantly when that publisher switched to agency at Amazon. Publishers that did not move to agency at Amazon at the same time do not show a significant increase in their weighted average e-book price at that time.

149. When I analyzed price data for different subsets of e-books at both Amazon and Barnes & Noble, I found that defendant publishers increased prices for new-release, New York Times bestselling, and backlist e-books. Table 5 displays my calculations of the effect of defendant publishers’ switches to agency on average prices at Amazon and at Barnes & Noble for (a) all e-book titles, (b) the frontlist (i.e., new-release titles), (c) New York Times Bestseller titles, and (d) the backlists.¹⁰⁵ (The Apple Agency Agreement price caps apply to the frontlist

¹⁰⁵ To calculate the (weighted) average price of a title for a week I divided the revenue from sales of that title in that week by the number of paid units of that title sold that week. This weighted average price (revenue per unit) better reflects (compared to a simple average price) impacts on consumers. The impact on consumers of a given change in a given price is larger the greater the number of units of that title that were distributed to

and bestselling titles.)

Table 5: Summary of e-book price increases at Amazon and Barnes & Noble by defendant publishers from shortly before to shortly after agency¹⁰⁶

Amazon Average Per Unit Price Increases

Publisher	All e-books	New Releases	NYT Bestsellers	Backlist
Hachette	33.0%	14.1%	37.9%	37.5%
HarperCollins	13.6%	12.5%	44.0%	15.2%
Macmillan	11.6%	14.0%	-	11.2%
Penguin	18.3%	19.5%	43.6%	17.6%
Simon & Schuster	18.0%	15.1%	28.7%	19.8%
Defendant Publishers	18.6%	14.2%	42.7%	19.6%
Random House	0.01%	1.9%	0.2%	0.3%
Non-Majors	-0.2%	-0.9%	1.1%	-0.1%

Barnes & Noble Average Per Unit Price Increases

Publisher	All e-books	New Releases	NYT Bestsellers	Backlist
Hachette	36.0%	16.5%	38.2%	34.4%
HarperCollins	23.6%	42.5%	43.4%	18.2%
Macmillan	11.3%	7.2%	-	13.6%
Penguin	14.4%	9.7%	9.3%	15.4%
Simon & Schuster	20.0%	17.1%	30.0%	22.4%
Defendant Publishers	19.9%	19.0%	15.8%	19.5%
Random House	-0.2%	0.5%	0.0%	1.2%
Non-Majors	2.3%	-3.1%	1.1%	3.7%

150. These results show that the average per unit retail prices at Amazon and Barnes & Noble of the titles of each defendant publisher increased significantly between the defendant publisher's pre-switch week and post-switch week.

151. The increase in average prices for e-books that I found in my analysis of retail transaction data also is reflected in market participants' contemporaneous documents. Both

consumers.) I then calculated the percentage change in prices for each title between these two weeks and computed a weighted average percentage change in price across all titles sold in both weeks using their units in the post-agency week as weight.

¹⁰⁶ The weeks ending March 20, 2010, and April 17, 2010, are used to compute price changes, with the exception of Penguin at Amazon, for which the weeks ending May 15, 2010, and June 12, 2010. Free units are excluded.

Amazon and Barnes & Noble analyzed the effect that the adoption of the agency model had on average e-book prices, and both concluded that average retail prices increased after agency was adopted.¹⁰⁷

152. To evaluate the long-run effect of the switch to agency on e-book retail prices, I examined whether the defendant publishers' e-book prices remained elevated for an extended period relative to their pre-agency levels. To do this, I calculated average per unit e-book prices for the month of February 2011 (roughly ten months after agency began at Apple) and average per unit e-book prices for the month of February 2010 (which is prior to the defendant publishers' switches to agency). I then computed the percentage change in the average price per unit. I calculated these numbers for each defendant publisher, for Random House, and for the combined group of non-major publishers, using first Amazon transaction data and then Barnes & Noble data. I did these calculations separately using all titles the publisher sold each February, for its new releases, its bestsellers, and its backlist. Table 6 displays the results.

153. These results show that defendant publishers set durably high retail prices after agency: on average, the retail prices set by defendant publishers at Amazon in February 2011 (roughly ten months after agency) were 23.9% higher than the pre-agency prices. In contrast, between the same two periods, retail prices of Random House titles fell by 17.1%. Similar observations hold with respect to e-book sales at Barnes & Noble.

¹⁰⁷ See, e.g., PX-0548 at 16 (BN00093265) (undated presentation titled "eBooks and Clients, Past, Present, and 5 years out"); PX-0549 at 1-3 (AMZN-TXCID-0007075-077) (Apr. 22, 2010 email from Suresh Dhandapani to others at Amazon, titled "Daily US Agency eBook Sales Report").

Table 6: Summary of e-book price increases at Amazon and Barnes & Noble by defendant publishers from February 2010 to February 2011

Amazon Average Per Unit Price Increases

Publisher	All e-books	New Releases	NYT Bestsellers	Backlist
Hachette	48.4%	36.8%	60.4%	53.4%
HarperCollins	19.3%	18.5%	22.3%	28.8%
Macmillan	8.8%	13.7%	30.8%	10.4%
Penguin	21.5%	24.7%	36.2%	24.0%
Simon & Schuster	21.2%	18.2%	26.1%	23.2%
Defendant Publishers	23.9%	24.2%	40.4%	27.5%
Random House	-17.1%	-5.0%	4.8%	-19.2%
Non-Majors	-20.0%	-7.6%	-0.6%	-22.4%

Barnes & Noble Average Per Unit Price Increases

Publisher	All e-books	New Releases	NYT Bestsellers	Backlist
Hachette	49.2%	40.5%	78.0%	44.9%
HarperCollins	10.4%	11.6%	12.9%	5.5%
Macmillan	-4.0%	-8.3%	15.3%	1.1%
Penguin	18.5%	18.2%	38.6%	18.7%
Simon & Schuster	19.7%	20.1%	26.9%	22.8%
Defendant Publishers	19.3%	18.1%	48.6%	19.2%
Random House	-17.7%	-11.9%	2.9%	-16.3%
Non-Majors	-30.5%	-3.2%	7.0%	-37.1%

VII.B. Publisher defendants’ price distributions pre- and post-agency show a shift to higher prices.

154. I also conducted an analysis that demonstrates the increases in retail prices by showing the shift in sales at different price point buckets for each defendant publisher. To do this, I selected a pair of weeks for each defendant publisher that straddles the publisher’s switch to agency at Amazon.¹⁰⁸ I calculate the average price for each title that a defendant publisher sold in both the week before the publisher switched to agency and the week after switching to

¹⁰⁸ For Hachette, HarperCollins, Macmillan, and Simon & Schuster, I picked the pre-switch week to be the week ending March 20, 2010, and the post-switch week to be the week ending April 17, 2010. For Penguin, I picked the pre-switch week to be the week ending May 15, 2010, and the post-switch week to be the week ending June 12, 2010.

agency.¹⁰⁹

155. Figure 5 contrasts the retail price distribution of defendant publishers' unit sales prior to agency with the distribution of retail prices after agency, across sales of all defendant publishers. The top half of Figure 5 is a histogram that displays such a distribution of prices for defendant publishers in the pre-agency week ending March 20, 2010. Each column corresponds to a \$1 price range.¹¹⁰ The height of each column corresponds to the percentage of e-book units that were sold that week at an (average) price within the given price range.¹¹¹ Note that most of the "weight" of the distribution for that pre-agency week is to the left of the \$9-\$10 range and few sales are made at price points \$11-\$12 and higher.

¹⁰⁹ In order to calculate the change in the price of a title between the two weeks, I necessarily restricted attention only to titles that were sold in both weeks (in order that its average price be defined in both weeks).

¹¹⁰ *E.g.*, the highest column corresponds to prices in the range \$9-\$10.

¹¹¹ *E.g.*, the height of the column corresponding to the price range \$7-\$8 is equal to 16%, meaning that 16% of the e-book units sold in that pre-agency week were sold at a price between \$7 and \$8.

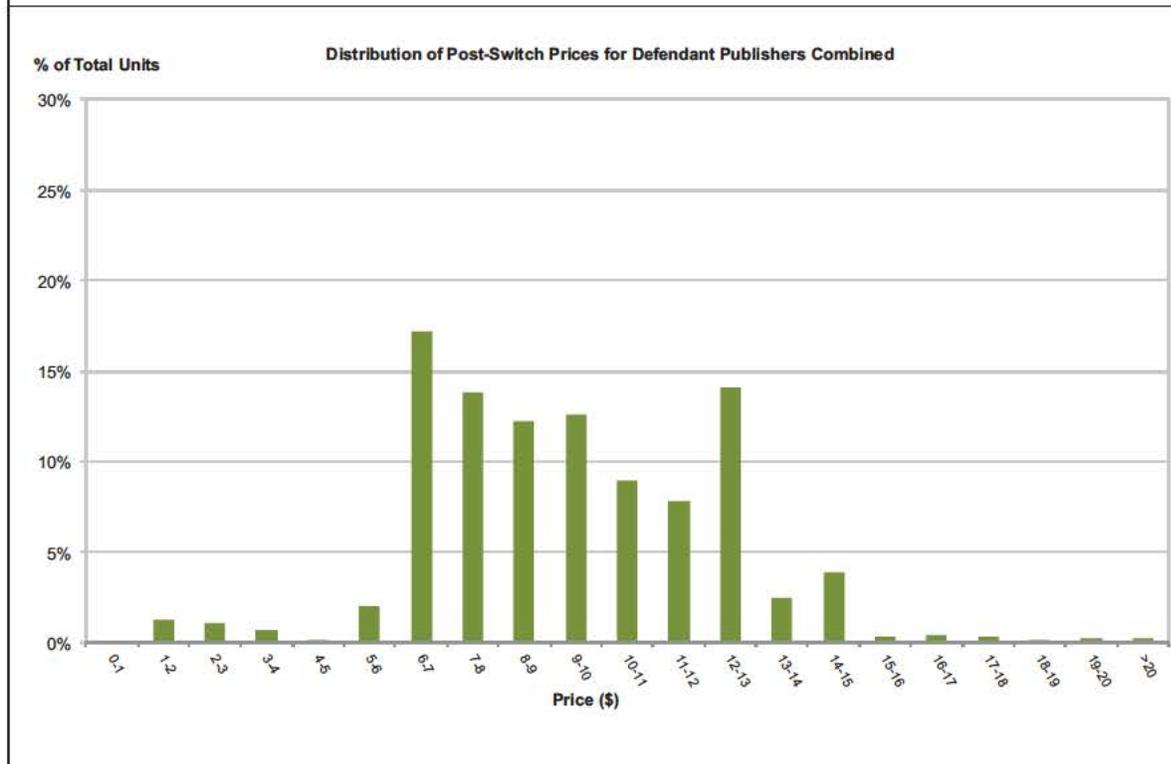
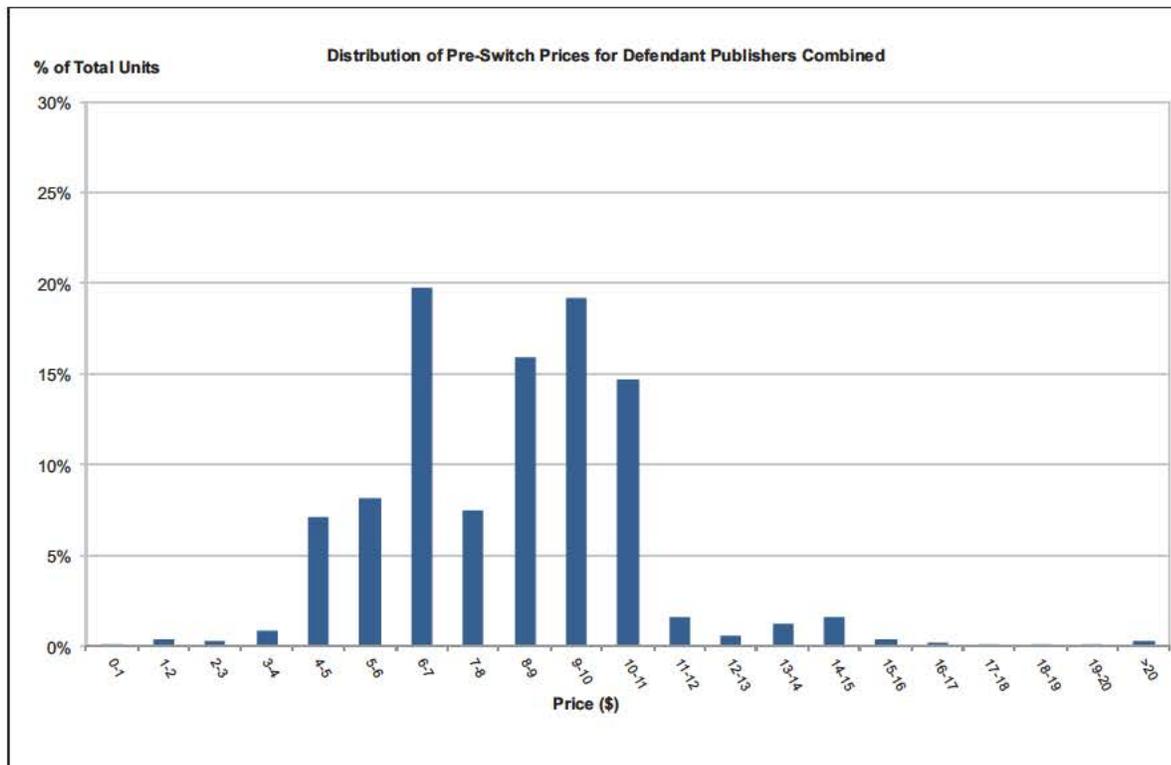


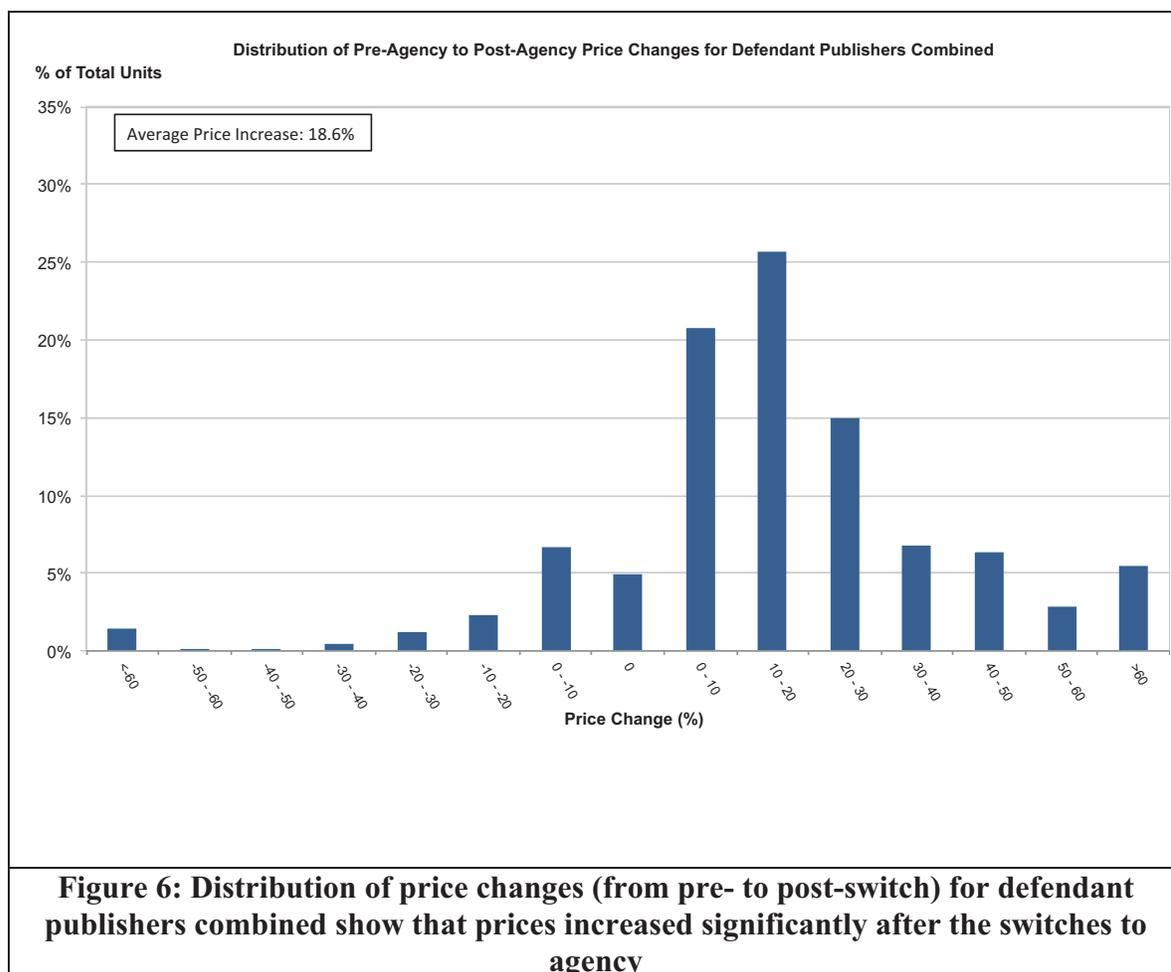
Figure 5: Distributions of pre- and post-switch prices for defendant publishers combined show the movement to higher prices after switches to agency

156. The bottom half of Figure 5 is the same type of retail price distribution but was calculated from sales of the same titles in the week *following* defendant publishers' move to agency at Amazon. By comparing this figure with the top half of Figure 5, it is clear that a greater proportion of sales occurred at higher price points following the switch to agency. In particular, the proportion of the sales in the \$9.00 to \$9.99 range has declined and the proportion of sales in the ranges between \$11.00 and \$12.99 has increased. In general, the proportion of e-books at lower prices (for example, \$4 and \$5) has declined and the proportion of sales at higher prices (for example, \$11 and \$12) has increased. This shift in the distribution from left to right corresponding to the move in time from pre-agency to post-agency indicates that, overall, a greater proportion of sales occurred at higher prices after agency. Of course, this is consistent with my earlier finding showing an increase in the average price of e-books, but shows additionally that the proportion of sales at low prices fell substantially following the switch to agency. This latter finding is borne out by defendant publishers' own internal predictions.¹¹² Additional histograms of the price distribution of each defendant publisher were provided with my initial report, which is attached here as Appendix C.

157. Finally, I examined the distribution of retail price changes between the pre-agency and post-agency periods. Figure 6 compares the two halves of Figure 5 (i.e., corresponding to the pre-agency and the post-switch weeks, respectively). In Figure 6, the height of each column measures the fraction of units purchased (in the post-switch week) of titles that experienced a price change in each range. For example, 25.7% of the units purchased in the post-switch week were of titles that were now priced 10-20% higher, post-agency, at Amazon. Similarly, 15% of units sold by the defendant publishers were sold at prices that had increased between 20%-30%.

¹¹² See, e.g., PX-0521 at 2 (HBG00013353) (Jan. 19, 2010, email from Maja Thomas to David Young, noting that given Apple's pricing tiers, "the majority of our frontlist books would be priced at 11.99, 12.99 or 14.99.").

158. Defendant publishers and Apple contend that while retail prices of some of defendant publishers' e-books increased following the switch to agency pricing, others decreased or remained the same. While there were some sales of titles for which defendant publishers set lower prices post-agency, Figure 6 shows that these amounted to no more than 12.2% of unit sales; 4.9% of sales were of titles whose price did not change post-agency. The vast majority of post-agency sales (more than 80%) were of titles for which the price increased after agency the weighted average price increase on defendant publishers' titles was 18.6%. Additional histograms of the price distribution of each defendant publisher are attached to my February 8, 2013 report in Appendix C.



VII.B.1. Dr. Burtis’s empirical findings also show that average retail prices of defendant publishers’ e-books increased following the switch to agency and remained high.

159. Consistent with my findings, defendants’ expert Dr. Burtis found that “average prices for Publisher Defendants’ eBooks increased in varying amounts in the period after the [initial implementation of the]¹¹³ Apple agency agreements.”^{114, 115} Graph 1 in Dr. Burtis’s initial report showed that the elevations in average prices of defendant publishers’ e-books were

¹¹³ It is clear from the context of Dr. Burtis’s statements that she intended the phrase “after the Apple agency agreements” to refer to a period beginning approximately April 1, 2010, as opposed to a period after the Apple Agency Agreements are no longer in effect. *See, e.g.*, the vertical dashed line in Dr. Burtis’s Graph 1.

¹¹⁴ Burtis Report ¶ 25.

¹¹⁵ Dr. Burtis calculated the average prices over transactions at Sony, Amazon, Barnes & Noble, Apple, Google, Books-A-Million, and Kobo. Burtis Report, Graph 1.

durable over the period February 2010 February 2011, which is consistent with my findings that the price elevations were long-lived.

160. Dr. Burtis further noted that the increases in the prices of defendant publishers' titles were sufficient to result in an increase in the average e-book prices of the titles of *all publishers* (i.e., even when the average includes titles of those publishers that did not participate in the Apple Agency Agreements) over the seven-month period between April and October 2010.¹¹⁶ As I explain below, including the sales of all publishers, rather than just the defendant publishers, obscures the elevation in prices brought on by the Apple Agency Agreements. Nonetheless, Dr. Burtis's analysis showed harm to consumers from the Apple Agency Agreements even though she included all publishers.

VII.C. Dr. Burtis's calculations about the percentages of titles that experienced increases, or decreases, in price understate the increases in prices to e-book customers.

161. In her initial report, Dr. Burtis analyzed the price changes for defendant publishers' "hardcover new release" titles and New York Times Bestsellers,¹¹⁷ and observed that "many such titles either dropped in price or remained unchanged after implementation of the agency agreements."¹¹⁸ Dr. Burtis understated the true impact of the overall price increase to consumers by presenting her results only in terms of the percentage of titles that experienced increased, decreased, or constant prices.¹¹⁹

162. Her presentation understated the true impact of the price increases on consumers because it fails to account for the fact that more popular titles, on average, experienced larger

¹¹⁶ Burtis Report ¶ 26.

¹¹⁷ Dr. Burtis said that plaintiffs' claims regarding the price caps in the Apple Agency Agreements are contradicted by the fact that Amazon agreements with the defendant publishers sometimes have higher caps. Burtis Report ¶ 48. I note that the caps in Amazon's contracts are not relevant for two reasons. First, but for the alleged conspiracy, Amazon likely would not have price caps. Second, because of the agency-price MFN in Amazon's contract, the lower set of price caps, viz., Apple's price caps, are relevant for the empirical analysis.

¹¹⁸ Burtis Report ¶ 39.

¹¹⁹ Burtis Report ¶ 39, Table 3, Exhibit 5.

price increases. In Section VII.A, I calculate the *weighted* average price changes, where the price change for a more popular title is given greater weight, because the weighted average price better reflects impacts on consumers.

163. Table 7 presents the results of calculations that I performed to illustrate these concerns about Dr. Burtis’s methodology, exhibited in Table 3 of her initial report. My calculations differ from Dr. Burtis’s in two ways. First, I consider all new-release e-books, not just hardcover new releases.¹²⁰ Second, I perform a weighted calculation, in order to weight the price change of each title by how commercially significant it was. I express the results of my calculations as the percentage of total unit sales (not total titles) that were of titles whose price increased, decreased, or remained constant.¹²¹

Publisher	Number of e-book units	Up	Down	Unchanged
Hachette	15,553	75%	16%	9%
HarperCollins	28,828	83%	13%	3%
Macmillan	11,880	64%	31%	5%
Penguin	15,557	79%	20%	1%
Simon & Schuster	7,803	77%	21%	2%
Defendant Publishers	79,621	77%	19%	4%

Table 7: Percentage of unit sales of new-release and bestselling titles that experienced increased, decreased, or unchanged price, respectively

164. At least 64% of the unit sales of each defendant publisher’s new-release and bestselling e-book titles were for titles that had experienced a price increase as a result of the adoption of the Apple Agency Agreements. For the defendant publishers overall, 77% of the unit sales of new-release and bestselling e-books were for titles that had experienced a price

¹²⁰ Like Dr. Burtis, I included New York Times Bestsellers, even if they are not new releases.

¹²¹ For this analysis, I used the weeks ending March 20th and April 17th for Hachette, HarperCollins, Macmillan, and Simon & Schuster. For Penguin, I used weeks ending May 15th and June 12th. I define new-release titles as digital versions of books in their first 7 months of publication.

increase. These results are consistent with price-change histograms I presented in my February 8, 2013 report (attached in Appendix C) for each defendant publisher, which show that defendant publishers increased prices on a significant proportion of their unit sales following their adoption of the Apple Agency Agreements.¹²²

165. To illustrate the importance of weighting the price increases by unit sales, Table 8 presents corresponding unweighted results, analogous to those in Dr. Burtis’s Table 1. These unweighted results understate the effect of price increases on consumers of defendant publishers’ new-release titles. For example, the percentage of defendant publishers’ new-release and bestselling titles that experienced a price increase is 65% (Table 8), whereas the price of bestselling titles increased on 77% of units sold (Table 7).

Publisher	Number of e-book titles	Up	Down	Unchanged
Hachette	213	52%	20%	29%
HarperCollins	1,096	72%	16%	12%
Macmillan	255	42%	38%	21%
Penguin	475	71%	23%	5%
Simon & Schuster	373	56%	33%	11%
Defendant Publishers	2,412	65%	23%	13%

Table 8: Percentage of new-release and bestselling titles that experienced increased, decreased, or unchanged price, respectively

VII.C.1. Dr. Burtis and Professor Rubinfeld understate the retail price increases on some trade titles and thus understate the increase in retail trade e-book prices.

166. In their initial reports, both Dr. Burtis and Professor Rubinfeld purported to show that defendant publishers’ e-book prices decreased. To achieve this result, Dr. Burtis restricted

¹²² See Appendix C. See also Figures 5 and 6, *supra*.

the set of titles she studied [REDACTED] ¹²³

Both justified their approach by essentially arguing that Amazon’s pre-agency prices on some e-book titles were “too low” to be considered in their analysis of prices. The defendant publishers’ insistence on agency pricing is consistent with their expectations that Amazon’s allegedly below-cost pricing would persist absent a move to agency pricing and was not a transient phenomenon. Absent clear reasons to contradict these expectations, the prices that prevailed shortly before the adoption of the Apple Agency Agreements are the appropriate baselines to measure the impact on consumers from the adoption of these agreements. [REDACTED]

[REDACTED]

[REDACTED]

167. Instead of adjusting the price data, Dr. Burtis simply excluded data and limited her analysis to titles that Amazon sold at or above its reported wholesale cost. Thus, her calculations intentionally excluded the changes in price on all titles that Amazon priced below its reported wholesale cost.¹²⁴ There is no reasonable basis to exclude titles that were sold below Amazon’s reported wholesale cost from calculations of the changes in average e-book price as a

¹²³ Burtis Report ¶¶ 40–41, Table 4, Exhibit 6 [REDACTED]

¹²⁴ Burtis Report ¶¶ 40–41, Table 4, and Exhibit 6.

result of the Apple Agency Agreements. Exclusion of such titles from pre-agency sales understates the actual harm to consumers from the defendant publishers' price increases.

168. With respect to both Professor Rubinfeld's and Dr. Burtis's analyses, I note that the retail prices charged prior to agency—whether below Amazon's reported wholesale cost or not—were the prices consumers paid. The harm to consumers from higher prices post-switch is appropriately measured with respect to the retail prices those consumers actually paid.

VII.C.2. Dr. Burtis's choices to use long-duration analysis windows and combine non-defendant publishers' e-books with defendant publishers' e-books led her to understate the increase in defendant publishers' e-books prices caused by the Apple Agency Agreements.

169. Despite finding that e-book prices increased following the initial implementation of the Apple Agency Agreements, Dr. Burtis asserted in her initial report that “[e]mpirical evidence demonstrates that post-agency conditions are inconsistent with allegations that the agency agreements had an anticompetitive effect in the alleged trade eBook market (after April 1, 2010).”¹²⁵

170. In support of this claim, Dr. Burtis pointed to her finding that the average retail price of all publishers' e-books in early 2012 (nearly two years after the switch to agency) was lower than the average retail price of all publishers' e-books “when Apple opened the iBookstore in April 2010,”¹²⁶ (presumably, Dr. Burtis meant just prior to the switch to agency). Dr. Burtis also relied on a comparison of the average price of all e-books over a pre-agency period February 2008–March 2010 with the average price over a post-switch period April 2010–March 2012.¹²⁷

171. Dr. Burtis's claim—that these observations about the average price of all e-books are inconsistent with allegations that the Apple Agency Agreements had an anticompetitive

¹²⁵ Burtis Report ¶ 23.

¹²⁶ Burtis Report ¶ 23.

¹²⁷ Burtis Report ¶ 26.

effect embodies two distinct errors.

172. First, Dr. Burtis used the average price of *all publishers'* e-books to measure harm to consumers who paid higher prices on defendant publishers' e-books, regardless of whether publishers of those e-books adopted agency pricing at Amazon or other e-book retailers.

173. It is appropriate to look at the prices of only the defendant publishers' titles because there is a clearly identified hypothesis that the adoption of the Apple Agency Agreements led to higher prices for defendant publishers' titles. In fact, Dr. Burtis agreed that the agency agreements caused the price increases.¹²⁸ Furthermore, there is no reason to expect that other publishers' prices should fall as a consequence of the adoption of the Apple Agency Agreements by the defendant publishers. Thus it is sufficient to show that defendant publishers' titles increased in price in order to show consumer harm. My analysis, however, also shows that the average price of all trade e-books rose significantly after the adoption of the agency agreements. At the time of their adoption, the defendant publishers accounted for approximately 50% of the trade e-book market. Table 5 shows that their average price rose more than 18% while Random House and independent publishers were little changed. [REDACTED]

[REDACTED] Because, as discussed below, Dr. Burtis used a long window and failed to control for any other factors affecting pricing of e-books, incorporating the prices of non-defendant publishers only has the effect of biasing her results.

174. Second, Dr. Burtis used very long time periods before and after the implementation of the Apple Agency Agreements to evaluate its effect. Each window is approximately two years in duration, it is inappropriate to use such long time periods to determine the effect of the initial implementation of the Apple Agency Agreements, an event that

¹²⁸ Michelle Burtis Dep. (Apr. 5, 2013), 76:2–21.

occurred over a very short period of time in a rapidly changing industry.

175. Dr. Burtis offered no rationale for her choice of such long time periods, other than it happened to be all the data she received. The longer the time periods are, the more likely it is that factors other than the switch-to-agency event will affect the pre-agency and post-switch average e-book prices. Such factors include the introduction of new e-reader devices, the changing mix in the publishers of e-books, the upward trend in growth as more consumers adopt e-reading, and the changing mix in the titles that are offered in digital formats as publishers continue converting their backlists to digital. For example, in her deposition, Dr. Burtis admitted that she included the “tremendous” growth in Amazon’s self-published sales in her analyses of output and average prices even though the changes to Amazon’s self-publisher agreements, which she believes led to that growth, predated the adoption of the Apple Agency Agreements.¹²⁹ Including Amazon’s self-published sales thus biased Dr. Burtis’s analyses toward finding more output and lower prices than would have been obtained had she omitted or otherwise controlled for these effects.

176. Failure to adequately control for such confounding factors is of particular concern when studying e-reading, a relatively new activity affected by rapid technological change. Dr. Burtis did not attempt to identify or control for alternate causes of the output and price effects she found; instead, she erroneously ascribed the entirety of the effect to the Apple Agency Agreements. In light of these confounding factors, the pre-agency and post-switch time periods should be kept short in duration, to focus the analysis on the particular event of interest.

177. To avoid the likely confounding effects of other factors, I chose time windows that are much shorter than the multi-year periods used by Dr. Burtis. For example, I chose

¹²⁹ Michelle Burtis Dep. (Apr. 5, 2013), 185:24–213:2.

windows between one week and one month in length for my analyses reported in Sections IV.C.2, VII, and VII.A. Similar concerns motivated my use of a control group in the latter analysis to ensure that any trend in print book sales does not obscure any substitution to print books.

178. These two errors by Dr. Burtis acted to dilute and therefore understate the degree to which consumers were harmed by paying higher prices for defendant publishers' titles. Dr. Burtis acknowledged that defendant publishers' share of e-book sales had begun to decline even before the switch to agency and continued to decline after the switch to agency.¹³⁰ As a result, the prices of defendant publishers' e-books had a declining influence on Dr. Burtis's average price calculation, which averages e-book prices over all publishers' e-book sales. Because the average retail price of e-books published by defendant publishers was significantly higher than that of non-major publishers, Dr. Burtis's methodology artificially diluted the true price increase following defendant publishers' adoption of agency.¹³¹ The longer the period following the switch to agency over which Dr. Burtis averaged, the greater the dilution of the effect of defendant publishers' prices because the share of sales accounted for by defendant publishers' titles continued to decrease.¹³²

179. Similarly, because Dr. Burtis chose to calculate the average pre-agency price over more than two years prior to agency (February 2008 March 2010), her analysis was biased and understated the increase of prices for defendant publishers' e-books. Inspection of Dr. Burtis's Graph 1 shows that the average price over all publishers' e-books fell from the earlier part of that pre-agency period to late fall 2009, up until the switches to agency. Dr. Burtis's inclusion of the

¹³⁰ Burtis Report ¶ 29 and Graph 4.

¹³¹ See Figure 3, *supra* (demonstrating this result for the calendar year 2010).

¹³² See Burtis Report, at Graph 4.

full over-two-year period prior to those switches had the effect of increasing the average e-book price for the pre-agency period and, thus, understating the subsequent elevation when defendant publishers switched to agency in April 2010.

180. The distortions caused by Dr. Burtis’s choices of such long periods over which to calculate the pre-agency and post-switch average e-book prices are examples of a general principle that before-and-after comparison periods should be shorter than the windows chosen in her analysis, unless there are controls for confounding factors over the longer time horizon. In the event-study literature, event windows of one year or more are generally considered to be “long-horizon” studies.¹³³ The authors of a review of this event-study literature assessed the “reliability or lack of reliability of long-horizon methods”:

While long-horizon methods have improved, serious limitations of long-horizon methods have been brought to light and still remain. We now know that inferences from long-horizon tests “require extreme caution” and even using the best methods “the analysis of long-run abnormal returns is treacherous.” These developments underscore and dramatically strengthen earlier warnings about the reliability or lack of reliability of long-horizon methods. This contrasts with short-horizon methods, which are relatively straightforward and trouble-free. As a result, we can have more confidence and put more weight on the results of short-horizon tests than long-horizon tests.¹³⁴

VIII. The relevant market.

181. In this Section, I present my analyses and conclusions on the relevant market. This is done in the context of the ultimate question of whether defendants’ actions have harmed competition through the coordinated exercise of market power. The allegation in this case is that defendant publishers, facilitated by Apple, have combined to amass sufficient market power to increase retail prices on e-books and thereby harm consumers.

¹³³ S.P. Kothari & Jerold B. Warner, *Econometrics of Event Studies*, in HANDBOOK OF CORPORATE FINANCE: EMPIRICAL CORPORATE FINANCE, Vol. 1, at 6 (B. Espen Eckbo, ed., 2007) (hereinafter “Event Studies”).

¹³⁴ Event Studies, at 8 (citations omitted).

182. As I have detailed, in particular in Sections VI and VII above, defendants' conduct challenged in this case has resulted in consumers paying significantly higher prices for e-books sold by the defendant publishers. My conclusion that the challenged conduct of defendants caused harm to consumers is based on this direct evidence, and does not rely on a particular definition of the relevant market in which the harm occurred. Nonetheless, in the following Section, I apply some common approaches to market definition and find that each approach leads to the same conclusion: trade e-books is a relevant product market.¹³⁵

183. The observed direct harm to consumers from defendants' actions can inform the identification of the relevant market in which that harm occurred.¹³⁶ As explained in the 2010 Horizontal Merger Guidelines:

Evidence of competitive effects can inform market definition, just as market definition can be informative regarding competitive effects. For example, evidence that a reduction in the number of significant rivals offering a group of products causes prices for those products to rise significantly can itself establish that those products form a relevant market.¹³⁷

Thus the observed direct harm to consumers of trade e-books, along with other evidence, leads me to conclude that trade e-books are a relevant product market.

VIII.A. The hypothetical monopolist test shows that trade e-books is a relevant market.

184. The purpose of market definition is to determine whether consumers have alternative products to which they can turn in response to an anticompetitive price increase, and whether they would do so in sufficient numbers to defeat the profitability of an exercise of

¹³⁵ I would note that none of the defendants' experts has defined a relevant market, or has offered a quantitative challenge to the work I provided in my reports. Apple has acknowledged that the relevant market is no narrower than trade e-books. PX-0803 at 6 (Apple's Objections and Responses to Class Plaintiffs' First Set of Contention Interrogatories, No. 1 ("[W]e contend that the relevant market is no narrower than the sale of trade e-books.")).

¹³⁶ U.S. Department of Justice & Federal Trade Commission, Horizontal Merger Guidelines § 4 (2010) (hereinafter "2010 Horizontal Merger Guidelines").

¹³⁷ 2010 Horizontal Merger Guidelines § 4.

market power.

185. One common tool for delineating relevant markets is the “hypothetical monopolist test.” This test poses the question of whether a hypothetical monopolist over the products in a candidate relevant market would profitably impose “a small but significant and non-transitory increase in price (‘SSNIP’).” If the answer to this question is “yes,” the candidate market is a relevant antitrust market.¹³⁸ If the answer is “no,” that is evidence that consumers would turn in sufficient numbers to close substitute goods outside the candidate market to render the price increase unprofitable.¹³⁹ This inquiry focuses exclusively on demand substitution factors.

186. Thus whether a candidate market (i.e., a collection of products) is a relevant market depends on how strongly customers respond to an increase in price. To what extent do they put up with the higher prices and continue purchasing the products? Or, conversely, to what extent do they give up on the higher-price products and substitute to products outside the candidate market?

187. In assessing the profitability of a SSNIP, a hypothetical monopolist would weigh (a) the gain in profits from charging the higher prices to customers that continue to purchase at the higher prices against, (b) the loss in profit from lost sales, for example, to close substitute products outside the candidate market. If the profit gain from (a) exceeds the loss from (b), the SSNIP would be profitable for the hypothetical monopolist, and the candidate market is a relevant market. This outcome is more likely the lower the degree of substitution to products outside the candidate market.

188. The Amazon sales data allow me to measure the degree to which e-book

¹³⁸ A candidate market that satisfies this test is not necessarily the smallest such market that would satisfy the test.

¹³⁹ In this case the candidate market would be expanded to encompass the next-best substitute goods and the hypothetical monopolist test would be posed again.

customers curtail purchasing e-books in response to a broad-based significant and non-transitory increase in the prices of trade e-books. From my analysis of these data I conclude that a hypothetical monopolist would profitably impose a SSNIP on trade e-books and, thus, that trade e-books constitute a relevant market. I explain my methodology below.

189. My analysis focuses on the period surrounding early April 2010 when, as I documented in Sections VI and VII, the First Wave Agency Publishers implemented significant and non-transitory increases in the prices of their trade e-books. Between the week ending March 20, 2010, and the week ending April 17, 2010, the average prices of the four First Wave Agency Publishers' titles increased by 21.1% and the units consumers purchased weekly of these publishers' titles collectively dropped by only 7.7%.

190. This shows that the degree to which e-book customers substitute away from e-books in response to increases in e-book prices is relatively low in the sense that these customers cut back on their purchases (on a percentage basis) by less than the percentage increase in prices.¹⁴⁰

191. When, as here, customer substitution in response to price increases is low in this well-defined sense, a seller's revenue necessarily increases as its prices increase.¹⁴¹ Further, at higher prices the retailer is also selling fewer units (because the prices are higher) and thus the

¹⁴⁰ To control for non-price effects on demand between the two periods, I calculated the percentage change in the combined unit volumes of titles from Random House and the non-major publishers across the same two weeks. This control group's unit volume increased 6.2% over this time, which becomes a conservative upper bound on the degree to which the First Wave Agency Publishers' demand would have been expected to have grown but for their price increases. (This is a conservative upper bound because, as I showed in Section IV.C.2, Random House and the non-major publishers benefited significantly from substitution in response to the price increases by the First Wave Agency Publishers. Thus much or all of the 6.2% increase in the control group's unit volume could be due to price-driven substitution rather than an underlying trend in the growth of demand.) Even if I assume that the First Wave Agency Publishers would have gained 6.2% absent the price increase, their price-driven loss of units would be 13.9% (= 7.7% + 6.2%), which is still less than the 21.1% price increase. Thus, even after this very conservative adjustment, I would conclude that substitution is still sufficiently low to make that price increase result in increased revenue and therefore that the SSNIP is profitable.

¹⁴¹ Indeed, the retail revenue from sales of the four First Wave Agency Publishers' titles increased by 11.7% between these two weeks.

costs of providing those units are no higher. The combination of higher revenue and reduced costs implies that the seller finds these price increases profitable.

192. A hypothetical monopolist of e-books would find that e-book customers would in response to an increase in the prices of all trade e-books substitute away from e-books to an even smaller degree than I observed in the Amazon data when the First Wave Agency Publishers increased their prices. These customers had the option to avoid the increased prices on these four publishers' titles by substituting to e-book titles of other publishers that did not increase prices. I presented in Section IV.C.2 above, my analysis that found that significant substitution to titles published by Random House and other publishers did in fact occur at this time. Such substitution to other e-book titles would not occur in the case of a hypothetical monopolist over all e-book titles raising prices. This even-lower substitution when the SSNIP is imposed by a hypothetical monopolist strengthens the profitability of the SSNIP.

193. I find that a hypothetical monopolist of trade e-books would profitably impose a SSNIP on trade e-books because there would be too little substitution by customers away from trade e-books to render these price increases unprofitable.¹⁴² Thus I find that trade e-books are a relevant market.

VIII.B. In particular, the relevant product market need not be broadened to include print books.

194. The exercise of market definition considers whether the candidate market should be expanded to include close substitutes. Using the response of trade e-book sales to price

¹⁴² I note that defendant publishers did not find these price increases profitable in a short-term sense and with respect to e-book profits alone as a consequence of the switch to the agency model because the defendant publishers accepted a lower revenue share in return for adoption of the agency model, specifically the 30% commission granted by the publishers under the agency model. This does not contradict my conclusion that a hypothetical monopolist that is the only seller of trade e-books could have profitably imposed a small but significant and non-transitory increase in price, as demonstrated by the increase in total revenues from trade e-books following the move to agency pricing.

increases, I conclude that a hypothetical monopolist that is the only supplier of trade e-books would profitably impose a small but significant and non-transitory increase in price. While that is sufficient to determine that trade e-books are a relevant product market, in this Section I consider other evidence relating to whether print books are close substitutes for e-books.

VIII.B.1. Differentiators between e-books and print books.

195. An e-book of a title has the same information content as the print book of the same title. Beyond this similarity, however, there are many differences between the two formats that are relevant to consumers.

196. An e-book (i.e., a digital copy of a title) cannot be read directly, but must instead be used in conjunction with a device such as an e-reader, a tablet, or a laptop or desktop computer.¹⁴³ This is a significant differentiator between e-books and print books. The prerequisites for a consumer to have an e-book reading device include purchasing or otherwise procuring or having access to the device, having the requisite technical sophistication to choose, acquire, set up, and maintain the device, and providing electric power (or at least periodic recharging) for the device.

197. An e-book reading device can often provide its own illumination for reading in low-light situations, but on many electronic devices reading in direct sunlight is difficult or impossible. A reader can adjust the font size on an e-reader, making reading easier for those with less-than-optimal eyesight. Some e-readers can audibly read text for those who are visually impaired. Print books lack these features, which many consumers of e-books value.

198. An e-reader can facilitate looking up an unfamiliar word in a digital dictionary more quickly and without the inconvenience and carrying around of a physical dictionary, can

¹⁴³ This does not imply, however, that reading devices are in the relevant market with trade e-books, as I discuss in Section VIII.C, *infra*.

allow users to electronically share excerpts and notes, and can allow users to sync their reading position across multiple devices. These are likewise features that print books lack, but which many consumers of e-books value.

199. Print books have a user interface that is more intuitive and easier to learn than the user interface of an e-reader device; print books do not require a user manual. Many people prefer the look and feel of a print book.

200. Although an e-reader has size and weight, an individual digital copy has no size or weight. A very large number of e-books, then, can be loaded onto an e-reader with no incremental weight or size. For a consumer traveling with a large number of e-books, for example, the size and weight of her e-reader can be smaller and lighter than would an aggregation of print books of the same set of titles.

201. The differentiators between e-books and print books that I have described above illustrate why consumers of e-books may strongly prefer the e-book format, and so may be willing to accept a significant price increase without switching to the print book format.

VIII.B.2. An Amazon internal analysis is consistent with no substitution between e-books and print books when e-book prices increase.

202. An Amazon internal study performed in May 2010, one month after the defendant publishers switched to agency, considered e-book titles whose prices had increased to levels higher than the price of the corresponding print book of the same title. Amazon's analysis found that the unit sales of these e-book titles decreased. The analysis also found that the unit sales of the corresponding print book titles "remained stable" and, in particular, "we do not notice any increase in Pbooks Units," despite the higher prices and lower unit sales of the corresponding

e-book.¹⁴⁴ In other words, the higher e-book prices did not induce customers to substitute from e-books to the lower-price print books of the same titles. Amazon’s analysts characterized the results as “[i]ndicating that there is no shift to Pbooks.”¹⁴⁵

203. Similarly, at least one of the defendant publishers observed that with regard to the windowing of new e-book releases, it “found in practice” that windowing did not significantly improve print book sales.¹⁴⁶

204. Windowing corresponds to an extremely large increase in price for that period of time, often referred to as an “infinite price increase.”¹⁴⁷ That industry participants found that such a large price increase on e-books failed to significantly increase print book sales shows that any substitution from e-books to print books is quite low.

VIII.B.3. My analysis of Amazon sales data finds no evidence of substitution to print books following increases in e-book prices set by defendant publishers upon their moves to agency.

205. I confirmed the basic result of the Amazon analysis that increases in e-book prices do not result in substitution to print books described in Section VIII.B.2 by applying simple statistical analyses to Amazon data. As I have documented in Section VI above, the moves to agency at Amazon by Hachette, HarperCollins, Macmillan, and Simon & Schuster (“First Wave Agency Publishers”) around April 3, 2010, resulted in significant increases in the e-book prices of these defendant publishers. This event provides an opportunity to test empirically whether significant increases in e-book prices led to substitution to print books.

¹⁴⁴ PX-0181 at 2 (AMZN-DOJ-000489) (May 21, 2010, Amazon Agency Sales Trend).

¹⁴⁵ PX-0181 at 3 (AMZN-DOJ-000490) (May 21, 2010, Amazon Agency Sales Trend).

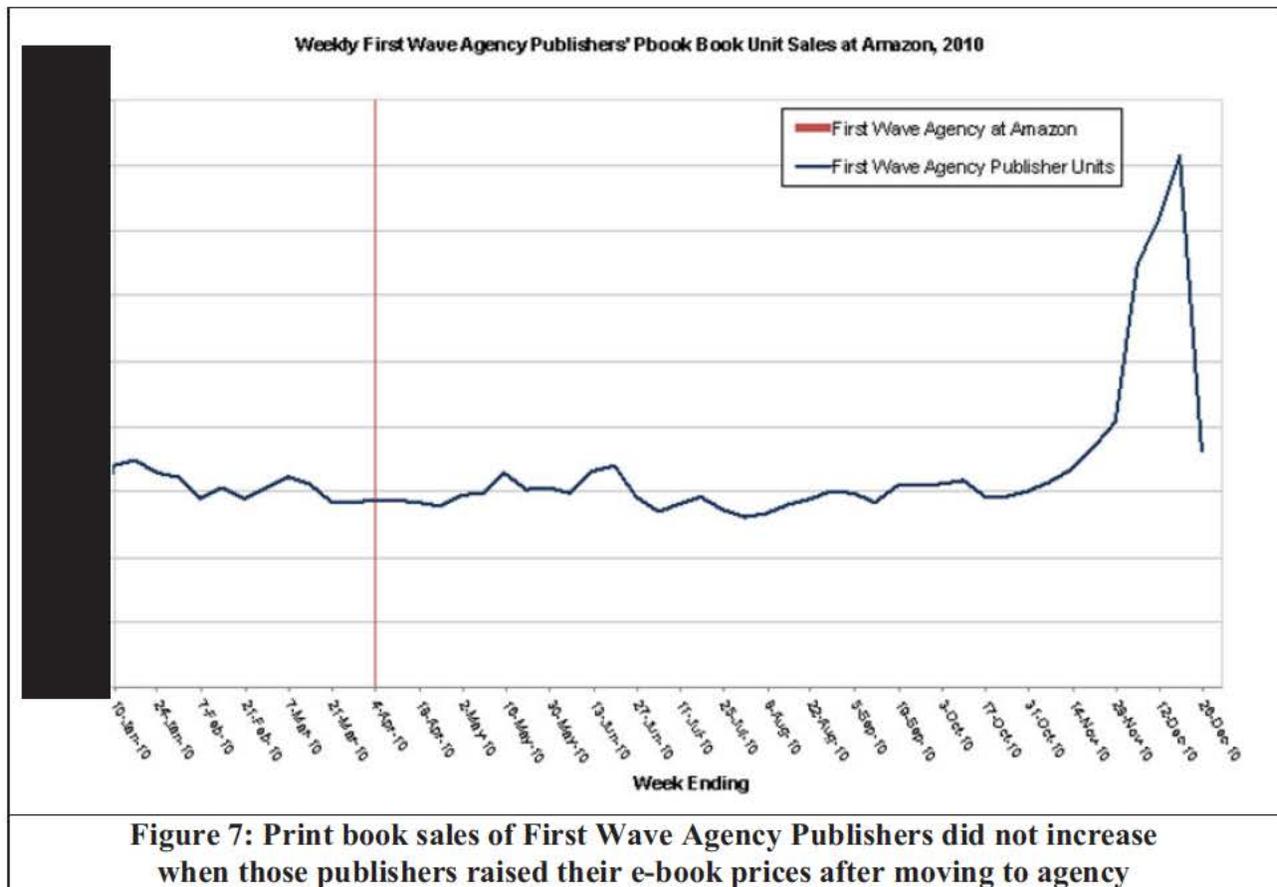
¹⁴⁶ PX-0544 at 1 (PEN775524) (Feb. 8, 2011, email from Susan Kennedy to Coram Williams and David Shanks, “once a reader has switched over to the electronic reader, she or he does not come back for a physical book when the e Book is unavailable. . . . The reader goes on to other books or pursuits when that initial impulse has passed. The sale never comes back.”).

¹⁴⁷ During the period that a product is completely unavailable, consumers purchase zero units of that product. This is equivalent to the situation where the product was available but its price was as high as or higher than the product’s demand curve’s “choke price,” i.e., the price above which zero units would be demanded.

206. If print books were in the same relevant market as e-books, the increases in the prices of the First Wave Agency Publishers' e-books at the beginning of April 2010 should have triggered substitution by a substantial number of customers away from these higher-priced e-books and toward the print book versions of the same titles. If such substitution to print book versions of these publishers' titles had occurred, I would expect to see evidence of this in the sales of these publishers' print books.

207. Figure 7 depicts the weekly unit sales of the First Wave Agency Publishers' print books at Amazon. The vertical red line indicates April 3, 2010, which was approximately the date on which these four publishers moved to agency at Amazon and immediately implemented retail prices for their e-books that were significantly higher than the prices that prevailed before.

208. It is clear from the chart that there is no noticeable increase in these publishers' print book sales corresponding to their implementation of higher e-book prices. Thus, a visual inspection of the print book sales of the First Wave Agency Publishers fails to uncover any evidence for substitution from e-books to print books.



209. I further analyzed the Amazon data to see whether there might be evidence of substitution from e-books to print books that did not rise to the level of visibility with the naked eye. As I describe below, my further analysis of Amazon sales data over this time also failed to find any such substitution to print books resulting from the higher e-book prices.

210. In performing my analysis, I wanted to ensure that any trend in print book sales unrelated to the e-book price increases would not obscure any substitution to print books resulting from the price increases.¹⁴⁸ Adopting a standard methodology, I identified a “control group” of publishers that did not switch to agency at Amazon within the time period I

¹⁴⁸ For example, suppose there were (contrary to fact, as my analysis shows) substitution from e-books to print books but there was also a preexisting downward trend in print book sales. The combination of these two influences on print book volumes (positive from substitution and negative from the trend) could cancel, causing a failure to detect the substitution.

considered; this group is comprised of Random House, Penguin, and the non-major publishers. If, for example, there was an industry-wide trend in print book volume, this trend would show up both in the unit volumes of the First Wave Agency Publishers and in the unit volumes of the control group. I used well-established statistical techniques to identify relative changes in print book sales of the two groups of publishers before and after the First Wave Agency Publishers' move to agency. I determined whether the change in volume of the First Wave Publishers was the same, less than, or greater than the change in volume of the control-group publishers. This technique allowed me to control for trends in print book sales and other factors that might obscure true substitution patterns. The analysis corroborates the simple analysis of Figure 7: there is no discernible substitution from e-books to print books.

211. Specifically, I looked at changes in the sales of the First Wave Agency Publishers' print books between (a) a two-week period before their switches to agency and (b) a two-week period after that event.¹⁴⁹ I restricted attention to print book titles that were sold in both periods. I then estimated the incremental percentage change in unit sales associated with the First Wave Agency Publishers' print book titles between the periods before and after the switch to agency, relative to the corresponding change in unit sales associated with the control-group publishers' print book titles.

212. If e-books and print books were in the same relevant market, I would expect the change in volume of the First Wave Agency Publishers relative to the control group to be positive and statistically significantly different from zero. Instead I found that this change was

¹⁴⁹ I selected the two weeks ending on March 13, 2010 and March 20, 2010 as the pre-agency window, and the two weeks ending on April 17, 2010 and April 24, 2010 as the post-agency window. My results are robust even if I instead chose two one-week, three-week, or four-week windows for my analysis.

not both positive and statistically significant.^{150, 151} This provides no support for the hypothesis that print book unit sales by the First Wave Agency Publishers increased as a result of a corresponding increase in the prices of their e-book version.

213. My analysis thus confirms the qualitative result of the Amazon study discussed in VIII.B.2. Both analyses are consistent with trade e-books being a relevant market; neither supports print books being in the trade e-book relevant market.

214. Professor Murphy argued in his initial report that print books must be in the relevant market because the adoption of the Apple Agency Agreements lowered the profits of the defendant publishers from the sale of e-books and “as a matter of economics, the Publisher Defendants could expect to increase their profits overall, and thereby make up for the lower per-unit profit on some e-books under agency, only by selling more e-books or more physical books (or raising physical book prices).”¹⁵² However, this argument ignores the defendant publishers’ stated reasons for adopting the Apple Agency Agreements. They desired to raise the retail prices of e-books, to avoid the solidification of consumer expectations that prices should be low, diminish Amazon’s ability to demand lower wholesale e-book prices from the defendant publishers in the future, and diminish Amazon’s ability to become a publisher in its own right and thereby compete with defendant publishers. These are long-term concerns that do not require greater sales of print books or higher print book prices as an immediate consequence of the adoption of the Apple Agency Agreements.

215. According to Professor Rubinfeld, “[t]here is little doubt that physical books and

¹⁵⁰ Relative to the control group, the change in the First Wave Agency Publishers’ volume between periods was 5.2% lower (significant at the 1% level) than the change in the control-group publishers’ volume between periods.

¹⁵¹ This finding was unchanged when I alternatively restricted attention to titles such that (a) the e-book price increased at least 5% and (b) the print book price changed no more than 1%.

¹⁵² Murphy Report ¶ 89.

e-books compete. Brick-and-mortar bookstores have focused their attention on the competitive threat of e-books.”¹⁵³ Publishers may be concerned about the threat to brick-and-mortar stores from secular growth in e-books. However, that does not mean that print books are in the relevant antitrust market. There are many firms that sell multiple products and compete in multiple markets. Defendant publishers, like other multi-product firms, are concerned with the profits that flow from each product they sell, including print books as well as e-books, but this does not imply that all products sold by a firm compete in the same market. As I have shown, a SSNIP for e-books is not likely to cause significant substitution to print books, and that is the appropriate question for antitrust product market definition.

VIII.C. The relevant market does not include e-readers.

216. E-readers do not belong in the same relevant product market as e-books.¹⁵⁴ Relevant product markets include products that are substitutes for one another.¹⁵⁵ Product markets sometimes are defined to include complements, but typically that occurs when the products are sold in fixed proportion to each other. Right and left shoes are clearly not substitutes; they are complements. Yet we speak of markets for shoes because shoes are almost invariably sold in pairs.

217. In contrast, e-books and e-readers are not typically sold together as a bundle and in fixed proportions. Some consumers purchase many e-books, while others purchase only a few. Some consumers may already own an e-reader prior to a change in the price of e-books,

¹⁵³ Rubinfeld Report ¶ 135.

¹⁵⁴ In his initial report, Professor Rubinfeld opined that “there are good reasons to include the effects of the move to agency on sales of dedicated e-readers in the evaluation of competitive effects.” Rubinfeld Report ¶ 136. It is not clear that his conclusion is that the relevant market should include e-readers as well as e-books, and he appears to stop short of saying this. At the moment, Rubinfeld does not expect to voice any affirmative opinion at trial about what the relevant market should include. Rubinfeld Dep. (Apr. 12, 2013), 293:10–20.

¹⁵⁵ Apple admitted that “ebooks and ereaders are complementary products, not competitive products.” PX-0805 at 5–6 (Apple’s Objections and Responses to the United States’ Second Set of Requests for Admission, No. 11, Mar. 22, 2013).

and these consumers may have no reason to purchase a different e-reader to replace the one they already have.

218. Moreover, e-books can be accessed from different vendors using a tablet, personal computer, or smartphone. Both Amazon and Barnes & Noble offer free apps that can be used to read e-books from their e-bookstores on the iPad and myriad other devices.

VIII.D. The relevant geographic market is the United States.

219. E-book retailers are aware of and take into account the geographic locations of their customers. An e-book retailer must have the requisite intellectual property rights to distribute an e-book to a customer, and these rights typically specify a geographic region in which the e-book can be distributed.

220. A given consumer in the United States seeking an e-book can only turn to e-book retailers with the right to distribute the e-book title within the United States. Further, an e-book retailer has the ability to set a different price for a customer in the United States than for a customer outside the United States.

221. When, as here, a hypothetical monopolist of the conjectured relevant product market, viz., trade e-books, could discriminate on the basis of customer location, it is appropriate to define the relevant geographic market based on the locations of targeted customers.¹⁵⁶

222. I conclude that the relevant geographic market in this case is the United States. Defendants have not challenged this conclusion.

IX. Defendants have not shown that the procompetitive benefits they claim are attributable to the switches to agency.

223. In various contexts, defendants have claimed that consumers have benefitted from their adoption of the Apple Agency Agreements despite paying higher prices for e-books. These

¹⁵⁶ 2010 Horizontal Merger Guidelines § 4.2.2.

claims are unfounded and speculative. In this Section, I address the four primary claims on which the defendants appear to rely most heavily: (a) that the observed increase in e-book unit sales in the post-agency period is evidence that the adoption of the Apple Agency Agreements had a positive effect on output; (b) that the adoption of agency led to lower prices for e-reader devices and more device innovations; (c) that the transition to agency pricing slowed the erosion of sales by traditional brick-and-mortar bookstores; and (d) that the switch to agency resulted in other benefits to consumers from new entry in e-book retailing.

224. Defendants' experts made few concrete assertions as to the existence or magnitude of any benefit that is attributable to the Apple Agency Agreements. Instead, these experts' discussions of efficiencies mostly consisted of asserting that the period after the adoption of the Apple Agency Agreements is better, in some sense, than before. Critically, however, they did not demonstrate that the claimed improvement is causally related to the adoption of the Apple Agency Agreements by the defendants.

225. This failure to show causality is important because there are secular trends that preceded the Apple Agency Agreements and would have been expected to continue and to lead to greater benefits over time. These include the growing popularity of e-reading and the quality improvements and cost reductions that come with technological progress.

226. It may be true that Apple's launch of the iPad drove competitors like Amazon to enhance their existing e-readers or to develop or improve their own multipurpose tablet devices. However, any effect of the iPad's launch is distinct from the Apple Agency Agreements because it is clear that Apple would have launched the iPad regardless of whether defendant publishers had accepted the Apple Agency Agreements. As Apple 30(b)(6) witness Keith Moerer testified:

At the time of the negotiations I didn't yes, I knew we were launching a hardware device, and that hardware device, the iPad, was going to be

launched with or without a bookstore.¹⁵⁷

IX.A. Defendants have not shown that increases in aggregate e-book sales following the switches to agency are attributable to the switches to agency.

IX.A.1. Unit sales of e-books were increasing before the Apple Agency Agreements and the sales post-agency merely continue this trend.

227. Defendants have argued that their participation in the Apple Agency Agreements is somehow responsible for the fact that the unit volume of U.S. retail e-book sales has continued to increase following those agreements and that this is evidence that consumers were not harmed by defendants' actions. For example, Dr. Burtis noted in her initial report that "[s]ales of eBooks increased dramatically during the post-agency period."¹⁵⁸ Dr. Burtis then asserted that the increased sales of e-books are "inconsistent with allegations that the agency agreements had an anticompetitive effect."¹⁵⁹

228. However, nowhere did Dr. Burtis show or even argue that the increase in sales of e-books is in any way attributable to defendants' adoption of the Apple Agency Agreements. In particular, Dr. Burtis did not isolate any increases in e-reading caused by the launch of the iPad (as opposed to the iBookstore) or the continuation of the pre-existing trend, and instead implicitly attributes those increases to the adoption of the Apple Agency Agreements.

229. Although defendant publishers' e-book unit sales have generally increased over

¹⁵⁷ Apple (Keith Moerer) Dep. (Dec. 13, 2012), 36:21–24.

¹⁵⁸ Burtis Report ¶ 27. Dr. Burtis also points to "[t]he increase in the number of independent publishers and the robust growth in independent publisher sales (both absolutely and relatively)" as somehow contradicting "Plaintiffs' allegations that retail competition ceased following the implementation of agency." Burtis Report ¶ 29; see *id.* at ¶ 30, Graph 4, and Table 1. It is not clear what Dr. Burtis's argument is that connects the success of independent *publishers* with an assessment of competition between *retailers*. Dr. Burtis documented the increase in publishers selling e-books at Amazon, which her data clearly show began from the inception of Amazon's e-book store. Burtis Report, at Table 1. Dr. Burtis does not assert that the Apple Agency Agreements had any causal impact on the number or the rate of growth of publishers selling e-books or on small publishers' share of e-book sales. Indeed, using the data from Dr. Burtis's Table 1, I found that the number of publishers selling e-books at Amazon grew more quickly (at an annualized rate of 246%) during the pre-agency period than during the post-switch period (during which this number increased at an annualized rate of 163%).

¹⁵⁹ Burtis Report ¶ 23.

some period of time after the increase in e-book prices, it is incorrect to attribute the increase in sales to the adoption of agency pricing.

230. My analysis of the data also shows that units sold per week aggregated across retailers of the titles of each defendant publisher, of Random House, and of all other publishers aggregated together have generally increased since at least 2009, with the exceptions of drops in units following the holiday-season upward spikes in unit sales. See Figure 8. Thus there was a pre-existing trend of growth in e-book unit sales before defendants' adoptions of the Apple Agency Agreements.

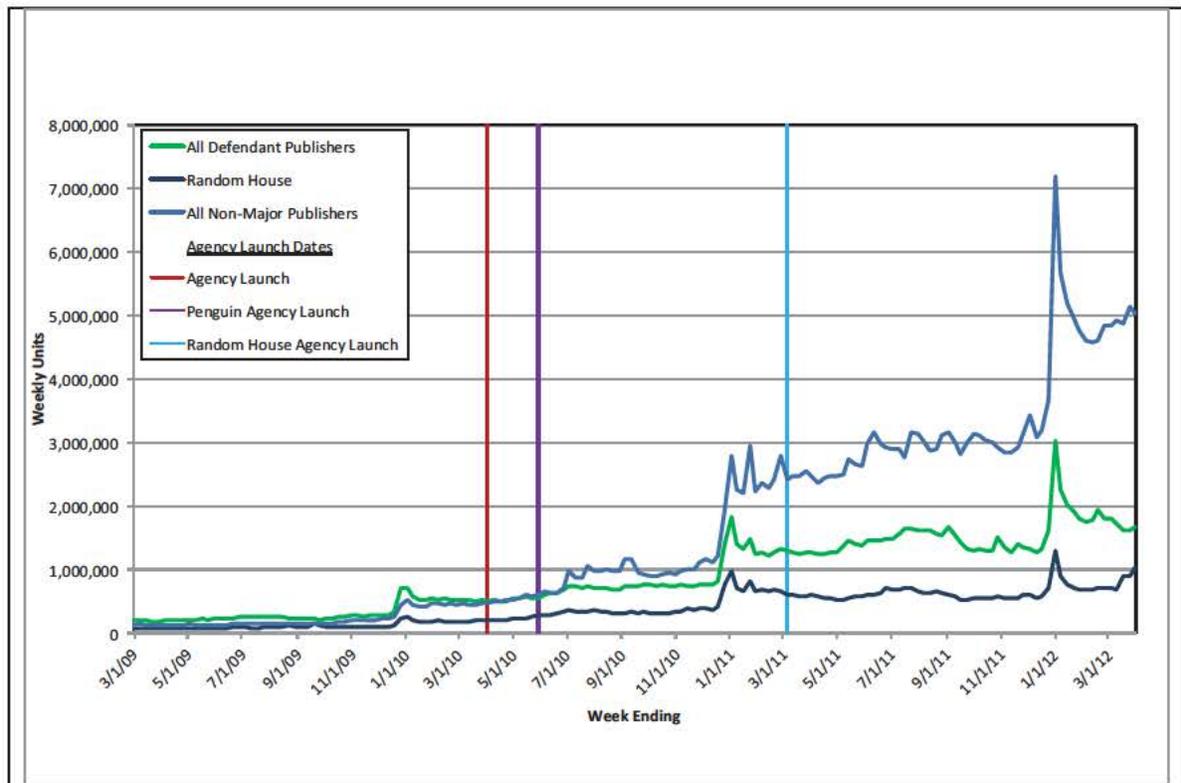


Figure 8: E-book unit sales by defendant publishers, Random House, and non-major publishers

231. Further, my analysis in Section IV.C.2 shows that e-book sales by the four First Wave Agency Publishers *fell* after they switched to agency pricing, while non-defendant

publishers *gained* unit sales.

232. The secular increasing trend in e-books unit sales persisted after the adoptions of the Apple Agency Agreements despite higher prices on defendant publishers' titles from agency pricing. The explanation for the increase in e-book sales despite price increases is that the demand for e-books has increased as more consumers have turned to digital books with the adoption of e-readers and general-purpose tablets. This increase in demand does not rely on any effect flowing from the Apple Agency Agreements. E-reading is a relatively recent phenomenon. As with any innovation, its growth would be expected to be a dynamic innovation-diffusion process. There is no reason to think that, but for the Apple Agency Agreements, there would have been no or less growth in e-reading.

233. Further undercutting any claim that the adoption of the Apple Agency Agreements contributed to the growth of e-book output, using the same unit sales reported by Dr. Burtis, I find that the number of paid e-book purchases of all titles at all e-retailers grew *more slowly* in the year following the switch to agency than during the year prior to agency. From the first quarter of 2009 to the first quarter of 2010, the number of paid e-book unit sales at all retailers grew by 368%. Over the next year, from the second quarter of 2010 to the second quarter of 2011, this growth had slowed to 233%.

234. Although any alleged mechanism by which defendants' actions could have led to growth in e-book output is unidentified, presumably that mechanism would have led to growth in output of defendant publishers' own e-books disproportionately; i.e., relative to the non-agency publishers (at the time of the switches, Random House and the non-major publishers). Thus, if defendants are correct, the defendant publishers' output of e-books should have grown more quickly than the e-book output of non-agency publishers.

235. Instead, defendant publishers' aggregate sales have grown more slowly than the aggregate sales of all other publishers. This is immediately evident either from Dr. Burtis's Graph 4 from her initial report or from Figure 8 in my February 8, 2013 report, both of which show that defendant publishers' share of e-book sales has been decreasing following the switch to agency.

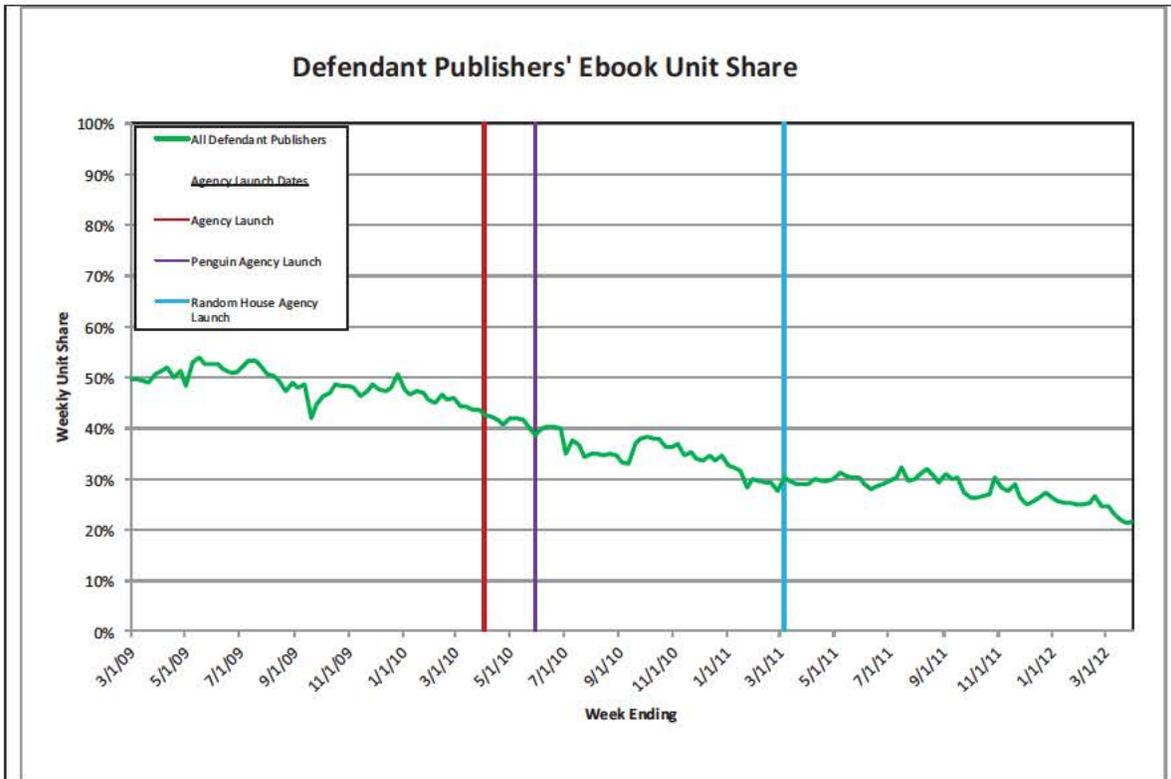


Figure 9: Defendant publishers' aggregate share of unit sales has declined since they switched to agency. Thus they have grown more slowly than non-defendant publishers have.

236. This conclusion is reinforced by documents produced in this litigation that indicate that sales of Random House e-book titles grew more quickly than did the sales of e-book titles of publishers that had gone to agency.¹⁶⁰

¹⁶⁰ For example, immediately after the switch to agency an email from Random House executive Madeline McIntosh contained notes from a meeting with Amazon including: “‘Agency’ publishers’ sales **declined 20%** overall. Some backlist segments that had been particularly impacted by higher prices dropped by as much as

237. Figure 10 shows output shares for (a) defendant publishers as a group, (b) Random House, and (c) non-major publishers as a group. As I already showed in Figure 9, the defendant publishers' share of output declined following the switches to agency. It is clear from the chart that the output share of non-major publishers has grown significantly. The output share of Random House following defendant publishers' moves to agency (but before Random House itself moved to agency) shows a relatively slight decline. From these observations I conclude that (a) the output of non-major publishers grew at a faster rate than either Random House's output or the output of defendant publishers and (b) that the output of Random House grew more quickly than the output of the defendant publishers; this is consistent with the evidence from the record I discussed above.

60%. . . . Random House sales **increased by 10%.**" PX-0527 at 1 (RH-USDOJ-00013521) (Apr. 13, 2010, email from Madeline McIntosh within Random House) (emphasis in original). This trend continued, as an email from Amazon executive David Naggar to Madeline McIntosh from August 2010 states: "And as to your share, you continue to grow at an amazing pace. In the first quarter, you were our #1 publisher, but almost even with #2 (2% gap). Last month, you were more than double the size of the next largest publisher." PX-0551 (Aug. 12, 2010, email from David Naggar to Madeline McIntosh).

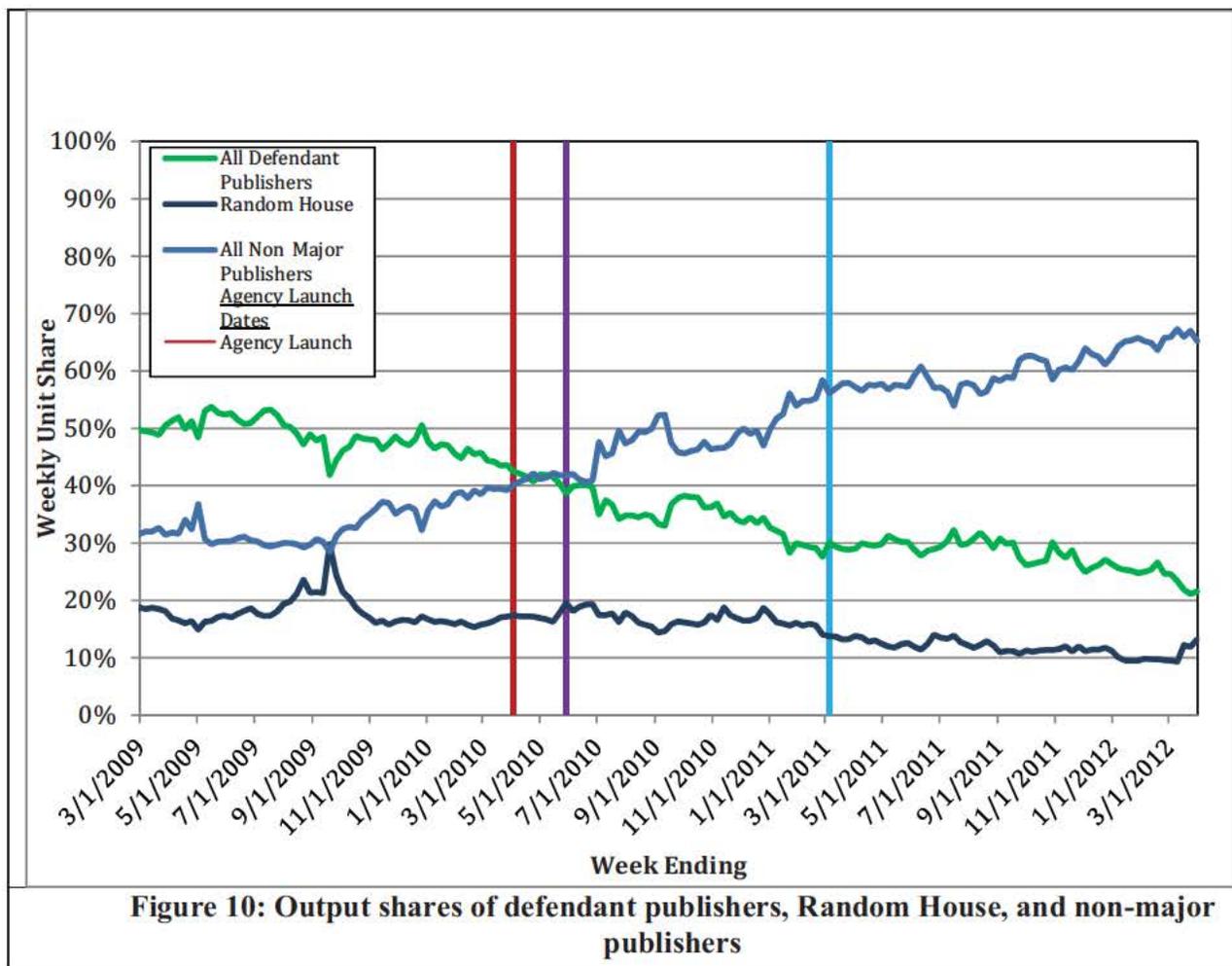


Figure 10: Output shares of defendant publishers, Random House, and non-major publishers

238. Thus, defendants’ experts have not shown that the Apple Agency Agreements led to increases in e-book sales.

IX.A.2. The rate of growth of free units of e-books did not increase following the adoptions of the Apple Agency Agreements.

239. In her initial report Dr. Burtis also suggested that more free units of e-books were distributed following the defendant publishers’ switch to agency.¹⁶¹ However, no defendant expert established that the increase in free units of e-books was a consequence of the defendant

¹⁶¹ Burtis Report, at n.20. Similarly, Professor Rubinfeld stated that “[t]he move to agency was accompanied by a substantial expansion of the provision of free e-books.” Rubinfeld Report, at section heading between ¶¶ 115 and 116, Exhibit 14.

publishers' switch to the agency model.

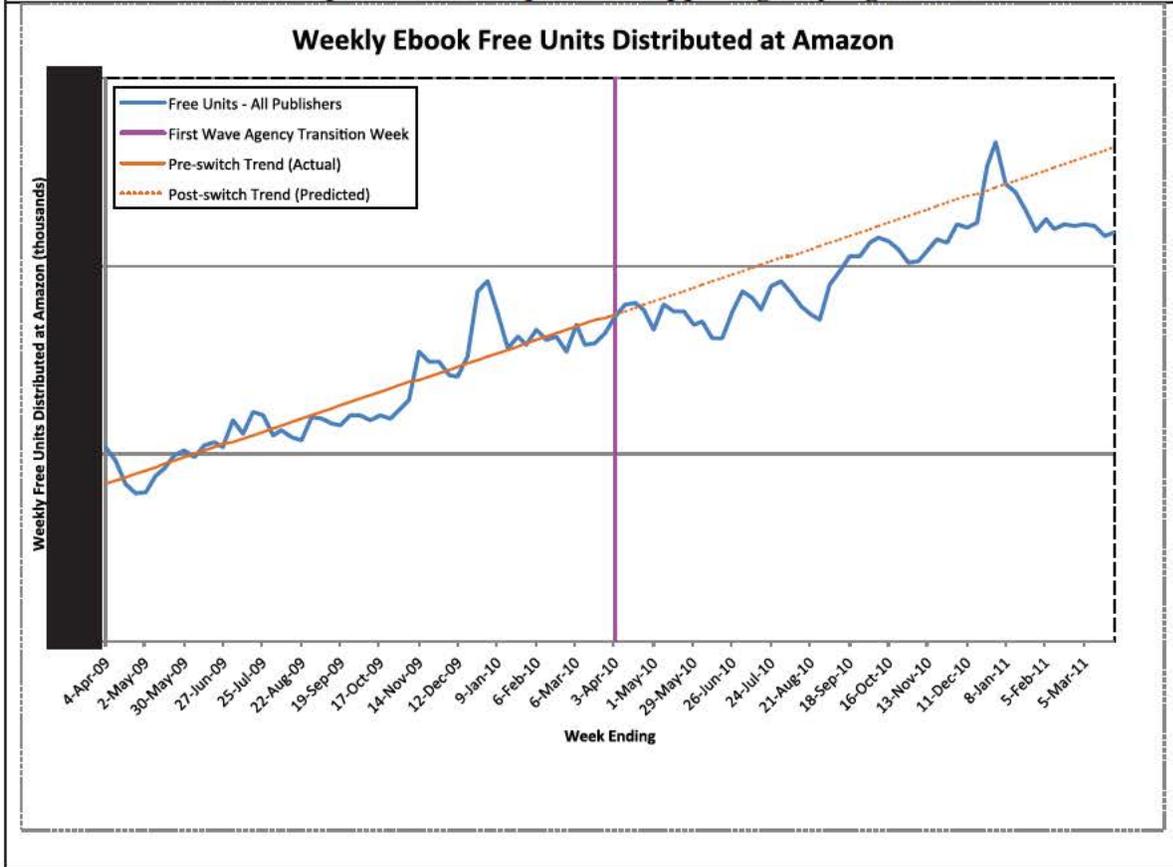
240. I analyzed the number of free units distributed each week at Amazon from April 2009 to March 2011. Figure 11 plots the log-scaled weekly free units of e-books distributed at Amazon in that two-year period.¹⁶² I fitted a time trend based on the weekly free units distributed at Amazon in the one-year period (April 2009–March 2010) prior to agency, which is shown by the solid line in the Figure 11. I then extended this trend to the one-year period (April 2010–March 2011) following the switch, as shown by the dotted-line continuation of the solid line. Because this figure uses a log scale on the vertical axis, the slope of the fitted line in the figure represents the average growth rate of free units during the one-year period prior to agency. This chart demonstrates clearly that there was no increase in the growth rate of free units distributed at Amazon following the First Wave Agency Publishers' switch to agency: the weekly free units of e-books did not grow more quickly than the pre-agency trend.¹⁶³

241. Thus, this analysis refutes the suggestion by defendants' experts that adoption of the Apple Agency Agreements had a positive impact on expanding the free units distributed at Amazon. The growth of free units of e-books was the continuation of an existing trend and cannot be claimed as a procompetitive benefit as a result of the Apple Agency Agreements.

¹⁶² Plotting the logarithm of weekly sales makes inference on the growth rate of free e-book units straightforward. The slope of the fitted line is the growth rate of free e-book units over time.

¹⁶³ I also performed a standard test in statistical analysis—the “Chow Test”—to formally test whether there was a change in the rate of growth in free e-book units offered at Amazon after April 2010. Using this method, I tested the hypothesis that there was no change in the pre-existing e-book free-unit trend following the defendant publishers' switch to agency. The Chow Test failed to reject that hypothesis at the 5% significance level. This statistical test indicated that there was no statistically significant change in the growth rate of free e-books as a result of the defendants' adoption of the Apple Agency Agreements.

Figure 11: The growth rate of free e-books at Amazon did not increase when defendant publishers adopted the Apple Agency Agreements



IX.B. Defendants’ participation in the Apple Agency Agreements did not lower e-reader prices or promote e-reader innovation.

IX.B.1. Defendants’ experts have not shown that improvements in the quality-adjusted prices of e-readers and other innovations are attributable to the Apple Agency Agreements rather than to general technological trends.

242. Defendants and their experts have argued that the increases in e-book prices resulting from their moves to agency were offset by decreases in e-reader prices and additional e-reader innovations that, they claim, are attributable to defendant publishers’ moves to agency.

243. In her initial report, Dr. Burtis noted that “since the agency agreements went into effect, eBook retailers have introduced many new and innovative eReader devices and tablets at

lower prices.”¹⁶⁴

244. Nowhere did the defendants’ experts assert that, absent the Apple Agency Agreements, (a) any of these new devices would not have been introduced or would have been introduced later, (b) any of the higher quality or greater functionality of any device would not have materialized, (c) prices for any device would be higher, or (d) fewer devices would have been sold.

245. I find that defendants’ claim that these price decreases arose to any extent from their challenged actions in this case are at best speculative for two reasons. First, traditional explanations for decreased prices and increased quality are sufficient to explain the history of e-reader prices and innovations, so there is no need to invoke defendants’ theory to explain decreases in quality-adjusted prices that would have been expected in any case.

246. Second, the defendant publishers’ moves to agency occurred at the same time as the launch of the iPad. Therefore, it likely would be problematic to identify any effects of agency pricing on e-readers separately from any effects of competition from the iPad merely by comparing prices and product features before and after agency.

247. It is indeed the case that prices of e-readers have declined and their quality has increased. But understanding this fact does not require an appeal to allegedly beneficial effects of defendants’ challenged actions in this case.

248. Rather, this decrease in quality-adjusted price of e-readers is a familiar theme in consumer electronics.¹⁶⁵ The prices of consumer electronics tend to decrease with time and their

¹⁶⁴ Burtis Report ¶ 32; *see also* Burtis Report ¶¶ 33–34 and Exhibit 3. Professor Rubinfeld made similar claims. Rubinfeld Report ¶¶ 41–42.

¹⁶⁵ The quality adjusted price of a product declines when its price declines, when its quality increases, or when both occur.

quality and performance increase with time.¹⁶⁶ The history of prices and innovations in e-readers is consistent with these broad trends.¹⁶⁷

249. The argument defendants have put forward essentially boils down to “[s]ince the adoption of the agency model, the price for a basic Kindle eReader has decreased from \$259 to \$79,” and then taking credit for the decline: “The Publishers’ adoption of agency has produced a substantial reduction in the price of that bundle [of an e-reader device plus the e-books that would be used on the device over its lifetime].”¹⁶⁸

IX.B.2. Professor Murphy refers to software innovations by Apple but does not establish these as a source of significant benefit linked to the Apple Agency Agreements.

250. In his initial report, Professor Murphy stated:

I understand that the iBooks app and iBookstore also introduced software innovations designed to improve the e-reading experience. The iBooks app introduced innovative features such as color, pictures, and fixed layout (features that I understand are particularly useful for graphics-intensive books like textbooks, cookbooks, children’s books, and travel guides).¹⁶⁹

251. However, Professor Murphy did not present a methodology that would assess the significance, if any, of these developments. Indeed, in his deposition Professor Murphy disavowed reaching any conclusions about the net effects on consumers of the Apple Agency Agreements.¹⁷⁰ I note that many of the referenced software enhancements were focused on a small subset of e-book sales, such as textbooks, cookbooks, children’s books, and travel guides (none of which are included in the alleged relevant product market).

¹⁶⁶ See, e.g., Gautam Gowrisankaran & Marc Rysman, *Dynamics of Consumer Demand for New Durable Goods*, Working Paper 14737, National Bureau of Economic Research, (Feb. 2009) <http://www.nber.org/papers/w14737>, at 2 (“[R]apidly falling prices and improving features have been among the most visible phenomena in a large number of other new consumer durable goods markets, including computers, DVD players, and HDTVs.”).

¹⁶⁷ Russell Grandinetti Dep. (Jan. 28, 2013), 280:19–281:5.

¹⁶⁸ PX-0796 at 32 (USDOJ-00005139).

¹⁶⁹ Murphy Report ¶ 85.

¹⁷⁰ Kevin M. Murphy Dep. (Mar, 26, 2013), 9:22–10:11.

252. Moreover, there is no reason that absent the iBookstore other e-reader apps would not have exploited the color capabilities of the iPad.

253. Professor Murphy suggested that, but for Apple's iBookstore, Amazon may have refused to develop a Kindle app for the iPad or to develop a Kindle app that would provide an attractive reading experience on the iPad:

Before the iPad and iBookstore, Amazon had little incentive to encourage reading on an alternative platform like the iPad. In particular, it had little incentive to encourage iPad owners to purchase best sellers from Amazon at \$9.99 (several dollars below Amazon's cost), and then read those e-books using a free Kindle app, because doing so might make it less likely that those consumers would purchase a Kindle reading device. As long as iPad owners who wanted to read e-books had to purchase from third parties (which, given its share of sales, likely meant from Amazon) and Amazon's incentive in pricing the most popular e-books below cost was largely to sell Kindles (and perhaps other items as well), there would have been less incentive for such firms to facilitate an attractive reading experience for the iPad.¹⁷¹

254. In effect, Professor Murphy argued that, had Apple not launched its own e-book store, Amazon would have found it more profitable to disadvantage the iPad as a device on which to read Amazon e-books because that would compel some customers to purchase a Kindle (either instead of or in addition to an iPad). On balance, Professor Murphy argued, Amazon would have preferred to write off as e-book customers those with iPads that choose not to buy a Kindle device in order to gain additional sales of Kindle devices. Thus, Professor Murphy argued, the benefits to consumers from the existence of a Kindle app on the iPad are attributable to the Apple Agency Agreements.¹⁷²

255. Well before the move to agency, Amazon was committed to expanding access to

¹⁷¹ Murphy Report ¶ 81.

¹⁷² Professor Murphy appeared to moderate his view in deposition, claiming only that "there would have been somewhat less incentive" for Amazon to develop a Kindle app for the iPad absent the iBookstore. Kevin M. Murphy Dep. (Mar. 26, 2013), 302:9-303:6.

Kindle content to other devices.¹⁷³ Indeed, one of Amazon's first responses to hearing reports of Apple's new tablet device entry as an e-book retailer was to remind publishers "that we have Kindle for iPhone and Kindle for PC and we're very excited to sell this type of content."¹⁷⁴

256. Amazon in fact offers free Kindle apps for devices including the iPhone, iPod touch, iPad, Android phones, Android tablets, Windows Phone, Windows 8 tablets, and Blackberry. Amazon also offers apps for computer operating systems, including Mac OS, Windows 8, Windows 7, Windows XP, and Windows Vista. Many of these apps were first offered before the iPad was released.

257. Amazon's investment in its iPad app has succeeded in selling significant amounts of content for consumption on the iPad. Kindle app usage reached 3.1 minutes a day in May 2010 across all users of the iPad, and Steve Jobs concluded from other app statistics that "iPad readers use the Kindle app about as successful [sic] as the iBooks app."¹⁷⁵ Amazon has continued to sell e-book content through its Kindle app and has "a healthy business selling Kindle books to people who don't own a hardware device that [Amazon] built."¹⁷⁶

258. Therefore Amazon had significant incentives to create a high-quality Kindle app for the iPad, and there is little evidence that Amazon had the strategic concern that a high-quality Kindle app for the iPad would cannibalize sales of Kindle devices on which Professor Murphy's argument relies.

¹⁷³ See Grandinetti Direct ¶¶ 16–18 (describing Amazon's Kindle app design and saying "[w]e don't see it as inconsistent to work on trying to build the best reading device in the world, and also to recognize that people are going to want to read on different devices at different times. and to support that."); David Naggar Direct ¶¶ 6 [REDACTED] [REDACTED] "[t]his commitment to apps meant customers would be able to read their Kindle books even if they chose not to buy a Kindle device, and that Amazon's focus was, and would continue to be, on selling content regardless of the customer's hardware choice").

¹⁷⁴ PX-0700 (Jan. 18, 2010, email from David Naggar to others at Amazon).

¹⁷⁵ PX-0747 (May 7, 2010, email from Steve Jobs).

¹⁷⁶ Grandinetti Direct ¶ 18.

259. I find Professor Murphy’s argument implausible for an additional reason. Professor Murphy does not acknowledge or take into account that, had Amazon refused to provide a Kindle app on the iPad (or had provided a poor-quality app), other e-book retailers (such as Barnes & Noble, Sony, Kobo, or Google) still would have provided apps for the iPad. This would have provided a pathway for an iPad owner to obtain e-books without purchasing a Kindle device. Such a competitive move by other e-book retailers would defeat whatever profitability there would otherwise have been for Amazon in following the scenario Professor Murphy outlines.¹⁷⁷

260. For these two reasons together, I find that Professor Murphy has not demonstrated that the existence and quality of the Kindle app for the iPad is a procompetitive effect arising from the creation of Apple’s iBookstore.¹⁷⁸

IX.C. Defendants’ participation in the Apple Agency Agreements did not help sales by traditional brick-and-mortar bookstores.

261. Defendant publishers have alleged that Amazon’s low-price sale of e-books was eroding sales of print books and the promotional and marketing services provided by brick-and-mortar bookstores. I find no support that defendant publishers’ higher e-book prices following their adoption of agency has affected sales of print books to any substantial extent.

262. In Section VII.B.3, I examined whether the adoption of defendant publishers’ higher e-book prices following their adoption of the Apple Agency Agreements had any effect on Amazon’s sales of the same titles in their physical format. I found that there was no

¹⁷⁷ Firms have unilateral incentives to innovate and steal business from their rivals. *See, e.g.*, Jan Boone, *Intensity of Competition and the Incentive to Innovate*, 19 INT’L J. INDUS. ORG. 705 (2001). Even a dominant firm has an incentive to innovate to maintain an edge over its existing and potential rivals. *See* Richard Gilbert & David Newbery, *Preemptive Patenting and the Persistence of Monopoly*, 72 AM. ECON. REV. 514 (1982).

¹⁷⁸ Professor Klein characterizes Apple’s entry into the retail distribution of e-books to be “an inherently procompetitive objective.” Klein Report ¶ 11. Professor Klein does not further address this question, noting that “I understand that this is discussed in the Expert Report of Kevin Murphy, Feb. 8, 2013.” Klein Report, at n.2.

statistically significant increase in Amazon's sales of the corresponding print books.

263. The fact that Amazon customers did not switch to any significant extent to print books in response to higher pricing of the corresponding e-books is evidence that consumers would be unlikely to significantly increase their patronage of brick-and-mortar book sellers in response to higher e-book agency prices. When faced with higher e-book prices resulting from agency pricing, Amazon's customers did not shift their purchases to the print books. The book titles were available in both formats and it would have been easy for customers to choose the print format instead of the e-book. Nonetheless, the extent of such substitution was not significant. The lack of substitution between e-books and print books for online purchases implies that it is also unlikely that consumers would switch to a brick-and-mortar bookseller in response to higher e-book prices resulting from agency pricing.

264. Many factors have contributed to the decline of brick-and-mortar bookstores, some of which pre-date the arrival of e-books, and are similar to factors that affected other brick-and-mortar businesses, such as hardware and music stores. Smaller independent brick-and-mortar bookstores have had difficulty competing against the larger bookseller chains and mass marketers such as Wal-Mart and K-Mart. Efforts by bookstores to supplement book sales with sales of CDs and DVDs suffered as online sales of music and video replaced sales of physical media. In addition, online sellers offer print books as well as e-books.

265. A 2009 HarperCollins document forecasted that in-store print book purchases would drop (as a share of all print books and e-book purchases) from 90% in 2008 to 68% in 2013. Of this forecasted 22 percentage point drop, 16 percentage points were attributed to the increasing share of online *print book* sales; only 6 percentage points were attributed to

e-books.¹⁷⁹

266. E-reading is a manifestation of technological progress. To the extent that consumers are migrating from reading print books to reading e-books, they are doing so because they find benefit in the migration. Erecting obstacles to the diffusion of e-reading by raising the prices of e-books is not a consumer benefit; these higher prices for e-books are a harm to consumers.

267. Traditional brick-and-mortar bookstores have faced many competitive headwinds, and defendants have not provided evidence that competition from e-books is a significant factor in their decline.

IX.D. Defendants’ experts claim the existence of procompetitive benefits from “enhanced diversity” in retail but do not demonstrate their significance.

268. Dr. Burtis claimed that because some consumers chose to make purchases post-agency through the iBookstore over other retail outlets, “there was a reason for that.”¹⁸⁰ Similarly, Professor Rubinfeld said that “the move to agency generated a number of procompetitive benefits, including enhanced diversity and innovation in retail distribution of e-books.”¹⁸¹ Professor Rubinfeld argued that the “post-agency e-books market share gains of Apple and Barnes & Noble reflect the fact that some customers prefer the overall user experience of purchasing e-books from Apple and/or Barnes & Noble as compared to Amazon.”¹⁸²

269. Even if true, this does not establish that the Apple Agency Agreements are procompetitive. An increase in the diversity of consumer purchases does not necessarily imply consumer benefit. As I explained in my initial report, part of Amazon’s popularity among

¹⁷⁹ PX-0472 at 4 (HC-TXAG-0463966). *See also* PX-0214 at 6 (HC-DOJ-0028052) (“Bricks & Mortar business as declining as sales migrate online.”).

¹⁸⁰ Michelle Burtis Dep. (Apr. 5, 2013), 157:2–12.

¹⁸¹ Rubinfeld Report ¶ 25.

¹⁸² Rubinfeld Report ¶ 25.

e-book consumers pre-agency was due to its commitment to low pricing. After Amazon lost this advantage post-agency, it lost some market share and (as a matter of arithmetic) other retailers gained share. This does not necessarily mean, however, that consumers preferred buying from other retailers over buying from Amazon at a lower retail price, as this option was no longer available to consumers post-agency with regard to defendant publishers' e-book titles.¹⁸³

270. Professor Rubinfeld did not assert that Barnes & Noble's "post-agency e-books market share gain[]" was a result of the Apple Agency Agreements, and thus he has not asserted that this is a source of procompetitive justification for the Apple Agency Agreements. Indeed, Barnes & Noble had been taking share from Amazon and Sony ever since the launch of the Nook in the fall of 2009.¹⁸⁴ Thus there is no reason to assume that additional increases in Barnes & Noble's share were attributable to the Apple Agency Agreements rather than a continuation of the pre-agency trend resulting from Barnes & Noble's launch of its dedicated e-reader, the Nook.

271. Dr. Burtis and Professor Rubinfeld both attributed Apple's entry as an e-book retailer to the Apple Agency Agreements.^{185, 186} Professor Rubinfeld also claimed as procompetitive benefits "that some consumers prefer the overall user experience of purchasing e-books from Apple" and that "Apple's innovations its e-book creations and its e-book reading user experience would likely have been unavailable."¹⁸⁷

272. Professor Rubinfeld did not discuss in any greater detail Apple's "e-book creations"¹⁸⁸ or Apple's "e-book reading user experience,"¹⁸⁹ nor did Professor Rubinfeld

¹⁸³ Amazon was not the only retailer wishing to differentiate itself on pricing. Google similarly wanted to differentiate itself with regard to its pricing and promotional activities but was restricted under agency. Turvey Direct, ¶¶ 4, 8.

¹⁸⁴ See Rubinfeld Report, at Exhibit 13A, Exhibit 13B; Figure 1, *supra*.

¹⁸⁵ "But-for the move to agency, Apple would not have entered." Rubinfeld Report ¶ 25.

¹⁸⁶ Michelle Burtis Dep. (Apr. 5, 2013), 199:10–200:5.

¹⁸⁷ Rubinfeld Report ¶ 25.

¹⁸⁸ Professor Rubinfeld referred to unspecified Apple "e-book creations." Rubinfeld Report ¶ 25.

provide any analysis to quantify these alleged benefits.¹⁹⁰ Similarly, Professor Rubinfeld offered no analysis to assess how to value “that some consumers prefer the overall user experience of purchasing e-books from Apple.”¹⁹¹ In particular, neither Professor Rubinfeld nor Dr. Burtis could distinguish any benefits that resulted from consumer adoption of the iPad and the publication of e-books in formats that exploit the capabilities of the iPad as distinct from benefits that are specific to adoption of the Apple Agency Agreements or the entry of the iBookstore.^{192, 193}

273. Professor Rubinfeld also stated in his report that:

Without competition from Apple and other new entrants, and with diminished competition from Barnes & Noble and other incumbents, Amazon’s dominant pre-agency market position would have been maintained, protected by substantial barriers to entry.¹⁹⁴

274. Yet Dr. Burtis could not identify any other entry that resulted from the Apple Agency Agreements beside Apple.¹⁹⁵ Even if one assumes that new entry occurred as a result of the Apple Agency Agreements that reduced Amazon’s market position, Amazon’s low prices still benefited e-book consumers. Lowering Amazon’s share of e-book sales by inducing Amazon to charge higher prices through the adoption of the agency pricing model is not a benefit to consumers.

¹⁸⁹ Professor Rubinfeld referred to unspecified Apple “e-book reading user experience” Rubinfeld Report ¶ 25.

¹⁹⁰ Professor Rubinfeld later referred to Apple’s “iBookauthor [sic] application,” Rubinfeld Report ¶ 120, but Professor Rubinfeld does not allege that the existence of this application—which Apple designed primarily for textbooks, Philip Schiller Dep. (Dec. 20, 2012), 226:3–12, and released in 2012, Apple (Keith Moerer) Dep. (Dec. 13, 2012), 78:9–10—is attributable to the Apple Agency Agreements.

¹⁹¹ Rubinfeld Report ¶ 25. For example, Professor Rubinfeld provided no evidence that Apple’s iBookstore’s share of e-book sales is actually evidence of consumers’ revealed preference for the iBookstore vis-à-vis any other e-book retailer. As a result of the retail-price MFN in the Apple Agency Agreements, the retail price for frontlist e-books was the same at all retailers. Thus a customer’s choice to purchase at the Apple iBookstore may not represent a significant expression of preference for the iBookstore as a retailer.

¹⁹² There is no reason to suspect that e-books would not have been available through apps on the iPad.

¹⁹³ Michelle Burtis Dep. (Apr. 5, 2013), 113:14–114:4.

¹⁹⁴ Rubinfeld Report ¶ 25.

¹⁹⁵ Michelle Burtis Dep. (Apr. 5, 2013), 229:25-230:24.

IX.E. The entry of Apple as an e-book retailer did not lead to greater inter-retailer price competition because Apple’s entry with the iBookstore was conditioned on the restriction of inter-retailer price competition on the commercially most important e-books.

275. Professor Klein said that the “contracts that Apple negotiated with publishers contained terms that Apple independently determined were commercially reasonable and established the conditions required for it to enter into retail distribution of e-books” and characterizes the entry of Apple as an e-book retailer as “an inherently procompetitive objective.”¹⁹⁶

276. A new entrant can benefit consumers by creating new competition that results in lower consumer prices or increased choice or quality. However, I note that none of defendants’ experts argue that the entry of the Apple iBookstore as an e-book retailer generated consumer benefit from intensified inter-retailer price competition. Furthermore, the limited success of the iBookstore suggests, in retrospect, that it offered few benefits from increased quality or choice. The cost Apple imposed on consumers for the entry of Apple as an e-book-retailing “competitor” was the decrease in inter-retailer price competition caused by the Apple Agency Agreements. Inter-retailer price competition before defendant publishers adopted the agency model provided consumers with significantly lower e-book prices.

277. Indeed, lowering prices was neither the intent nor the effect of the Apple Agency Agreements. The evidence is clear that the intent of the Apple Agency Agreements was to raise retail prices for newly released and New York Times bestselling e-books. Moreover, the evidence shows that the Apple Agency Agreements succeeded in raising the prices of these frontlist e-book titles as well as those of the backlist titles.

278. Adoption of the Apple Agency Agreements and entry of the iBookstore resulted

¹⁹⁶ Klein Report ¶ 11.

in higher trade e-book prices and lower output of defendant publishers' trade e-books.¹⁹⁷

Defendants' experts have not shown that any of the increase in aggregate e-book sales was a result of the Apple Agency Agreements rather than of the preexisting underlying growth trend in e-reading. This is contrary to the effects one should expect if the agreements and the entry of the iBookstore had been procompetitive. New competition increases the total aggregate economic welfare of consumers and producers if it results in greater output, lower prices, or higher quality although consumers taken alone would be harmed if the increase in output is accompanied by sufficiently higher prices.

279. In some situations an increase in output may require higher prices, for example if retailers must be compensated for costly services they provide and if the efficient means to provide such compensation is through higher retail margins. Such higher margins can be procompetitive if they result in higher output by promoting inter-brand competition,¹⁹⁸ certifying quality,¹⁹⁹ or better aligning the incentives of retailers and manufacturers.²⁰⁰ Yet the evidence here is that the increase in e-book retailer margins on defendant publishers' e-books following the adoption of the Apple Agency Agreements resulted in higher prices and a lower quantity of defendant publishers' titles. Defendants' experts have not shown that there was a net increase in output that could be attributed to the Apple Agency Agreements.

280. Moreover, the defendants' experts have not explained why higher margins are necessary for e-retailers to promote the sale of e-books, other than the argument that those margins were a pre-condition of entry of the iBookstore and that they were desired by e-book

¹⁹⁷ See Section IV.C.2, Section VI, and Section VII, *supra*.

¹⁹⁸ See, e.g., Lester Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J.L. & ECON. 86 (1960).

¹⁹⁹ See, e.g., Howard P. Marvel & Stephen McCafferty, *Resale Price Maintenance and Quality Certification*, 15 RAND J. ECON. 346 (1984).

²⁰⁰ See, e.g., Benjamin Klein, *Competitive Resale Price Maintenance in the Absence of Free-Riding*, 76 ANTITRUST L.J. 431 (2009).

retailers such as Barnes & Noble.

281. Entry of the iBookstore is not, by itself, procompetitive unless it results in an increase in output, lower prices, or an increase in quality. The evidence is that the combination of the iBookstore and the Apple Agency Agreements raised prices and did not increase the sales of trade e-books. Furthermore, defendants' experts have not shown that any claimed increase in the quality of trade e-books is attributable to the combination of the iBookstore and the adoption of the Apple Agency Agreements separate and apart from the entry of the iPad and therefore offsets the resulting increases in the prices of trade e-books. Moreover, defendants' experts have not established that the Apple Agency Agreements were instrumental in any other retailer continuing its sales of trade e-books.

282. In summary, I conclude that defendants' experts have failed to show that the entry of Apple as an e-book retailer has generated a significant consumer benefit attributable to the Apple Agency Agreements that would warrant being counted as a procompetitive justification for the defendants' actions.

X. Nothing in defendants' experts' rebuttal reports or deposition testimony leads me to significantly revise my views.

283. I have reviewed both the Rebuttal Reports and transcripts of the deposition testimony of Professors Murphy, Klein, and Rubinfeld, and Dr. Burtis. As reflected in my direct testimony above, nothing in this new material, which appeared after I submitted my initial Report and Rebuttal Report, leads me to significantly revise the opinions I expressed in those Reports. In this Section, I address several criticisms raised by Professor Murphy and Dr. Burtis in their deposition testimony.

X.A. Professor Murphy’s “critical question” is not relevant to assessing whether the Apple Agency Agreements are anticompetitive.

284. In his deposition, Professor Murphy stated that I failed to address what he calls the “critical question” in this matter: “did Apple behave in a way that’s inconsistent with what we would expect them to do if they were acting in their own individual interest absent participation in a conspiracy”²⁰¹ My understanding is that the language of “individual interest absent participation in a conspiracy” derives from a particular legal test, which would be outside my expertise as an economist. To the extent I understand Professor Murphy’s use of these terms, he is correct that I do not address his “critical question.”

285. In particular, I do not address the issue of “conspiracy,” which I consider a legal concept that involves an assessment of the nature of communications among parties for which I have no special expertise as an economist. I note, however, that I have reached the following conclusions:

- a. Defendant publishers entered into the Apple Agency Agreements in order to increase the retail prices of e-books, and Apple was aware of this publisher motivation.
- b. Apple understood that it shared with defendant publishers a common interest in restricting price competition from Amazon and other e-retailers.
- c. Apple understood both that (i) in order to achieve its own goals, the Apple Agency Agreements also would have to be acceptable to defendant publishers and that (ii) defendant publishers’ goals by their nature would require common action by multiple publisher defendants.
- d. A key feature of the Apple Agency Agreements Apple’s retail-price MFN

²⁰¹ Kevin M. Murphy Dep. (Mar. 26, 2013), 322:15–21.

helped to achieve the goal common to Apple and defendant publishers of eliminating inter-retailer price competition by incentivizing defendant publishers to, and aiding them in, forcing Amazon to accept agency terms.

- e. After adopting the Apple Agency Agreements, each defendant publisher set the vast majority of its retail prices for its frontlist and bestselling e-books at the applicable price cap incorporated into the Agreements, as if the applicable price caps were the de facto prices for the titles.
- f. In order to achieve their respective goals, Apple and the defendant publishers had to reconcile their apparent divergent interests as to how high prices could rise, and Apple assured the publishers that their contract terms would all be essentially the same.

Whether the foregoing conclusions, when combined with an assessment of contemporaneous communications among the parties, would amount to a finding of conspiracy, is a question that lies outside my expertise as an economist.

286. Moreover, with regard to his “critical question,” Professor Murphy explained in his deposition that he analyzed Apple’s conduct purely “from an inferential basis,” on the assumption that there exists “no direct evidence of Apple’s participation in a conspiracy as alleged in the complaint,” but that if there were such evidence “then my question becomes much less interesting.”²⁰²

287. The focus of my analysis, rather, has been on whether consumers have been harmed. As I discussed above, I have concluded that the Apple Agency Agreements allowed defendant publishers to substantially raise the retail prices of e-books, harming consumers.

²⁰² Kevin M. Murphy Dep. (Mar. 26, 2013), 93:8–98:18.

Furthermore, even accepting defendants' arguments regarding software innovations and other benefits from the iBookstore, the harm is greater than the benefit.

288. In his deposition, Professor Murphy defined anticompetitive conduct as “conduct that has the effect of reducing competition and harming consumers through a reduction in competition.”²⁰³ I agree with Professor Murphy's definition. Yet Professor Murphy testified that identifying any reduction in competition in this case was not a focus of his analysis.²⁰⁴ In particular, he testified that he has not studied and has no view on whether after the Apple Agency Agreements there was less price competition at the retail level than there was in the wholesale world.²⁰⁵ Professor Murphy also testified that it was not a focus of his analysis to assess whether there has been consumer harm after the Apple Agency Agreements went into effect.²⁰⁶ Given this, it is not clear how Professor Murphy's analysis is relevant to assessing whether the Apple Agency Agreements are anticompetitive.

X.B. Dr. Burtis's claim that defendant publisher customers may not have been harmed because they could substitute to a different e-book is not plausible.²⁰⁷

289. Following the price increases by defendant publishers from the adoption of agency contracts, consumers of defendant publishers' e-books that experienced price increases were harmed in three possible ways. First, consumers who purchased the e-book despite the price increase were harmed because they paid more than they would have but for the adoption of the agency agreements.

290. Second, consumers who chose not to purchase an e-book at all were also harmed because the price increase drove them to a less attractive alternative outside the market (except in

²⁰³ Kevin M. Murphy Dep. (Mar. 26, 2013), 306:17–307:8.

²⁰⁴ Kevin M. Murphy Dep. (Mar. 26, 2013), 306:17–307:16.

²⁰⁵ Kevin M. Murphy Dep. (Mar. 26, 2013), 289:6–13.

²⁰⁶ Kevin M. Murphy Dep. (Mar. 26, 2013), 12:16–14:7.

²⁰⁷ Michelle Burtis Dep. (Apr. 5, 2013), 82:25–84:8.

the unlikely event that all consumers were perfectly indifferent between the e-book and the alternative outside the market).

291. Third, consumers who choose to purchase an alternative e-book (one that did not experience a price increase) are also necessarily harmed unless they were all perfectly indifferent between the two e-books at the initial prices.²⁰⁸

292. Dr. Burtis's view that she cannot tell whether consumers of defendant publishers' e-books were harmed, in part because she does not know the "set of preferences" of consumers, can only be true if all consumers are perfectly indifferent between the defendant publisher's e-book and the alternative e-book that did not experience a price increase, which, given that e-books are a differentiated product, is not plausible.²⁰⁹

X.C. Dr. Burtis's "natural experiment" using Amazon's self-publisher agreement ignores the critical incentives differentiating the Amazon self-publisher agreement from the Apple Agency Agreements.

293. Dr. Burtis believes that Amazon's self-publisher agreement, which pre-dates the Apple Agency Agreements, can be used as a "natural experiment" for the potential effect of the Apple Agency Agreements, but she misses that the key incentives in Amazon's agreement differ from those in the Apple agreements and render her "experiment" invalid.²¹⁰

294. In January 2010, Amazon added a 70% royalty option to its self-publisher agreement (and continued to offer its 35% royalty option). To qualify for the 70% royalty option, the author/publisher was required to set the list price at no more than \$9.99, although Amazon retained control of the retail price.²¹¹ Undoubtedly, raising the compensation for

²⁰⁸ I would also note that if a consumer switched from a e-book that had a price increase to another e-book then that harm would not be reflected in the level of output because output would be unaffected by that substitution.

²⁰⁹ Michelle Burtis Dep. (Apr. 5, 2013), 82:9–84:8.

²¹⁰ Michelle Burtis Dep. (Apr. 5, 2013), 162:17–190:2.

²¹¹ PX-0710 at 3 (HBG00064896) (Jeffrey A. Trachenberg, *Amazon Launches Royalty Plan for E-Books*, WALL ST. J. (Jan. 21, 2010)).

self-published authors would make Amazon a more attractive place for self-published authors to distribute their works and perhaps encourage more output from self-published authors, but the Apple Agency Agreements had the opposite incentives. The Apple Agency Agreements lowered the compensation to both publishers and authors and increased prices for existing e-books.²¹² To the extent that Amazon's self-publisher contract encouraged an increase in output by increasing self-published author compensation, the Apple Agency Agreements likely discouraged additional output because it limited compensation to both publishers and authors.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct. Executed on April 25, 2013, in Oakland, California.

Respectfully,

A handwritten signature in cursive script that reads "Richard J. Gilbert". The signature is written in black ink and is positioned above the printed name.

Richard J. Gilbert, Ph.D.

²¹² See Section IV.C.3, *infra*.