Dissenting Statement of Commissioner Joshua D. Wright
In the Matter of Apple, Inc.
FTC File No. 1123108
January 15, 2014

Today, through the issuance of an administrative complaint, the Commission alleges that Apple, Inc. ("Apple") has engaged in "unfair acts or practices" by billing parents and other iTunes account holders for the activities of children who were engaging with software applications ("apps") likely to be used by children that had been downloaded onto Apple mobile devices.[1] In particular, the Commission takes issue with a product feature of Apple's platform that opens a fifteen-minute period during which a user does not need to re-enter a billing password after completing a first transaction with the password.[2] Because Apple does not expressly inform account holders that the entry of a password upon the first transaction triggers the fifteen-minute window during which users can make additional purchases without once again entering the password, the Commission has charged that Apple bills parents and other iTunes account holders for the activities of children without obtaining express informed consent.[3]

Today's action has been characterized as nothing more than a reaffirmance of the concept that "companies may not charge consumers for purchases that are unauthorized."[4] I respectfully disagree. This is a case involving a miniscule percentage of consumers – the parents of children who made purchases ostensibly without their authorization or knowledge. There is no disagreement that the overwhelming majority of consumers use the very same mechanism to make purchases and that those charges are properly authorized. The injury in this case is limited to an extremely small – and arguably, diminishing – subset of consumers. The Commission, under the rubric of "unfair acts and practices," substitutes its own judgment for a private firm's decisions as to how to design its product to satisfy as many users as possible, and requires a company to revamp an otherwise indisputably legitimate business practice. Given the apparent benefits to some consumers and to competition from Apple's allegedly unfair practices, I believe the Commission should have conducted a much more robust

[1] Complaint, Apple, Inc., FTC File No. 1123108, at para. 28-30 (Jan. 15, 2014) [hereinafter *Apple Complaint*].
[2] As indicated in the complaint, initially the fifteen-minute window was triggered when an app was downloaded. *Id.* at para. 16. Apple changed the interface in March 2011 and subsequently the fifteen-minute window was triggered upon the first in-app purchase. *Id*. at para. 17. *See also infra* note 13.
[3] *Apple Complaint*, *supra* note 1, at para. 4, 20, 28.
[4] Statement of Chairwoman Ramirez and Commissioner Brill at 1.

analysis to determine whether the injury to this small group of consumers justifies the finding of unfairness and the imposition of a remedy.

Section 5 of the FTC Act prohibits, in part, "unfair . . . acts or practices in or affecting commerce."[5] As set forth in Section 5(n), in order for an act or practice to be deemed unfair, it must "cause[] or [be] likely to cause substantial injury to consumers which is not reasonably avoidable by consumers themselves and not outweighed by countervailing benefits to consumers or competition."[6]

The test the Commission uses to evaluate whether an unfair act or practice is unfair used to be different. Previously the Commission considered: whether the practice injured consumers; whether it violated established public policy; and whether it was unethical or unscrupulous.[7] Only after an aggressive enforcement initiative that culminated in a temporary rulemaking suspension and Congressional threats of stripping the Commission of its unfairness authority altogether, was the current iteration of the unfairness test reached.[8] Importantly, this articulation, as set forth in the FTC Policy Statement on Unfairness ("Unfairness Statement"), not only requires that the alleged injury be substantial, it also includes the critical requirements that such injury "must not be outweighed by any countervailing benefits to consumers or competition that the practice produces" and "it must be an injury that consumers themselves could not reasonably have avoided."[9]

As set forth in more detail below, I do not believe the Commission has met its burden to satisfy all three requirements in the unfairness analysis. In particular, although Apple's allegedly unfair act or practice has harmed some consumers, I do not believe the Commission has demonstrated the injury is substantial. More importantly, any injury to consumers flowing from Apple's choice of disclosure and billing practices is outweighed considerably by the benefits to competition and to consumers that flow from the same practice. Accordingly, I respectfully dissent from the issuance of this administrative complaint and consent order.

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[5] 15 U.S.C. § 45(a).
[6] 15 U.S.C. § 45(n).
[7] FTC Policy Statement on Unfairness, *appended to* Int'l Harvester Co., 104 F.T.C. 949, 1070 (1984), *available at* http://www.ftc.gov/ftc-policy-statement-on-unfairness [hereinafter *Unfairness Statement*].
[8] ABA SECTION OF ANTITRUST LAW, CONSUMER PROTECTION LAW DEVELOPMENTS, 57-59 (2009); J. Howard Beales, III, Director, Bureau of Consumer Protection, Fed. Trade Comm'n, The FTC's Use of Unfairness Authority: Its Rise, Fall, and Resurrection at 9 (May 2003), *available at* http://www.ftc.gov/public-statements/2003/05/ftcs-use-unfairness-authority-its-rise-fall-and-resurrection [hereinafter *Beales' Unfairness Speech*].
[9] *Unfairness Statement*, *supra* note 7, at 1073.

Introduction

This case requires the Commission to analyze consumer injury under the unfairness theory in a novel context: an allegation of a failure to disclose a product feature to consumers that results in some injury to one group of consumers but that generates benefits for another group.

The circumstances surrounding Apple's decision to forgo disclosing during the transaction the fifteen-minute window to its users – and according to the Commission's complaint, thereby failing to obtain express informed consent – are distinguishable from any other prior Commission case alleging unfairness. The economic consequences of the allegedly unfair act or practice in this case – a product design decision that benefits some consumers and harms others – also differ significantly from those in the Commission's previous unfairness cases.

The Commission commonly brings unfairness cases alleging failure to obtain express informed consent. These cases invariably involve conduct where the defendant has intentionally obscured the fact that consumers would be billed. Many of these cases involve unauthorized billing or cramming – the outright fraudulent use of payment information.[10] Other cases involve conduct just shy of complete fraud – the consumer may have agreed to one transaction but the defendant charges the consumer for additional, improperly disclosed items.[11] Under this scenario, the allegedly unfair act or practice injures consumers and does not provide economic value to consumers or competition. In such cases, the requirement to provide adequate disclosure itself does not cause significant harmful effects and can be satisfied at low cost.

However, the particular facts of this case differ in several respects from the above scenario. First, there is no evidence Apple intended to harm consumers by not disclosing the fifteen-minute window.[12] For example, when Apple began receiving

[10] *See*, *e.g.*, Complaint at 6, FTC v. Jesta Digital, LLC, Civ. No. 1:13-cv-01272 (D.D.C. Aug. 20, 2013) (alleging that "Jesta charged consumers who did not click on the subscribe button and charged consumers for products they did not order."); Complaint, FTC v. Wise Media, LLC, Civ. No. 1:13-CV-1234 (N.D. Ga. Apr. 16, 2013) (alleging that defendants charge consumers for purported services without consumers ever knowingly signing up for such services).

[11] Complaint at 15-16, FTC v. JAB Ventures, LLC, Civ No. CV08-04648 (RZx) (C.D. Cal. July 8, 2008) (alleging unauthorized billing when defendants charged consumers who had cancelled their enrollment or who had not been adequately informed about negative option features); FTC v. Crescent Publ'g Group, Inc., 129 F. Supp. 2d 311 (S.D.N.Y. 2001) (pornography website failing to disclose the point at which a "free tour" ended and a monthly membership would begin).

[12] By distinguishing the facts of this case from other unfairness cases brought by the Commission alleging the failure to obtain express informed consent, I do not imply that intent is a required element of the analysis. However, I think

complaints about children making unauthorized in-app purchases on their parents' iTunes accounts, the company took steps to address the problem.[13] In addition, Apple has an established relationship with its customers and its business model depends upon customer satisfaction and repeat business.

Second, rather than an unscrupulous or questionable practice, the nature of Apple's disclosures on its platform is an important attribute of Apple's platform that affects the demand for and consumer benefits derived from Apple devices and services. Disclosures made on the screen while consumers interact with mobile devices are a fundamental part of the user experience for products like mobile computing devices. It is well known that Apple invests considerable resources in its product design and functionality.[14] In streamlining disclosures on its platform and in its choice to integrate the fifteen-minute window into Apple users' experience on the platform, Apple has apparently determined that most consumers do not want to experience excessive disclosures or to be inconvenienced by having to enter their passwords every time they make a purchase.

The Commission has long recognized that in utilizing its authority to deem an act or practice as "unfair" it must undertake a much more rigorous analysis than is necessary under a deception theory.[15] As a former Bureau Director has noted, "the primary difference between full-blown unfairness analysis and deception analysis is that deception does not ask about offsetting benefits. Instead, it presumes that false or misleading statements either have no benefits, or that the injury they cause consumers

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drawing the distinction informs the discussion. Furthermore, I am unaware that the Commission has ever exercised its unfairness authority where it has alleged only that the defendant inadvertently charged consumers.

[13] *See* Chris Foresman, *Apple facing class-action lawsuit over kids' in-app purchases*, arstechnica, Apr. 15, 2011, http://arstechnica.com/apple/2011/04/apple-facing-class-action-lawsuit-over-kids-in-app-purchases/ ("After entering a password to purchase an app from the App Store, the password now has to be reentered in order to make any initial in-app purchases.").

[14] Nigel Hollis, *The Secret to Apple's Marketing Genius (Hint: It's Not Marketing)*, The Atlantic, July 11, 2011, http://www.theatlantic.com/business/archive/2011/07/the-secret-to-apples-marketing-genius-hint-its-not-marketing/241724/ (in discussing Apple's functionality, "[u]sing an Apple product feels so natural, so intuitive, so transparent, that sometimes, even people paid to know what makes products great completely miss the cause of their addiction to Apple products. It's the natural, intuitive transparency of the technology. The superlative product experience comes from an unusual combination of human and technical understanding, and it creates the foundation of all the other positive aspects of the brand."); Peter Eckert, *Dollars And Sense: The Business Case For Investing In UI Design*, Fast Company, Mar. 15, 2012, http://www.fastcodesign.com/1669283/dollars-and-sense-the-business-case-for-investing-in-ui-design ("As we have seen with Apple's success, creating products that offer as much simplicity as functionality drives market share and premium pricing."). *See also* Neil Hughes, *Apple's research & development costs ballooned 32% in 2013 to $4.5B*, Apple Insider, Oct. 30, 2013, http://appleinsider.com/articles/13/10/30/apples-research-development-costs-ballooned-32-in-2013-to-45b; Cliff Kuang, *The Six Pillars of Steve Jobs' Design Philosophy*, Fast Company, Nov. 7, 2011, http://www.fastcodesign.com/1665375/the-6-pillars-of-steve-jobss-design-philosophy.

[15] Int'l Harvester Co., 104 F.T.C. 949, 1070 (1984); *Beales' Unfairness Speech*, *supra* note 8, § III.

can be avoided by the company at very low cost."[16] It is also well established that one of the primary benefits of performing a cost-benefit analysis is to ensure that government action does more good than harm.[17] The discussion below explains why I believe the Commission's action today fails to satisfy the elements of the unfairness framework and thereby conclude that placing Apple under a twenty-year order in a marketplace in which consumer preferences and technology are rapidly changing is very likely to do more harm to consumers than it is to protect them.

I. The Evidence Does Not Support a Finding of Substantial Injury as Required by the Unfairness Analysis

Apple's choice to include the fifteen-minute window in its platform design, and its decision on how to disclose this window, resulted in harm to a small fraction of consumers. Any consumer harm is limited to parents who incurred in-app charges that would have been avoided had Apple instead designed its platform to provide specific disclosures about the fifteen-minute window for apps with in-app purchasing capability that are likely to be used by children. That harm to some consumers results from a design choice for a platform used by millions of users with disparate preferences is not surprising. The failure to provide perfect information to consumers will always result in "some" injury to consumers. The relevant inquiry is whether the injury to the subset of consumers is "substantial" as contemplated by the Commission's unfairness analysis.

Consumer injury may be established by demonstrating the allegedly unfair act or practice causes "a very severe harm to a small number"[18] of people or "a small harm to a large number of people."[19] While it is possible to demonstrate substantial injury occurred as a result of an act or practice causing a small harm to a large number of consumers, substantiality is analyzed relative to the magnitude of any offsetting benefits.[20] This is particularly critical when the allegedly unfair practice is not a fraudulent activity such as unauthorized billing or cramming, where there are no offsetting benefits.

By reasonable measures of the potential harms and benefits available to the Commission, the injury is relatively small and not necessarily substantial in this case.

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[16] *Beales' Unfairness Speech*, *supra* note 8, § III.
[17] Int'l Harvester, 104 F.T.C. at 1070.
[18] Int'l Harvester, 104 F.T.C. at 1064.
[19] *Unfairness Statement*, *supra* note 7, at n.12.
[20] *Beales' Unfairness Speech*, *supra* note 8, § III ("relative to the benefits, the injury may still be substantial" and "[t]o qualify as substantial, an injury must be real, and it must be large compared to any offsetting benefits.").

The complaint alleges Apple has received "at least tens of thousands of complaints related to unauthorized in-app charges by children"[21] while playing games acquired on Apple's platform, which supports all music, books, and applications purchased for use with Apple mobile devices (e.g., iPhone, iPad, iPod, hereinafter "iDevices"). Although "tens of thousands" sounds like a large number, the unfairness inquiry requires this number be evaluated in an appropriate context. Apple announced its 50 billionth app download in May 2013.[22] Even 200,000 complaints in 50 billion downloads would represent only four complaints in a million, which is quite a small fraction.

In addition, the complaint presents a few examples in which children made unauthorized in-app purchases that were relatively large, some greater than $500, and one bill as high as $2,600.[23] There is undoubtedly consumer harm in these instances, assuming the purchases are correctly attributed to the alleged failure to disclose, but again, in order to qualify as substantial, the harm "must be large compared to any offsetting benefits."[24]

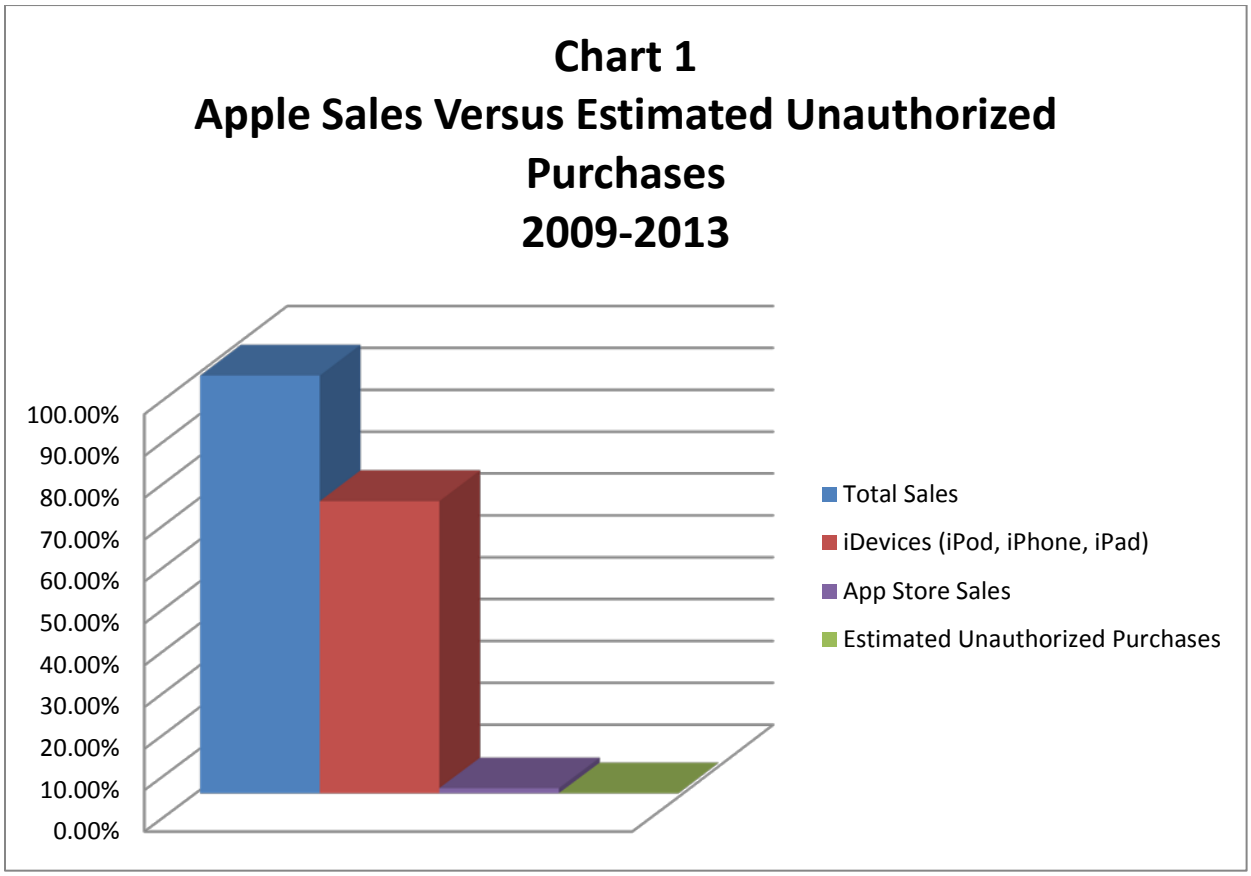
The relevant economic context required to understand substantiality of injury in this case includes the proportions of populations potentially harmed and benefitted by the failure to disclose product features in this case. A measure of harm that gives weight to both the number of consumers harmed and the size of the individual harms is the ratio of the value of unauthorized purchases to the total sales affected by the practice. We can construct such a measure as follows. The $32.5 million in consumer refunds required by the consent decree presumably relates in some way to the harm arising from Apple's disclosure practices. Recognizing that monetary amounts emerging from consent decrees are a product of compromise and an assessment of litigation risk, suppose that the value of unauthorized purchases is ten times higher than the negotiated settlement amount. This assumption gives a conservatively high estimate of $325 million in unauthorized purchases since the inception of the App Store.

The total sales affected by Apple's disclosure practices likely include not only the sale of apps and in-app purchases, but also the sale of iDevices. This is likely because the benefits from using apps and making in-app purchases are components of the stream of benefits generated by iDevices, and a customer's decision to purchase an iDevice will depend upon the stream of benefits derived from the device. Indeed, the

[21] *Apple Complaint*, *supra* note 1, at para. 24.
[22] Press Release, Apple, Inc., Apple's App Store Marks Historic 50 Billionth Download (May 16, 2013), *available at* http://www.apple.com/pr/library/2013/05/16Apples-App-Store-Marks-Historic-50-Billionth-Download.html.
[23] *Apple Complaint*, *supra* note 1, at para. 25-26.
[24] *Beales' Unfairness Speech*, *supra* note 8, § III.

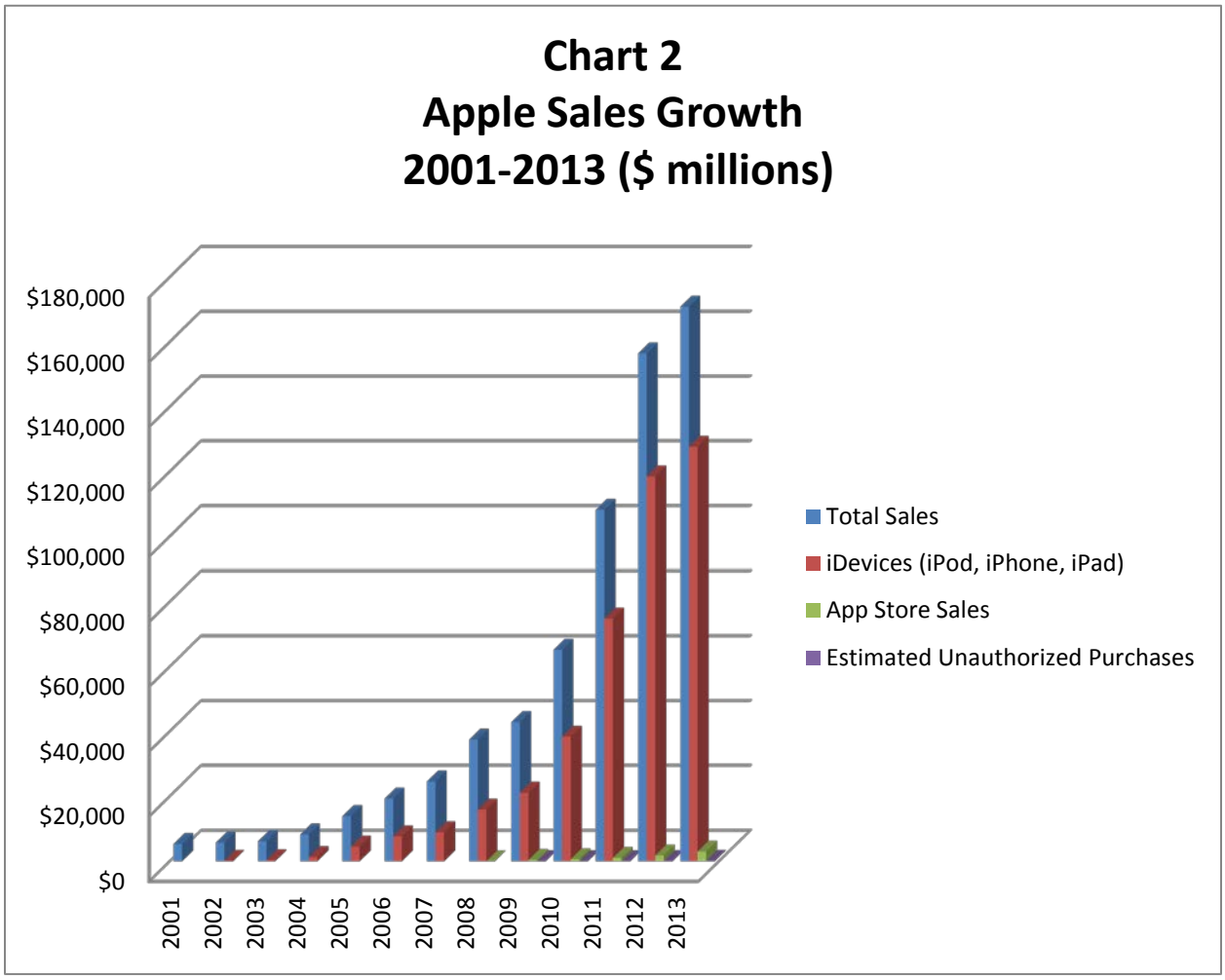
degree of integration across all components of Apple's platform is remarkably high, suggesting that Apple's disclosure practices may affect all Apple's sales. For completeness, Charts 1 and 2 below measure the estimated harm as a fraction of all three variants of Apple's sales – App Store sales, iDevice sales, and total sales. These data are available from Apple's Annual Reports and press releases.

Chart 1 shows that the estimated value of the harm is a miniscule fraction of both Apple total sales (about six one-hundredths of one percent) and iDevice sales (about eight one-hundredths of one percent) over the five-year period from the inception of the App Store to September 2013. This measure of harm, a conservatively high estimate, is also a relatively small fraction of App Store sales (about 4.6 percent).



Sources: Apple, Inc., Annual Reports for 2009-2013 (Form 10-K); Marin Perez, *Apple App Store A $1.2 Billion Business In 2009*, InformationWeek, June 11, 2008, *available at* http://www.informationweek.com/mobile/mobile-devices/apple-app-store-a-$12-billion-business-in-2009/d/d-id/1068794; *Apple Complaint*, *supra* note 1 (for the $32.5 million settlement amount).

Chart 2 illustrates the same relationship with respect to Apple sales growth over the last 13 years.



Sources: Same as Chart 1, plus Apple, Inc., Annual Reports for 2002-2008 (Form 10-K). Calculations assume the App Store sales and estimated unauthorized purchases grew at a constant percentage growth rate from 2009 through 2013.

Taking into account the full economic context of Apple's choice of disclosures relating to the fifteen-minute window undermines the conclusion that any consumer injury is substantial.

II. At Least Some of the Injury Could Be Reasonably Avoided by Consumers

The Unfairness Statement provides that the "injury must be one which consumers could not reasonably have avoided."[25] In explaining that requirement the

[25] *Unfairness Statement*, *supra* note 7, at 1074.

Commission noted, "[i]n some senses any injury can be avoided – for example, by hiring independent experts to test all products in advance, or by private legal actions for damages – but these courses may be too expensive to be practicable for individual consumers to pursue."[26] The complaint does not allege that the undisclosed fifteen-minute window is an unfair practice as to any consumer other than parents of children playing games likely to be played by children that have in-app purchasing capability.[27] In the instant case, it is very likely that most parents were able to reasonably avoid the potential for injury, and this avoidance required nothing as drastic as hiring an independent expert, but rather common sense and a modicum of diligence.

The harm to consumers contemplated in the complaint involves app functionality that changed over time. In the earliest timeframe, the harm occurred when a parent typed in their Apple password to download an app with in-app purchase capability, handed the Apple device to their child, and then unbeknownst to the parent, the child was able to make in-app purchases by pressing the "buy" button during the fifteen-minute window in which the password was cached. This was apparently an oversight on Apple's part. When it came to the company's attention, Apple implemented a password prompt for the first in-app purchase after download.[28]

During the later timeframe, after being handed the Apple device, a child again would press the "buy" button to make an in-app purchase. At this point, the child would have needed to turn the device back over to the parent for entry of the password. Alternatively, some children may have known their parent's password and entered it themselves. In either case, the fifteen-minute window was opened and additional in-app purchases could be made without further password prompts.

Under the first scenario, account holders received no password prompt for the first in-app purchase and thus the injury experienced by some consumers arguably may not have been reasonably avoidable. Because the opening of the fifteen-minute window *in this context* does not appear to be a product design feature, but rather an unintended oversight, I will focus my attention upon the harm experienced by consumers in the latter scenario and discuss their ability to reasonably avoid it.

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[26] *Unfairness Statement*, *supra* note 7, at n.19.

[27] Indeed, there are many financial, banking, and retail apps and websites that allow consumers to conduct a series of transactions after entering a password only once. These services usually only require re-entry of a password after a certain amount of time has elapsed, or the session expires because of inactivity on the user's part. It is doubtful that the Commission would bring an unfairness case because these services do not disclose this window.

[28] *See* Foresman, *supra* note 13.

Irrespective of the existence of the fifteen-minute window, a user can only make an in-app purchase by pressing a "buy" button while engaging with the app. In other words, the user must decide to make an in-app purchase. To execute the first in-app purchase, the user must enter a password. The fifteen-minute window eliminates the second step of verification – entering a password – only *after* the user has made the first in-app purchase by clicking the "buy" button and entering the password.

By entering their password into the Apple device – an action that is performed in response to a request for permission – parents were effectively put on notice that they were authorizing a transaction.[29] Although the complaint alleges that the fifteen-minute window was not expressly disclosed to parents, regular users of Apple's platform become familiar with the opportunity to make purchases without entering a password every time.[30] Even if some parents were not familiar with the fifteen-minute window, the requirement to re-enter their password to authorize a transaction arguably triggered some obligation for them to investigate further, rather than just to hand the device back to the child without further inquiry.[31]

III. Any Consumer Injury Caused by Apple's Platform is Outweighed by Countervailing Benefits to Consumers and Competition

Assuming for the moment there is at least some harm that consumers cannot reasonably avoid, the question turns to whether the harms are substantial relative to any benefits to competition or consumers attributable to the conduct. In performing this balancing, the Commission must also take "account of the various costs that a remedy would entail. These include not only the costs to the parties directly before the agency, but also the burdens on society in general in the form of increased paperwork, increased regulatory burdens on the flow of information, reduced incentives to innovation and capital formation, and similar matters."[32] I now turn to that question.

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[29] Furthermore, Apple sends an email receipt to the iTunes account holder after a purchase has been made in the either the iTunes or App Store. *See e.g.*, http://www.apple.com/privacy/.

[30] To the extent that users read the Apple Terms and Conditions when they opened their iTunes accounts, consumer injury would also have been avoided. The Terms and Conditions explain the fifteen-minute window and other aspects of how Apple's platform works, including the App Store. It appears that Apple has included these explanations since at least June 2011. *See* http://www.apple.com/legal/internet-services/itunes/us/terms.html#SALE (Apple's current Terms and Conditions) and http://www.proandcontracts.com/wp-content/uploads/2011/06/2011.06.09-iTunes-Terms-and-Conditions-June-2011-Update-with-Highlighting.pdf (cached copy of what appears to be its Terms and Conditions as of June 2011).

[31] The Terms and Conditions also explain how to use the parental control settings to control how the App Store works. *See* http://support.apple.com/kb/HT1904 and http://support.apple.com/kb/HT4213. These parental control settings allow users to disable in-app purchasing capability as well as establish settings that require a password each time a purchase is made, thereby eliminating the fifteen-minute window.

[32] *Unfairness Statement*, *supra* note 7, at 1073-74.

A. Apple's Platform as a Benefit to Consumers and Competition

Unfairness analysis requires an evaluation and comparison of the benefits and costs of Apple's decision not to increase or enhance its disclosure of how Apple's platform works, including the fifteen-minute window. The fifteen-minute window is a *feature* of Apple's platform that applies to purchases of songs, books, apps, and in-app purchases. This feature has long been a part of the iTunes Store for downloading music, and regular users of iTunes apparently value it. In the context here, disclosure is perhaps better thought of as a product attribute—*guidance*—that Apple provides to the customer through on-screen and other explanations of how to use Apple's platform.[33]

In deciding what guidance to provide and how to provide it, firms face two important issues. First, since it is generally not possible to customize guidance for every individual customer, the optimal guidance inevitably balances the needs of different customers. In drawing this balance, the potential for harm from misinterpretation is likely important in deciding which customer on the sophistication spectrum might represent the least common denominator for directing the guidance. For any given degree of guidance, some customers will get it immediately, while others will have to work harder. If the potential for harm is very large, e.g., harm from a drug overdose, then both the firm and consumers want obvious, strong disclosures about dosage, and perhaps other steps like childproof caps. If the potential for harm is small, then strong guidance (or caps that are hard to open in the drug context) may make it more costly for consumers to use the product. Platform designers clearly face such tradeoffs in their decision-making regarding guidance and disclosures. Apple clearly faces the same tradeoff with respect to its decisions concerning the fifteen-minute window. This tradeoff is relevant for evaluating the benefit-cost test at the core of unfairness analysis.

Second, because it is difficult to anticipate the full set of issues that might benefit from guidance of various types, the firm must decide how much time to spend researching, discovering, and potentially fixing possible issues *ex ante* versus finding and fixing issues as they arise. With complex technology products such as computing platforms, firms generally find and address numerous problems as experience is gained

[33] Compare the disclosure contemplated here with disclosure in the mortgage context, for example. Here, the disclosure itself – or the guidance offered while the user is interacting with the product – is an intrinsic part of the product's value. Indeed, Apple's business model is built on offering an integrated platform with a clean design that customers find intuitive and easy to use. The way the platform is presented, including disclosures or guidance offered during use, is a critically important component of value. In the mortgage context, the disclosures signed at closing are not a significant component of the value of the mortgage.

with the product. Virtually all software evolves this way, for example. This tradeoff—between time spent perfecting a platform up front versus solving problems as they arise—is also relevant for evaluating unfairness.

Apple presumably weighs the costs and benefits to Apple of different ways to provide guidance. In doing so, Apple must consider: (i) the benefit to Apple of greater sales of mobile devices, music, books, apps, and in-app components to customers who benefit from the additional guidance and make more purchases; (ii) the cost to Apple of fewer sales of mobile devices, music, books, apps, and in-app components by customers who find that more real-time guidance hampers their experience; and (iii) the cost to Apple of developing and implementing more guidance. In weighing (i) and (ii), Apple is particularly concerned about the effects on the sales of mobile devices that use Apple's platform, as they constitute the bulk of Apple's business, as indicated in Charts 1 and 2.[34]

The relevant universe for assessing unfairness of Apple's guidance provision, including disclosures relating to the fifteen-minute window, is the set of users to whom the guidance is directed. This includes all users of Apple's platform who might make online purchases through the platform.

The ratio of estimated unauthorized purchases in this case to all purchases made by users of Apple's platform is miniscule, as Charts 1 and 2 illustrate. This fact, by itself, does not establish that the benefits of Apple's decision to forgo additional guidance of the type required by the consent order outweigh its costs. However, the remarkably low ratio does provide perspective on the following question: How much would the average non-cancelling customer need to be harmed by a requirement of additional guidance in order to outweigh the benefit of preventing harm to other consumers? Suppose the fraction of customers that would benefit from additional guidance is approximated by the ratio of estimated unauthorized purchases to total sales of iDevices. The analysis in Charts 1 and 2 indicates that estimated unauthorized purchases have been about 0.08 percent of iDevice-related sales since the App Store was launched. Suppose that customers that make unauthorized purchases cancel them and seek a refund. Suppose also that the time cost involved in seeking a refund return is $11.95.[35] Then, if the average harm to non-cancelling customers from additional

[34] In 2012, sales of the iPhone, iPad, and iPod accounted for over 76 percent of Apple's $157 billion in sales. *See* Apple, Inc., Annual Report (Form 10-K), at 73 (Oct. 31, 2012), *available at* http://files.shareholder.com/downloads/AAPL/2661211346x0xS1193125-12-444068/320193/filing.pdf.

[35] The $11.95 figure represents the seasonally adjust average earnings per half hour across all employees on private nonfarm payrolls, as reported by the Bureau of Labor and Statistics in May 2013. See http://www.bls.gov/news.release/empsit.t19.htm for the most recent report. The assumption is that customers that

guidance sufficient to prevent cancellations is more than about a penny per transaction, the additional guidance will be counter-productive.[36]

To be clear, the sales of iDevices are not an estimate of consumer benefits but rather they approximate the total universe of economic activity implicated by the Commission's consent order. Similarly, estimated unauthorized purchases merely approximate the total universe of consumers potentially harmed by Apple's practices. The harm from Apple's disclosure policy is limited to users that actually make unauthorized purchases. However, the potential benefits from Apple's disclosure choices are available to the entire set of iDevice users because these are the consumers capable of purchasing apps and making in-app purchases. The disparity in the relative magnitudes of these universes of potential harms and benefits suggests, at a minimum, that further analysis is required before the Commission can conclude that it has satisfied its burden of demonstrating that any consumer injury arising from Apple's allegedly unfair acts or practices exceeds the countervailing benefits to consumers and competition. [37]

Nonetheless, the Commission effectively rejects an analysis of tradeoffs between the benefits of additional guidance and potential harm to some consumers or to competition from mandating guidance by assuming that "the burden, if any, to users who have never had unauthorized charges for in-app purchases, or to Apple, from the provision of this additional information is *de minimis*" and that any mandated disclosure would not "detract in any material way from a streamlined and seamless user experience." I respectfully disagree. These assumptions adopt too cramped a view of consumer benefits under the Unfairness Statement and, without more rigorous analysis to justify their application, are insufficient to establish the Commission's burden.

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asked for returns were reimbursed for the charges as Apple attests, and that obtaining a reimbursement takes half an hour.

[36] Let Y be the harm to non-cancelling customers from additional guidance sufficient to prevent cancellations. This harm will just equal the benefit of avoiding cancellations if (% Cancelling) x (Refund Time Cost) - (% Not Cancelling) x Y = 0. Assuming (% Cancelling) is .0008, (Refund Time Cost) is $11.95, and (% Not Cancelling) is .9992, solving for Y gives Y = $.009. In other words, if the harm to non-cancelling customers from additional guidance is more than roughly one cent for each transaction, then then the costs of the additional guidance will outweigh the benefits.

[37] Commissioner Ohlhausen suggests that our unfairness analysis compares inappropriately the injury caused by Apple's lack of clear disclosure with the benefits of Apple's disclosure policy to the entire ecosystem. She argues that this approach "skew[s] the balancing test for unfairness and improperly compare[s] injury 'oranges' from an individual practice with overall 'Apple' ecosystem benefits." Statement of Commissioner Ohlhausen at 3. For the reasons discussed, this analysis misses the point.

B. The Costs and Benefits to Consumers and Competition of Apple's Product Design and Disclosure Choices

To justify a finding of unfairness, the Commission must demonstrate the allegedly unlawful conduct results in net consumer injury. This requirement, in turn, logically implies the Commission must demonstrate Apple's chosen levels of guidance are less than optimal because consumers would benefit from additional disclosure. There is a considerable economic literature on this subject that sheds light upon the conditions under which one might reasonably expect private disclosure levels to result in net consumer harm.[38]

To support the complaint and consent order the Commission issues today requires evidence sufficient to support a reason to believe that Apple will undersupply guidance about its platform relative to the socially optimal level. Economic theory teaches that such a showing would require evidence that "marginal" customers – the marginal consumer is the customer that is just indifferent between making the purchase or not at the current price – would benefit *less* from the consent order than the "inframarginal" customers who are willing to pay significantly more for the product than the current price and therefore would purchase the product irrespective of a small adjustment in an attribute. Nobel Laureate Michael Spence points out in his seminal work on the subject that this analysis generally requires information on the valuations of inframarginal consumers.[39] Here, marginal consumers are those who would not have made in-app purchases if Apple would have disclosed the fifteen-minute window. Inframarginal consumers are those Apple customers who would not change their purchasing behavior in response to a change in Apple's disclosures.

Staff has not conducted a survey or any other analysis that might ascertain the effects of the consent order upon consumers. The Commission should not support a case that alleges that Apple has underprovided disclosure without establishing this through rigorous analysis demonstrating – whether qualitatively or quantitatively – that the costs to consumers from Apple's disclosure decisions have outweighed benefits to consumers and the competitive process. The absence of this sort of rigorous analysis is made more troublesome in the context of a platform with countless product attributes and where significant consumer benefits are intuitively obvious and borne out by data

[38] Disclosure in this context is analogous to a quality decision that may affect different customers differently. A. Michael Spence, *Monopoly, Quality and Regulation*, 6 BELL J. OF ECON. 417-29 (1975); Eytan Sheshinski, *Price, Quality and Quantity Regulation in Monopoly Situations*, 43 ECONOMICA 127-37 (1976). The analysis of this issue is also explained in JEAN TIROLE, THE THEORY OF INDUSTRIAL ORGANIZATION § 2.2.1 (MIT Press 1988).
[39] Spence, *supra* note 38.

available to the Commission. We cannot say with certainty whether the average consumer would benefit more or less than the marginal consumer from additional disclosure without empirical evidence. This evidence might come from a study of how customers react to different disclosures. However, given the likelihood that the average benefit of more disclosure to unaffected customers is less than the benefit to affected customers who are likely to be customers closer to the margin, I am inclined to believe that Apple has more than enough incentive to disclose.[40]

C. Other Considerations When Examining the Costs and Benefits of Platforms and other Multi-Attribute Products

Unfairness analysis also requires the Commission to consider the impact of contemplated remedies or changes in the incentives to innovate new product features upon consumers and competition.[41] I close by discussing some additional dimensions of an economic analysis of the costs and benefits of product disclosures in the context of complicated products and platforms with many attributes, like Apple's platform, where such disclosures are a critical component of the user experience and have considerable impact upon the value consumers derive from the product.

For complicated products – for example, a web-based platform for purchasing and interacting with potentially millions of items using a mobile device – there are many things that can negatively impact user experience. The number of potential issues for products that involve hardware, software, and a human interface is large. This is the nature of technology. When designing a complex product, it is prohibitively costly to try to anticipate *all* the things that might go wrong. Indeed, it is very likely impossible. Even when potential problems are found, it is sometimes hard to come up with solutions that that one can be confident will fix the problem. Sometimes proposed solutions make it worse. In deciding how to allocate its scarce resources, the creator of a complex product weighs the tradeoffs between (i) researching and testing to identify and determine whether to fix potential problems in advance, versus (ii) waiting to see

[40] This argument does not, as Chairwoman Ramirez and Commissioner Brill suggest, "*presuppose* that a sufficient number of Apple customers will respond to the lack of adequate information by leaving Apple for other companies." Statement of Chairwoman Ramirez and Commissioner Brill at 5-6. Nor does the economic logic require any belief about the magnitude of switching costs. Rather, the analysis relies only upon the standard economic assumption that Apple chooses disclosure to maximize shareholder value, weighing how customers react to different disclosure policies. If Apple behaves this way, the average benefit of more disclosure to unaffected customers is less than the benefit to affected customers, and affected customers are more likely to be on the margin than unaffected customers, then economic theory implies that Apple is likely to have more than enough incentive to disclose.

[41] *Unfairness Statement*, *supra* note 7, at 1073-74.

what problems arise after the product hits the marketplace and issuing desirable fixes on an ongoing basis. We observe the latter strategy in action for virtually all software.

The relevant analysis of benefits and costs for allegedly unfair omissions requires weighing of the benefits and costs of discovering and fixing the issue that arose *in advance* versus the benefits and costs of finding the problem and fixing it *ex post*. These considerations fit comfortably within the unfairness framework laid out by the Commission.[42] The Commission also takes account of the various costs that a remedy would entail. These include not only the costs to the parties directly before the agency, but also the burdens on society in general in the form of increased regulatory burdens on the flow of information, reduced incentives to innovate and invest capital, and other social costs.[43]

Here, Apple did not anticipate the problems customers would have with children making in-app purchases that parents did not expect. When the problem arose in late 2010, press reports indicate that Apple developed a strategy for addressing the problem in a way that it believed made sense, and it also refunded customers that reported unintended purchases.[44] This is precisely the efficient strategy described above when complex products like Apple's platform develop problems that are difficult to anticipate and fix in advance. Establishing that it is "unfair" unless a firm anticipates and fixes such problems in advance – precisely what the Commission's complaint and consent order establishes today – is likely to impose significant costs in the context of complicated products with countless product attributes. These costs will be passed on to consumers and threaten consumer harm that is likely to dwarf the magnitude of consumer injury contemplated by the complaint.

This investigation began largely because of complaints that arose when in-app purchases were first introduced into the marketplace and Apple had not had enough experience with the platform to recognize how parents and children would use the App Store. In late 2010, complaints began to emerge. In March 2011, Apple first altered its platform to address complaints about unauthorized in-app purchases. It is not unreasonable to surmise that as Apple has modified its policies based on experience, and customers have learned more about how to use the platform, unauthorized in-app purchases by children have most likely steadily declined.

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[42] The Commission must take "account of the various costs that a remedy would entail" including "reduced incentives to innovation and capital formation, and similar matters." *Unfairness Statement*, *supra* note 7, at 1073-74.
[43] *Unfairness Statement*, *supra* note 7, at 1073-74.
[44] *See* Foresman, *supra* note 13.

The Commission has no foundation upon which to base a reasonable belief that consumers would be made better off if Apple modified its disclosures to confirm to the parameters of the consent order. Given the absence of such evidence, enforcement action here is neither warranted nor in consumers' best interest.