

How to Economize Consumer Protection

Michael R. Baye and Joshua D. Wright

Courts, private parties, and federal agencies extensively rely upon economists to help evaluate the merits of, and potential harm from, alleged violations of the Clayton Act, the Sherman Act and, more generally, business practices that are alleged to run afoul of antitrust law. At their core, the U.S. antitrust laws are about protecting consumers from harm stemming from abuses of competition and the competitive process. For instance, at the Federal Trade Commission—which has dual missions of consumer protection and competition—the deployment of staff economists and the use of economic analysis is standard practice on the competition side of the house. Bureau of Competition staff lawyers and the economists in the Bureau of Economics commonly work together to use economic analysis to identify, analyze, and prosecute cases. These analyses often involve statistical and econometric techniques that facilitate decision-making based on scientific evidence of likely harm to competition or consumers.

In contrast, the typical approach to a consumer protection matter relies upon a combination of surveys and subjective opinions to establish the facts relevant to a consumer protection dispute—for example, the existence and magnitude of consumer harm arising from an alleged inadequate disclosure. This is true for both deception and unfairness cases. The FTC’s deception cases address instances where a material statement, practice, or omission may mislead reasonable consumers. Unfairness cases, meanwhile, target other instances where a defendant’s behavior may cause substantial consumer harm that was not reasonably avoidable by consumers and not outweighed by attendant benefits. Both sets of cases lend themselves to valuable input from economists—unfairness cases, in fact, require a cost-benefit analysis.

Even in deception or unfairness cases where the FTC ties payments for consumer restitution or disgorgement to ill-gotten gains—i.e., to actual consumer harm¹—evidence is often limited to subjective survey evidence rather than objective economic evidence that the practice harmed consumers in the actual marketplace.² While plaintiffs, defendants, and parties under investigation utilize economists with increasing frequency, it remains relatively uncommon to use econom-

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¹ See, e.g., *FTC v. Gem Merch. Corp.*, 87 F.3d 466, 470 (11th Cir. 1996) (“We conclude that section 13(b) permits a district court to order a defendant to disgorge illegally obtained funds.”); *FTC v. BurnLounge, Inc.*, 584 F. App’x 315 (9th Cir. 2014) (affirming in part and remanding in part the disgorgement award for clarification of the calculation of consumer harm attributable to certain packages and fees); *FTC v. Wells*, 385 F. App’x 712, 713 (9th Cir. 2010) (“The FTC may seek full restitution from any individual who caused consumer harm through unfair practices.” (citing *FTC v. Pantron I Corp.*, 33 F.3d 1088, 1101–04 (9th Cir.1994)).

² We note that, in practice, the FTC’s monetary remedies are limited to the disgorgement of “ill-gotten gains” or the amount of restitution required to restore consumers to the welfare they would have enjoyed but-for the deceptive or fraudulent act. See *supra* note 1. When a product is *purely* a sham (e.g., snake oil), it hardly takes an economist to determine that every penny the seller collected was “ill-gotten” and that full restitution requires returning all of monies received back to consumers. As discussed below, many consumer protection cases are more complex and require more sophisticated economic analysis to determine (a) how many consumers were deceived by a particular business practice, and (b) how much of the money collected by the seller must be returned to consumers to make them whole.

ic tools to scientifically test whether the alleged business practice actually impacted the behavior of consumers or to obtain a measure of consumer harm linked to the use of the practice.

This is especially surprising because, on the competition side of the house within the FTC, the practice of using economic tools in the ways described above is relatively common. Of course, the common use of these tools in antitrust arises at least in part because the court requires that estimates of damages be linked to an economic theory of harm. Even at the FTC, which heavily relies upon analyses of the Bureau of Economics to help guide antitrust enforcement decisions, it is not unusual for a consumer protection case to be investigated, settled, or even litigated without any significant input from economists.

One goal of this article is to show how economics can be used in consumer protection matters to help prove or disprove a claim that a business practice adversely impacted consumers, and to shed light on the economic merits of litigating versus settling cases. In our experience, many seemingly benign consumer protection settlements induce asymmetries in the marketplace that put the settling firm at a competitive disadvantage. Regardless of whether one's goal is to protect consumers or defend one's client, doing so requires accounting for these effects. More broadly, economics provides tools which, when properly utilized, can help improve the allocation of scarce resources—at agencies and beyond—to better serve and protect consumers and competition.

Consumer protection agencies, plaintiffs, and defendants might also take note that courts are increasingly scrutinizing the more common, non-economic proof offered in consumer protection litigation. For example, in *LabMD* the court found the harm the FTC identified was “only speculative,”³ and in *D-Link* the court found it was “just as possible that [D-Link’s] devices are not likely to substantially harm consumers,” noting that the FTC’s allegations were “wholly conclusory.”⁴ Increasingly, courts have expressed skepticism about presuming harm in the consumer protection context and asked for more from the FTC to satisfy its burden of proof. Economic analysis and tools can help satisfy these demands by all parties to help make the required demonstrations of harm or lack thereof. Of course, they can also be used before litigation to help discover potential weaknesses in cases and address them—and they may be used by defendants in settlement discussions or in court to ensure that efficient and beneficial business practices are not stifled or chilled based upon the subjective perceptions of well-intentioned lawyers, agency officials, or judges.

In this article, we identify some reasons why economics has often been an afterthought in consumer protection matters, why this is changing, and some of the adverse effects that arise from the gap between the use of economists in antitrust and consumer protection. We then provide a handful of examples illustrating how economic analysis can be used to inform decisions and help ensure that well-intentioned efforts by plaintiffs to protect consumers do precisely that.

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³ *LabMD, Inc. v. FTC*, 678 F. App'x 816, 820–21 (11th Cir. 2016) (“The FTC’s ruling did not point to any tangible harm to any consumer, because there is no evidence that any consumer suffered a harm such as identify theft or physical harm. Instead, the FTC found actual harm here due to the sole fact of the 1718 file’s [which contained 1,718 pages of sensitive personal information for roughly 9,300 patients] unauthorized disclosure. The FTC also found that consumers suffered a ‘privacy harm’ that may have affected their reputations or emotions Alternatively, the FTC found that the unauthorized exposure of the 1718 file was likely to cause substantial injury.”).

⁴ *FTC v. D-Link Sys., Inc.*, No. 3:17-cv-00039-JD, 2017 WL 4150873, at *5 (N.D. Cal. Sept. 19, 2017) (“The FTC does not identify a single incident where a consumer’s financial, medical or other sensitive personal information has been accessed, exposed or misused in any way, or whose IP camera has been compromised by unauthorized parties, or who has suffered any harm or even simple annoyance and inconvenience from the alleged security flaws[.]”).

The Underutilization of Economics in Consumer Protection Cases: Causes and Effects

The genesis of economics' relative absence in consumer protection enforcement is understandable. In earlier years, consumer protection enforcement focused heavily upon clear fraud cases. Understanding that fraudulent conduct (involving a sham product, say) offers zero benefit to consumers hardly requires an advanced economic degree. For example, prohibiting a seller from making money purely as the result of obviously false claims about its brand of "snake oil" will reduce the number of unwanted and uneconomic purchases, while simultaneously allowing producers of legitimate products to make credible claims and succeed. In these clear-cut cases, one hardly requires sophisticated economic analysis to determine "ill-gotten gains" or the amount of restitution to make consumers whole—the amount of ill-gotten gains from sales of an obviously sham product (i.e., one that provides no value to the consumer) is the entirety of the amount collected by the seller.⁵

In traditional unfairness cases, the FTC initially challenged only behavior that was clearly harmful to consumers and lacked any justifiable benefits. As with fraud, the challenged conduct in such cases was more often than not clearly harmful, such as documented fraudulent charges.⁶ Rigorous cost-benefit analysis was generally not necessary to conclude the conduct at issue made consumers worse off.⁷

The FTC's unfairness enforcement, however, is no longer confined to such clear-cut cases. Rather, enforcement based upon unfairness authority by the FTC—and others, like state attorneys general—has expanded to include cases where an assessment of tradeoffs is critical.⁸ For example, enforcement challenges to disclosure and product design decisions that offer substantial benefits are increasingly common. Approaching these and similar business practices as a traditional fraud case poses a serious risk of creating unsound policy and reducing consumer welfare.⁹

⁵ It is important here to note the difference between a finding by the FTC of deception and its ability to obtain monetary redress through disgorgement or restitution. The FTC can issue a cease and desist order to prevent firms from lying even if there is no real harm—and this may be a good thing—but obtaining disgorgement requires more. Namely, disgorgement requires some demonstration of ill-gotten gains (i.e., consumer harm) arising from the defendant's conduct, and "full restitution" requires the FTC collect no more than this amount. See *supra* note 1; Dissenting Statement of Commissioner Joshua D. Wright, Cardinal Health, Inc., FTC File No. 101-0006 (Apr. 17, 2015), <https://www.ftc.gov/public-statements/2015/04/dissenting-statement-commissioner-joshua-d-wright-cardinal-health-inc>.

⁶ See, e.g., Complaint for Permanent Injunction & Other Equitable Relief at 6, FTC v. Jesta Digital, LLC, 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.").

⁷ In addition, there was traditionally some amount of internal hostility toward integrating economists into consumer protection cases more closely. See Paul A. Paulter, *A History of the FTC's Bureau of Economics* 109 n.393 (AAI Working Paper No. 1503, 2015), https://www.antitrustinstitute.org/sites/default/files/FTC%20Bureau%20of%20Economics%20History_0.pdf ("The 'economist as subordinate' view was explicit and evident in the latter 1990s on the consumer protection side of the agency, when certain attorney managers would not allow economist participation in meetings with the respondents or with outside third-parties.").

⁸ See, e.g., Complaint, Apple, Inc., FTC No. 112-3108 (Jan. 15, 2014), <https://www.ftc.gov/sites/default/files/documents/cases/140115applecmpt.pdf>. As developed below, ignoring the tradeoffs in cases like Apple iTunes can lead to FTC actions that condemn conduct whose harms are greatly outweighed by their benefits. See *infra* Section II.B; Dissenting Statement of Commissioner Joshua D. Wright, Apple Inc., FTC File No. 112-3108 (Jan. 15, 2014), https://www.ftc.gov/sites/default/files/documents/cases/140115applestatementwright_0.pdf [hereinafter Wright Apple Dissent].

⁹ See Elise M. Nelson & Joshua D. Wright, *Judicial Cost-Benefit Analysis Meets Economics: Evidence from State Unfair and Deceptive Trade Practices Laws*, 81 ANTITRUST L.J. 997 (2017) (measuring how economists versus courts analyzed unfairness claims under federal and state law and explaining the "primary reason to require cost-benefit analysis as a prerequisite to finding business conduct unlawful is to ensure consumer protection enforcement does not chill conduct that makes consumers better off even if there is some small harm experienced by consumers").

As challenges to product design decisions and disclosure practices of digital platforms become increasingly common, the onus should shift to the FTC to properly assess the effects of modern business conduct.¹⁰

In many cases involving the disgorgement of “ill-gotten gains” resulting from inadequate disclosures or other deceptive practices, plaintiffs completely sidestep the issue of whether any real consumers’ decisions were actually impacted by the alleged conduct, and do not rigorously link the alleged wrongdoing to consumer harm, restitution, or disgorgement.

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¹⁰ See Joshua D. Wright, *The FTC and Privacy Regulation: The Missing Role of Economics*, Geo. Mason Univ. L. and Econ. Ctr.: Briefing on Nomi, Spokeo, and Privacy Harms (Nov. 12, 2015), http://masonlec.org/site/rte_uploads/files/Wright_PRIVACYSPEECH_FINALv2_PRINT.pdf.

¹¹ FTC Policy Statement on Deception, *appended to Cliffdale Assocs.*, 103 F.T.C. 110, 174 (1984), <https://www.ftc.gov/public-statements/1983/10/ftc-policy-statement-deception>.

¹² See Separate Statement of Commissioners Maureen K. Ohlhausen and Joshua D. Wright, *Federal Trade Commission v. Cephalon, Inc.* at 2 (May 28, 2015), https://www.ftc.gov/system/files/documents/public_statements/645501/150528cephalonohlhausenwright1.pdf (“As we explained in our dissents in the recent *Cardinal Health* matter, following the withdrawal of the Policy Statement in 2012, firms subject to our jurisdiction have no meaningful guidance on when they will be forced to disgorge their profits[.]”); Maureen K. Ohlhausen, Commissioner, Fed. Trade Comm’n, Dollars, Doctrine, and Damage Control, How Disgorgement Affects the FTC’s Antitrust Mission 6 (Apr. 20, 2016), https://www.ftc.gov/system/files/documents/public_statements/945623/160420dollarsdoctrinespeech.pdf (“In [withdrawing the statement on disgorgement], the Commission claimed that ‘existing law . . . provides sufficient guidance on the use of monetary equitable remedies’ but the withdrawal statement did not discuss the law that apparently provides such direction.” (quoting Statement of the Commission Regarding Withdrawal of the Commission’s Policy Statement on Monetary Equitable Remedies in Competition Cases 1 (July 31, 2012), <https://www.ftc.gov/public-statements/2012/07/statement-commission-regarding-withdrawal-commissions-policy-statement>)).

¹³ See, e.g., *Kraft Inc. v. FTC*, 970 F.2d 311, 319, 324 (7th Cir. 1992) (noting that the FTC deemed that “Kraft’s consumer surveys were insufficient to rebut [the FTC’s] inference and in particular criticize[d] Kraft’s survey methodology because it offered limited response options” to respondents); see also James C. Cooper & Joshua D. Wright, *The Missing Role of Economics in FTC Privacy Policy*, in *CAMBRIDGE HANDBOOK OF CONSUMER PRIVACY* (Jules Polonetsky, Evan Selinger & Omer Tene eds.) (forthcoming 2018).

¹⁴ Cooper & Wright, *supra* note 13; 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 30, 2003), <http://www.ftc.gov/public-statements/2003/05/ftcs-use-unfairness-authority-its-rise-fall-and-resurrection> (“[T]he 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 can be avoided by the company at very low cost. In other words, deception analysis essentially creates a shortcut, assuming that, when a material falsehood exists, the practice would not pass the full benefit/cost analysis of unfairness, because there are rarely, if ever, countervailing benefits to deception.”).

¹⁵ See J. Howard Beales, III & Timothy J. Muris, *FTC Consumer Protection at 100: 1970s Redux or Protecting Markets to Protect Consumers?*, 83 GEO. WASH. L. REV. 2157, 2204 (2015) (discussing the FTC’s failure to follow the standard used in its Policy Statement in deception cases); Cooper & Wright, *supra* note 13.

Underutilization of economic analysis can also impact consent agreements and their negotiation. Untethering consumer protection from economic analysis increases the likelihood that case decisions—whether to abandon, settle, or litigate—are based in part on speculative or subjective opinions where scientific or economic evidence could result in a more informed view and provide unique insights compared to other forms of fact-finding. Providing rigorous economic evidence also increases the likelihood that both the plaintiff and the defendant confront the relevant issues. Engagement with economic evidence increases the likelihood that consent agreements are closely tied to the underlying issues and hence proportionate to the actual effects on consumers. It also allows the Commission to focus on obtaining remedies that are most likely to benefit consumers and least likely to have unintended, adverse consequences on competition.

Expanding Use of Economic Analysis in Consumer Protection Cases

In this section, we provide a detailed explanation of how economic tools and insights can help the FTC to identify and prosecute deception, or for defendants to successfully rebut such claims. It is important to note that, while it may be possible to establish that a practice is misleading or deceptive without economic analysis, a reasonable estimate of consumer harm is required in order to extract payments by the perpetrator (e.g., restitution or disgorgement of ill-gotten gains). We highlight several other ways in which economics can help the Commission and those affected by its decisions to make better-informed decisions, including by identifying and analyzing unfairness, ensuring that actions are in the public interest, quantifying the “risk” or “likelihood” of consumer harm, conducting relevant but-for analysis, and enhancing agency resource allocation.

Identifying Deception. According to the FTC’s Policy Statement on Deception, “Certain elements undergird all deception cases. . . . *First*, there must be a representation, omission or practice that is likely to mislead the consumer. . . . *Second*, [FTC Staff] examine the practice from the perspective of a consumer acting reasonably in the circumstances. . . . *Third*, the representation, omission, or practice must be a ‘material’ one.”¹⁶ The typical starting point for assessing consumer protection claims—particularly for allegations of deception or inadequate disclosures—is to use survey techniques in an attempt to determine whether a “significant minority” of “reasonable consumers” might fail to understand material terms, or otherwise that the “net impression” of the ad is to deceive consumers.

While survey methods (if properly conducted) may provide context for the first element of deception cases, they can be severely limited in their application to the second and third elements. Surveys, by their very nature, are unable to measure the actual circumstances of consumers making choices in the face of deceptive practices. Survey results can only imperfectly replicate the true economic incentives and informational context of the consumers whose choices are at issue. The behavior of survey respondents may significantly differ from the choices made in the actual marketplace by “reasonable consumers.”

Furthermore, these same limitations of surveys may hamper the ability of a researcher to infer whether an act or practice is “material” in the context that actual consumers make decisions—that is, whether it “is likely to affect the consumer’s conduct or decision with regard to a product or service.”¹⁷ The mere fact that information was inadequately disclosed, for instance, does not imply

¹⁶ FTC Policy Statement on Deception, 103 F.T.C. at 174 (1984).

¹⁷ *Id.* Note that consumers do not make purchase decisions in a “vacuum,” and survey data may fail to capture information that the typical consumer obtains prior to purchasing a product or service.

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that all or even most consumers were harmed; indeed, they might have made the same choices or decisions in a “but-for world” with better information.¹⁸ Likewise, although one may attempt to use a survey to infer the actions of consumers (or their understanding of a disclosure), the survey setting is a very poor substitute for analysis of data on the actual choices that consumers made when acting upon the information they received from an alleged deceptive act or practice in their regular daily lives. Because surveys measure choices (or the understanding) of survey respondents rather than actual consumers (who, unlike survey respondents, condition purchase decisions on the actual cost they would have to pay for the good or service and ancillary information), they may not accurately reflect behavior in actual markets.¹⁹

In contrast to the survey methods typically applied to investigations of potentially deceptive practices, economics offers useful insights into the question of whether the observed choices of the actual consumers who purchased the product associated with false or misleading information are likely to have been significantly impacted by deception. Additionally, economics permits one to accurately estimate the amount of restitution required to fully compensate consumers from harm stemming from the harmful act. These same economic tools (rather than surveys) are typically used to examine the merits and calculate damages in antitrust cases.

Where data on the choices of consumers are available, econometric methods may offer insight into all three elements of the FTC Staff’s investigation of deceptive practices. As will be discussed in more detail below, economists have developed numerous, rigorously studied empirical methods to understand the impact of changes to consumers’ information sets (e.g., comparing an actual world with allegedly inadequate disclosures and a “but-for world” with more detailed disclosures) on their decisions. Here we highlight three broad categories of analyses which, in our experience are often helpful in establishing (or rebutting) consumer harm in, for example, consumer protection matters involving allegations of deception, inadequate disclosures, and/or unsupported performance claims. We stress that we adopt a simple pedagogical approach to illustrate concepts; in practice, a variety of econometric and statistical tools are required in order to conduct reliable statistical tests for the concepts presented below.

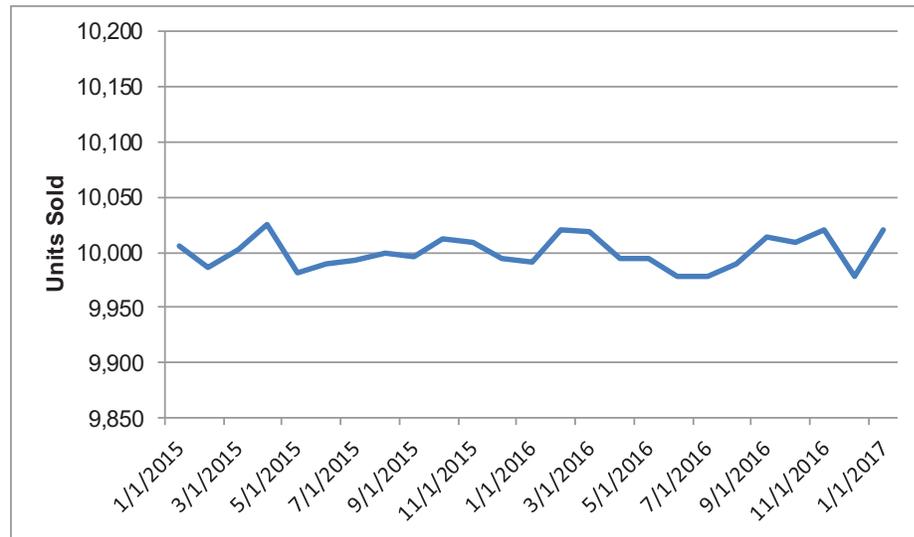
As a general matter, there are many alternative approaches, and the specific approach used will depend on the industry, the nature of the alleged deceptive practice, and the quality of data available. Likewise, a variety of different types of data may be used to formally test whether alleged behavior impacted consumer decisions or resulted in harm or injury to consumers.

¹⁸ As one example, consider that a promotion may inadequately disclose the “full price,” but the “full price” might be so attractive that consumers would have made the exact same decision in a “but-for world” with adequate disclosure. Suppose a special promotion at a new Mercedes dealership clearly discloses that its first—and only its first—customer will be offered a Mercedes at a special price of \$1,000, but fails to disclose a \$500 processing fee. Because the \$500 processing fee is unlikely to impact buyers’ decisions, the omission of the \$500 fee is not *economically material* (e.g., the dealer does not enjoy any ill-gotten gains, and the consumer would have made exactly the same decision in a “but-for” world with adequate disclosure). In this example, none of the monies collected by the perpetrator were ill-gotten; the same amount would have been collected in a but-for world without deception, so consumers need not receive any restitution payments to be made “whole.” Note that, as a general matter, it is not efficient to use scarce enforcement resources to prevent deceptive practices that do not impact consumer behavior or adversely impact consumer welfare. Unlike fraudulent practices, where the nature of the deception may be criminal, the FTC’s enforcement of Section 5 violations extends to business practices that are not unambiguously deceptive. Although halting unambiguously deceptive practices (e.g., selling “snake oil”) may be desirable, disgorgement of monies for an alleged deceptive practice in which no one has been harmed is not likely to be in the public interest, given scarce agency resources. Indeed, doing so may have a chilling effect on legitimate business practices regarding the dissemination of valuable information.

¹⁹ See, e.g., Shari Seidman Diamond, *Reference Guide on Survey Research*, in REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 361–423 (3d ed. 2011).

The Before-After Approach. First, suppose that a firm with an established product sold through its website initiated a new pricing strategy on January 1, 2016. This new pricing strategy did not change the actual price of the product, but reduced the price displayed on its landing page and added a separate “handling fee” in small print that is alleged to have been inadequately disclosed. The allegations *appear* to be consistent with survey results showing that 20 percent of respondents failed to notice the handling fee. It is possible that the survey is flawed owing to the absence of relevant filter questions, the use of leading questions, or the absence of a control group.²⁰ In any event, survey results alone are insufficient to directly address the issue of consumer harm in the actual market; economic analysis provides a more direct method of examining the issues.

Figure 1



Economic theory indicates that, if consumers failed to notice the handling fee, they would have erroneously believed the price was lower than it actually was. By the law of demand, this implies that, if the allegations are correct, the firm would have enjoyed an increase in sales, other things equal.²¹ Even if a survey appears to indicate that 20 percent of respondents indicated that they did not notice the handling fee, actual data on sales is more reliable for examining the potential impact of the firm’s alleged failure to disclose on the behavior of actual consumers. Indeed, given historical data on the firm’s sales, one may conduct tests to examine the allegations using data on actual consumer choices in the marketplace. For example, suppose the data patterns for the company’s sales are similar to those in Figure 1. In this case, there does not appear to be any material difference in consumer behavior before and after the alleged inadequate disclosure (e.g., before and after January 1, 2016). Expressed differently, these data are inconsistent with the hypothesis that the alleged inadequate disclosure was economically material to the decisions of actual consumers.

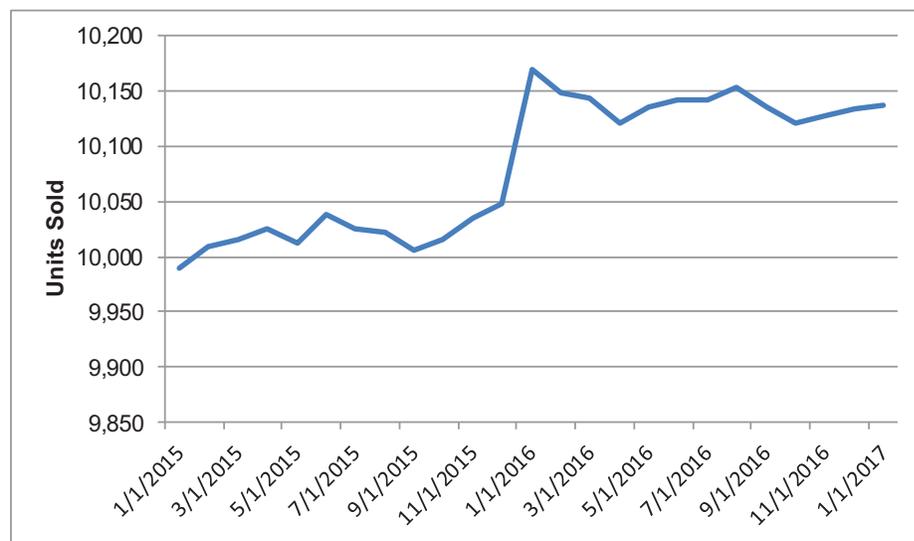
²⁰ See *id.*

²¹ For exposition, this example assumes that there have not been any other changes to the market, apart from the disclosure, that could affect consumer behavior. As discussed below, it may be important to account for other exogenous factors when examining the impact of the change in disclosure on consumer behavior.

One can formally test this hypothesis using regression techniques to control for other factors that might influence consumer decisions, but for purposes of this article, Figure 1 illustrates how actual data on consumer behavior may be used, in principle, to refute or reject an allegation that 20 percent of consumers suffered economic harm because they failed to notice the handling fee. Unlike a survey, the results in Figure 1 are based on actual consumer behavior and not subject to concerns about leading questions, whether one is testing “consumer memory,” etc.

In contrast to Figure 1, it is possible that actual data might display a pattern like that in Figure 2. Here, notice the company’s units sold increasing following January 1, 2016, and thus the economic data appear consistent with the survey results. In other words, the jump in units sold immediately following the date at which the company started using the disclosure at issue is consistent with the hypothesis that some consumers did not observe the fine print regarding the handling fees and purchased the product that they would not otherwise have purchased. However, also notice that, in the scenario in Figure 2, the size of the jump is on the order of 1.5 percent (units sold jump from approximately 10,000 to 10,150, a 1.5 percent increase). Depending upon the nature of the product, this might indicate that far less than 20 percent of customers were actually harmed by the inadequate disclosure.

Figure 2

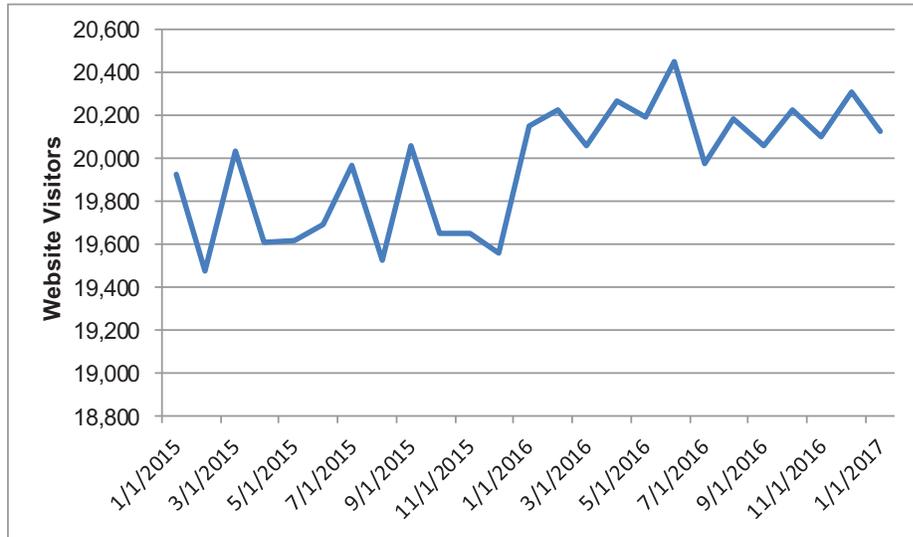


We note that analyses based on data such as that in Figure 1 and Figure 2 hold other things constant—things like changes in consumer incomes, changes in the prices of substitutes, and other factors (such as the amount of TV advertising the firm conducts to induce consumers to visit its website in the first place). It turns out that this is not a real limitation, however, because econometric techniques (including regression analysis) may be used to control for other factors that might have influenced the company’s sales.

To illustrate, suppose the company’s underlying online sales data is as displayed in Figure 2, but that the company also invested more in TV advertising, that this change (which is not alleged to be deceptive) induced more consumers to visit the company’s website, and that the allegedly deceptive disclosure only appeared on the website. The associated increase in visitors to the firm’s website is displayed in Figure 3.

In comparing Figure 2 and Figure 3, there are obviously confounding effects raising the possibility that the increase in online sales observed in Figure 2 did not stem from inadequate dis-

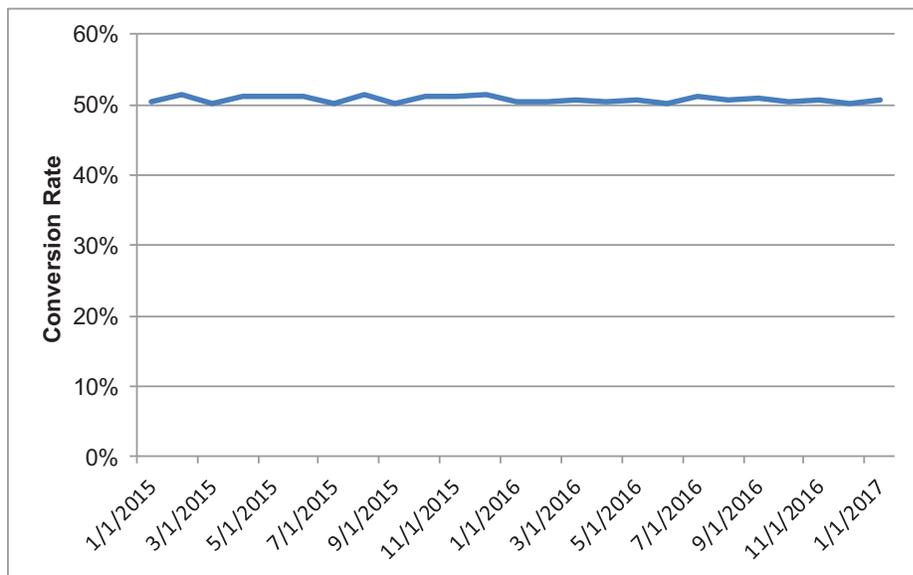
Figure 3



closure, but from an increase in web traffic (as a result of the benign increase in TV advertising). One simple method of distinguishing between these two possibilities is to examine data on the “conversion rate”—that is, the ratio of the company’s sales to website visits. If the allegations are correct, the inadequate disclosure would have resulted in an increase in the conversion rate. That is, for any given number of visitors, the firm would sell more units because consumers would be unaware of a portion of the price. In contrast, if the conversion rate did not change following January 1, the data are inconsistent with the allegation that consumers were harmed as a result of inadequate disclosure.

Figure 4 shows that the conversion rate, which is the ratio of the numbers in Figures 2 and 3, was unaffected by the change in disclosure. The conversion rate in Figure 4 is around 50 percent, indicating that about half of those consumers visiting the company’s website end up purchasing its product. Thus, using the “before-after approach” based on the data in Figure 2 and Figure 3

Figure 4



leads to a conclusion that the allegedly deceptive practice did not significantly impact the purchase decisions of actual consumers.

In concluding our discussion of the before-after approach, we note that, if the ultimate pattern of data (once one uses regression analysis to control for other potential factors) appears as in Figure 2 rather than as in Figure 4, there are two potential reasons for the observed patterns. One possibility is that a small fraction (e.g., 1.5 percent) of consumers did not read the fine print, but the remaining fraction (e.g., 98.5 percent) did. Another possibility is that, even though 20 percent of consumers might not have understood the hidden fee, only 1.5 percent of consumers would have made a different decision in a “but-for world” in which they did understand the fee (e.g., the fee was adequately disclosed).

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Thus, while economics cannot shed light on the normative question of what constitutes a “significant minority” of consumers, it can help quantify the number or percentage of consumers who were potentially harmed by the alleged act. Even in instances where an advertisement is deemed to have deceived a significant minority of consumers, one may use consumer data and econometric analysis to determine how many consumers were impacted by the deceptive act—in this case, 1.5 percent—and reliably determine the extent of consumer injury and/or restitution.

The Treatment-Control Approach. In consumer protection matters where historical data on consumer purchases are not available, or where the practice at issue has been ongoing and therefore there is no “before” period, the treatment-control approach may be used to examine the impact of an alleged act on consumers. To illustrate, suppose that a firm markets a brand of wine in City A using an “organic” label. It sells the exact same product at the exact same price in City B; however, as a result of differences in local regulations, the product does not carry the organic label in City B.

Suppose there is an allegation that the firm was unable to substantiate its organic label and, as a consequence, consumers in City A have been harmed. In this example, it is as if wine in City A has been “treated” with an organic label, and wine in City B (the “control” wine) has not. For purposes of this example, one might initially assume that consumers in these two cities are identical in terms of their overall consumption of alcohol, tastes for wine versus beer or spirits, and so on. In practice, this assumption is not necessary because regression analysis allows one to control for these sorts of heterogeneities.

Taking the non-substantiation claims at face value, one may use available data on sales in City A and City B to examine potential consumer harm. As an initial matter, one may observe that average sales of the wine at different stores in City A tend to exceed sales at stores in City B. In this case, the patterns of consumption would be consistent with the allegations; in City A (where the “organic label” treatment was applied), sales are higher because consumers in City A were duped into believing there was more value to the product than the company can actually substantiate.

While this assumes the only difference between City A and City B are the labels, one could control for other factors (including population size and demographic factors such as age or gender differences) that might lead to differences in wine consumption in City A and City B for purely benign reasons. Regression analysis permits one to control for these factors in much the same way that one can control for age and other characteristics in a study that examines the impact of smoking on mortality. Unlike experimental studies, the “control group” here is based on an observational study.²²

²² Thus, when we refer to a control group, we refer to an “observational study” in which one controls for “confounding variables by statistical methods.” See David H. Kaye & David H. Freedman, *Reference Guide on Statistics*, in REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 221 (3d ed. 2011).

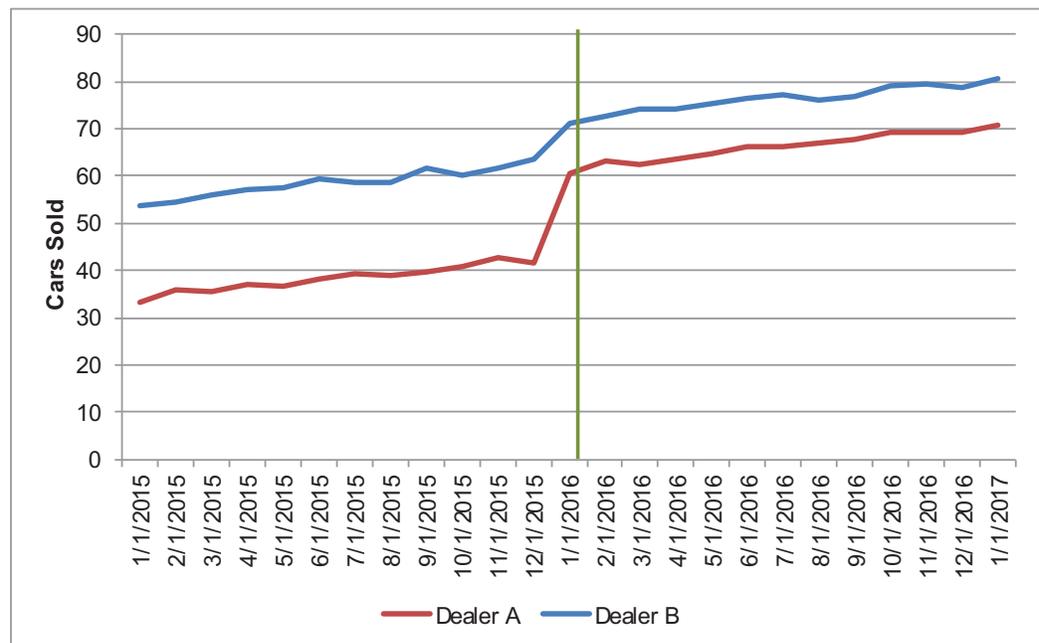
In the case at hand, suppose that one conducts such an analysis to obtain estimates of wine consumption in City A and City B that hold all characteristics constant except for the labeling. This permits one to statistically test whether consumers in City A purchased more wine than they would have purchased in a but-for world in which the company did not utilize the organic label. For example, one might find that sales in City A are about 1 percent higher than in City B after one controls for other factors that influence consumption, but the difference is not statistically significant. In this case, the data would be inconsistent with the allegation that consumers were harmed as a result of the deceptive organic label.

The Difference-in-Difference Approach. The difference-in-difference approach combines the intuition underlying the before-after approach and the treatment-control approach. For example, suppose that a car dealer (Dealer A) changed the manner in which it disclosed its warranty on cars on January 1, 2016, and a nearby dealer of similar cars (Dealer B) did not modify its disclosure. It is alleged that Dealer A's new warranty is deceptive because reasonable consumers would infer that it covers all maintenance, even though fine print indicates it does not. In effect, the allegation is that the warranty did not actually change on January 1, 2016, but the manner in which it was disclosed to consumers changed, deceptively. In this instance, we have both before (pre-January 1) and after (post-January 1) data on sales by the treatment company (Dealer A) and a control company (Dealer B).

Hypothetical data are depicted in Figure 5. Notice that both dealer's sales are trending upward before January 1, and there is a difference in sales levels. After January 1, both dealer's sales increase suddenly, but Dealer A's increase appears larger than Dealer B's.

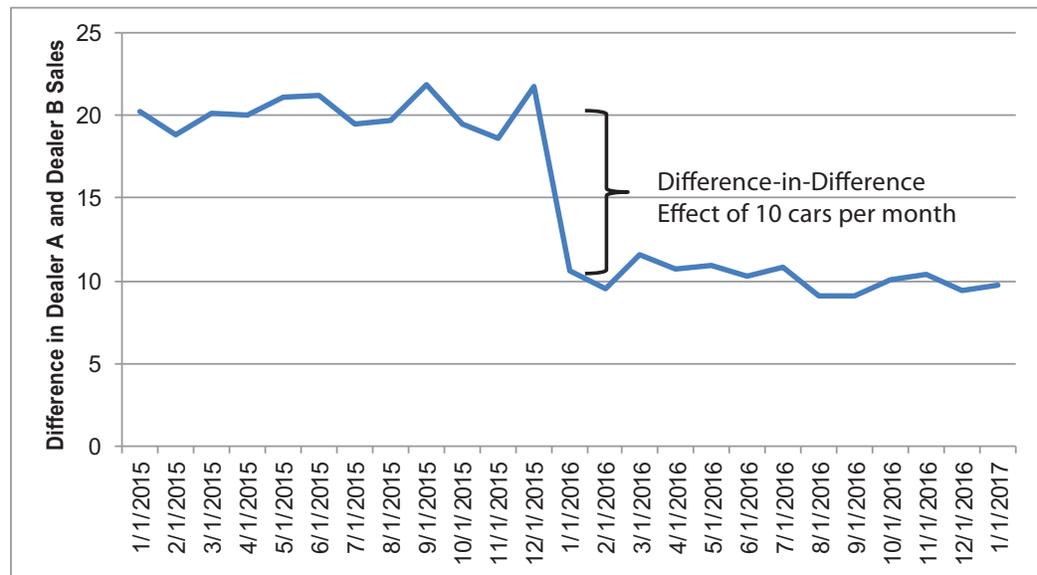
A difference-in-difference approach allows one to disentangle the effect of a specific treatment on a group from other confounding effects occurring at the same time. For example, a new popular model of car may be launched on January 1, 2016. In this case, economic theory predicts Dealer A's sales would have increased regardless of the allegedly deceptive change in warranty disclosure. A properly applied difference-in-difference approach may be able to identify the increase in sales specifically attributable to the warranty disclosure. In this stylized example, one

Figure 5



may observe that the difference in sales between Dealer A and Dealer B, shown in Figure 6, shrinks from 20 cars to 10 cars after January 1 once the analysis accounts for factors like new model introductions on January 1st. Thus, this evidence is consistent with Dealer A's change in disclosure leading to 10 more car sales per month. In reality, a regression model of a difference-in-difference approach may apply additional controls to account for other potential explanations of the different pattern of sales between the dealers.

Figure 6



Although purchase data were central to all three forms of analysis discussed above, data and information on other factors that might impact consumer behavior may easily be accounted for using standard economic and statistical techniques. Additionally, other data—such as lost sales, returns or cancellations—may be relevant for assessing the quality of information available to consumers before purchase. Likewise, greater detail (more granular levels of observation) tends to provide for additional forms of variation that an econometrician can exploit to identify other benign factors that impact consumer decisions.

Identifying and Analyzing Unfairness. Under the Commission's Policy Statement on Unfairness, an unfairness case requires that consumer injury be "substantial," not "trivial or merely speculative," and that it "not be outweighed by any offsetting benefits."²³ In other words, the Policy Statement itself requires a cost-benefit analysis of the allegedly unlawful conduct to ascertain whether the harms it causes are greater than the benefits it offers. This should ingrain an economic analysis within unfairness cases, and it provides a clear path through which economists can meaningfully contribute to case development. It is, in fact, difficult to overstate the value of economic analysis in hard cases like unfairness allegations involving privacy and data security.²⁴ Both privacy and data security cases can involve economic tradeoffs more subtle than the typical deception case involving fraud or other conduct without redeeming economic virtue. Economists can be helpful in thinking through several important issues that arise in such unfairness cases.

²³ Fed. Trade Comm'n, FTC Policy Statement on Unfairness, *appended to International Harvester Co.*, 104 F.T.C. 949, 1070 (1984), <https://www.ftc.gov/public-statements/1980/12/ftc-policy-statement-unfairness>.

²⁴ See Cooper & Wright, *supra* note 13; Wright, *supra* note 10; Nelson & Wright, *supra* note 9.

Each of the techniques described above with respect to deception could also be deployed to enhance Commission analysis of unfairness cases. They could help more precisely to identify the costs and benefits at issue, thereby allowing the FTC more accurately to conduct the required cost-benefit analysis. For instance, consider that Application Platform A is being investigated under an unfairness theory for failing expressly to inform consumers that a new payment option it was introducing, which would charge a consumer only once a month (rather than at the time of each purchase), would cost \$0.05 per month. Assume, further, this information was available in billing policy statements and in an updates section, but not explicitly called to the consumer's attention. This option might benefit some consumers, by essentially extending them a temporary credit (particularly for those using debit cards to pay), but might harm others who valued this option at less than \$0.05 per month. Application Platform B instituted a similar policy—but also expressly disclosed it—six months before the Commission began its investigation. Depending upon the data available, the FTC could use before-after, treatment-control, or difference-in-difference approaches to evaluate how many consumers opted to use this payment option when expressly informed of the cost versus how many opted to use it when the information was available only in the billing and updates pages, and also how purchasing trends may or may not have altered across platforms, to better understand the implications of the changes and the relative effects across each platform.²⁵

Consider further the impact of privacy settlements on incentives to make disclosures in privacy policies. In *Nomi*, for example, the FTC relied upon a statement in Nomi's privacy policy pledging to “[a]lways allow consumers to opt out of Nomi's service on its website as well as at any retailer using Nomi's technology.”²⁶ Based upon this statement, the Commission concluded Nomi engaged in unlawful conduct because it failed to always provide an in-store opt-out option or to inform consumers that a specific retailer would be using the service—despite the fact that Nomi always offered an easy opt-out option on its webpage. The Commission and Nomi entered into a 20-year consent agreement to resolve the matter, which requires Nomi to “not misrepresent in any manner, expressly or by implication” the options by which consumers can control the collection, use, disclosure, or sharing of their information or regarding the notice Nomi would provide consumers regarding how it would use that data. It further subjects Nomi to various requirements regarding maintaining materials, making these materials available to the Commission, and other reporting requirements for several years.

Here, economic analysis could help in a variety of ways. One important question is whether consumers were actually harmed and, if so, to what extent. Economists could assess whether consumers' behavior would have been changed but-for the allegedly unlawful conduct—that is, were they actually relying upon Nomi's statement that they could opt out in stores or were they sufficiently able to opt out online.²⁷

Importantly, economists can also play a valuable role in providing input on potential consent agreement provisions. For example, one concern with the consent agreement in *Nomi* was that, because the FTC imposed no *ex ante* legal obligation on the firm to adopt a privacy policy (let

²⁵ See generally Wright *Apple* Dissent, *supra* note 8 (explaining why the FTC's decision in the Apple iTunes matter failed to reflect a rigorous assessment of consumer harm in the unfairness setting).

²⁶ Complaint ¶ 12, Nomi Technologies, Inc., FTC File No. 132-3251 (Apr. 23, 2015), <https://www.ftc.gov/system/files/documents/cases/150902nomitechcmpt.pdf>.

²⁷ See, e.g., Dissenting Statement of Commissioner Joshua D. Wright, *Nomi*, FTC File No. 132-3251 (Apr. 23, 2015), https://www.ftc.gov/system/files/documents/public_statements/638371/150423nomiwrightstatement.pdf.

alone to offer a simple, always-available online opt-out option), the decision would chill similarly situated firms from adopting one in the first instance—a result that would be likely to make consumers worse off. Such agreements might particularly discourage start-ups like Nomi from adopting any (and especially comprehensive) privacy policies for fear of incurring costly FTC investigations and burdensome, years long requirements for which they simply do not have resources.

Economists can also identify and analyze potentially countervailing benefits in unfairness cases and their magnitude relative to potential harms. This is a role economists traditionally play in competition cases and are well suited for. In the absence of thorough analysis of potential benefits of allegedly unfair conduct, the agency is susceptible to the error of allocating agency resources to prohibit conduct that is of net benefit to consumers.

Economists can also identify and analyze potentially countervailing benefits in unfairness cases and their magnitude relative to potential harms.

Consider the FTC's recent settlements in the various "in-app purchase" cases. The FTC alleged it to be unfair that one of Apple's product features opened a 15-minute window after entry of a password during which users could make additional purchases without being prompted to re-enter the password. The FTC challenged Apple's business practice as unfair because it charged the consumer without obtaining express informed consent during the window, equating the conduct to a failure to disclose.²⁸ While the disclosure level certainly may have resulted in some harm to consumers, there is undoubtedly also consumer benefit that arises from the customer experience without additional disclosures and with the 15-minute window as designed. A careful cost-benefit analysis would be required not only to satisfy the Commission's own unfairness standard, but also to ensure that the FTC's action resulted in a net benefit to consumers. While a formal discussion of the economic and statistical tools available to conduct such cost-benefit analyses is beyond the scope of this article, we note that these techniques are used in "rule of reason" antitrust cases; indeed, economists routinely quantify the procompetitive benefits of potentially harmful practices, such as vertical restraints or information sharing agreements.

Ensuring that Actions Are in the Public Interest. Enforcement actions are not costless. Economic analysis can help target Commission enforcement to its best uses. The Commission has limited resources to devote across investigations, enforcement actions, and actual litigations. Economics can help the agency to enhance its enforcement efforts by identifying those areas where the Commission's scarce resources can best protect consumers. For instance, economic analysis can help illuminate which matters under investigation involve the most consumer harm and for which of those matters agency enforcement would offer the most benefits.

Of course, comprehensive economic analysis will not be warranted in every case. But closely incorporating economic analysis into consumer protection enforcement more generally would elucidate when in-depth economic investigations are and are not useful. Economic analysis has helped us to learn where best to target resources on the antitrust side—for instance, merger retrospectives help us to better understand and predict outcomes and to identify where intervention has helped or hurt, leading the Commission to focus heavily upon, among other things, hospital mergers. Just as economic analysis has helped the Commission target its antitrust resources, it can assist in putting consumer protection resources to their best uses.

Conclusion

Consumer protection enforcement efforts are fundamentally important to a well-functioning economy, but can also have adverse, unintended consequences on competition that ultimately harm

²⁸ See Complaint ¶¶ 28–30, Apple, Inc., FTC No. 112-3108, (Jan. 15, 2014).

the very people they are designed to protect. Deeper integration of economic thinking and economic analysis into consumer protection matters offers value to all stakeholders—agencies, private plaintiffs, state attorneys general, and defendants—from case development to litigation and settlement. ●