

September 2014

## Variety, Mergers, and Consumer Well-Being: Towards a Capability Approach to Merger Law

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### Recommended Citation

Jennifer E. Sturiale, *Variety, Mergers, and Consumer Well-Being: Towards a Capability Approach to Merger Law*, 117 W. Va. L. Rev. (2014).

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**VARIETY, MERGERS, AND CONSUMER WELL-BEING:  
TOWARDS A CAPABILITY APPROACH TO MERGER LAW**

*Jennifer E. Sturiale\**

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ABSTRACT

Revisions incorporated into the Horizontal Merger Guidelines in 2010 claim that the Department of Justice and the Federal Trade Commission consider anticompetitive effects to product “variety” when evaluating mergers. The Guidelines do not, however, explain the methodology or tools that can and should be used to evaluate such effects. At the same time, there is an ongoing normative debate over antitrust’s consumer welfare standard, one strain of which is a disagreement over the meaning of the word “welfare.” This Article considers how variety effects could be evaluated—first, under normative welfare economics, and then under an alternative to welfare economics, the

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\* Researcher, Georgetown University Law Center. I wish to thank Steve Salop for many valuable discussions and his comments and suggestions. I also wish to thank Josh Teitelbaum and David Super for useful comments on earlier drafts, as well as the participants of the 2014 Munich Conference on Innovation and Competition, sponsored by the Max Planck Institute for Innovation and Competition and the Center for Law & Economics at ETH Zurich, and the participants of the 2013 Manne Faculty Forum at George Mason University School of Law, where I was a Visiting Assistant Professor at the time. This Article also benefited from the excellent research assistance of Steve Lavender, Jacob Hamburger, Mark Weiss, and Elise Nelson. All errors are my own.

Capability Approach. The Capability Approach is a normative framework for evaluating individual well-being that stands in contrast to welfare economics. Rather than assess individual well-being in terms of an individual's utility as determined from the individual's subjective perspective, as welfare economics attempts to do, the Capability Approach evaluates individual well-being in terms of an individual's capability to achieve the kind of life that the individual has reason to value. Ultimately, this is an assessment of what an individual is able to be and to do.

## I. INTRODUCTION

In the summer of 2011, AT&T sought to acquire T-Mobile.<sup>1</sup> The deal attracted a great deal of attention. Had the deal gone through, it would have brought together the second and fourth largest mobile wireless telecommunication providers, and the merged entity would have been the nation's largest provider.<sup>2</sup> Analysts hypothesized that a legitimate justification for the merger included the fact that, because AT&T and T-Mobile operated on the same technology, GSM, the merged entity would have been able to provide customers with better coverage.<sup>3</sup> Better service would have been a significant achievement for AT&T, which had been plagued by, and ridiculed for, dropped calls and slow data service.<sup>4</sup> The deal also would have enabled the combined entity to realize significant cost savings and economies of scale by, for example, closing offices and reducing spending on advertising.<sup>5</sup> Still, the deal would have reduced the number of national wireless telecommunication providers from four to three, which would have made price coordination in the market more likely.<sup>6</sup> In addition, it would have eliminated competition between AT&T and T-Mobile, each of which competed more intensely with the other than they did with their other competitors, Verizon and Sprint.<sup>7</sup> Either of these things—price coordination or reduced competition—would have made higher

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<sup>1</sup> Complaint ¶ 2, *United States v. AT&T Inc.*, No. 1:11-cv-01560 (D.D.C. Aug. 31, 2011), 2011 WL 3823252 [hereinafter AT&T Complaint].

<sup>2</sup> *Id.* ¶¶ 7, 8, 10.

<sup>3</sup> Andrew Ross Sorkin et al., *AT&T to Buy T-Mobile USA for \$39 Billion*, N.Y. TIMES: DEALBOOK (Mar. 20, 2011, 2:37 PM), [http://dealbook.nytimes.com/2011/03/20/att-to-buy-t-mobile-usa-for-39-billion/?\\_php=true&\\_type=blogs&\\_r=0](http://dealbook.nytimes.com/2011/03/20/att-to-buy-t-mobile-usa-for-39-billion/?_php=true&_type=blogs&_r=0).

<sup>4</sup> See, e.g., Laura M. Holson, *AT&T's Rivals Are Happy to Attack Over iPhone's Network Woes*, N.Y. TIMES, Aug. 29, 2008, at C1, available at <http://www.nytimes.com/2008/08/29/technology/29phone.html?pagewanted=all>; Jenna Wortham, *We Can iHandle It, AT&T Says*, N.Y. TIMES (Jan. 28, 2010, 1:20 PM), <http://bits.blogs.nytimes.com/2010/01/28/we-can-ihandle-it-att-says-it-is-improving-network/>.

<sup>5</sup> Sorkin et al., *supra* note 3.

<sup>6</sup> AT&T Complaint, *supra* note 1, ¶ 36.

<sup>7</sup> See *id.* ¶ 37.

prices in the market for mobile wireless telecommunication services more likely. Indeed, in a complaint filed by the Department of Justice (DOJ) and a number of plaintiff States, the likelihood of higher prices was among the justifications the plaintiffs offered to justify enjoining the merger.<sup>8</sup> However, the DOJ and plaintiff States additionally claimed the merger was anticompetitive because it would have eliminated the “product variety” that T-Mobile brought to the market.<sup>9</sup>

The agencies’ concern with a merger’s effect on product variety is a relatively new development, at least insofar as that concern has been made explicit in the agencies’ complaints, competitive impact statements, or the like. The newly stated interest in product variety tracks recent revisions to the Horizontal Merger Guidelines (Guidelines), published by the DOJ and the Federal Trade Commission (FTC) in 2010. The revisions to the Guidelines specifically claim that, when evaluating the competitive effects of a merger, the agencies consider the potentially anticompetitive effects to variety.<sup>10</sup>

Despite this claim, the Guidelines are short on any explanation of how the competitive effects of changes in variety are to be evaluated.<sup>11</sup> Indeed, on the day the agencies released the revised Guidelines, FTC Commissioner J. Thomas Rosch issued a statement in which he highlighted some of the “flaws” he perceived in them, including their brief and ambivalent treatment of the issue of product variety, which “leaves the misimpression that non-price factors are far less significant than price factors to the Commission,” as well as their failure “to offer a clear framework for analyzing non-price considerations.”<sup>12</sup>

<sup>8</sup> *Id.* ¶¶ 3, 38, 40, 44.

<sup>9</sup> *Id.* ¶ 33; *see also id.* ¶¶ 3, 38, 40, 48.

<sup>10</sup> *See* U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES § 6.4 (“Innovation and Product Variety”) (2010) [hereinafter 2010 HORIZONTAL MERGER GUIDELINES], available at <http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf>; *see also id.* § 2.2.1 (“Merging Parties”) (“Explicit or implicit evidence that the merging parties intend to raise prices, reduce output or capacity, reduce product quality or variety, withdraw products or delay their introduction, or curtail research and development efforts after the merger . . . can be highly informative in evaluating the likely effects of a merger.”); *id.* § 10 (“Efficiencies”) (“[P]urported efficiency claims based on lower prices can be undermined if they rest on reductions in product quality or variety that customers value.”).

<sup>11</sup> The Guidelines merely note, “non-price effects may coexist with price effects, or can arise in their absence. When the Agencies investigate whether a merger may lead to a substantial lessening of non-price competition, they employ an approach analogous to that used to evaluate price competition.” *Id.* § 1 (“Overview”).

<sup>12</sup> J. Thomas Rosch, Comm’r, Fed. Trade Comm’n, Statement of Commissioner J. Thomas Rosch on the Release of the 2010 Horizontal Merger Guidelines, Project No. P092900, 3 (Aug. 19, 2010), available at [http://www.ftc.gov/sites/default/files/documents/public\\_statements/concurring-statement-commissioner-j.thomas-rosch-release-2010-horizontal-merger-guidelines/100819horizontalmergerstatement.pdf](http://www.ftc.gov/sites/default/files/documents/public_statements/concurring-statement-commissioner-j.thomas-rosch-release-2010-horizontal-merger-guidelines/100819horizontalmergerstatement.pdf); *see also* J. Thomas Rosch, Comm’r, Fed. Trade Comm’n, Remarks of J. Thomas Rosch, Commissioner, Federal Trade Commission at the NERA 2010 Antitrust & Regulation Seminar: The Next Challenges for Antitrust Economists 7–8 (July 8,

The public comments on the draft version of the Guidelines are no more elucidating.<sup>13</sup> A few commentators noted the importance of evaluating mergers for non-price effects such as changes in variety, but none explain how, exactly, the agencies should do such an evaluation.<sup>14</sup>

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2010), available at [http://www.ftc.gov/sites/default/files/documents/public\\_statements/next-challenges-antitrust-economists/100708neraspeech.pdf](http://www.ftc.gov/sites/default/files/documents/public_statements/next-challenges-antitrust-economists/100708neraspeech.pdf) (commenting on the draft Guidelines and noting that although they “offer a framework for analyzing the loss of product variety,” that framework is not fleshed out and raises many questions).

<sup>13</sup> For links to all comments submitted as a part of the agencies’ workshop series, see Comments to #319: *Project No. P092900; Horizontal Merger Guidelines Review Project: A Series of Five Joint FTC-DOJ Workshops*, FED. TRADE COMM’N, <http://www.ftc.gov/policy/public-comments/initiative-319>.

<sup>14</sup> See Robert H. Gertner & Kevin M. Murphy, *Comments on the Horizontal Merger Guidelines* 1 (Fed. Trade Comm’n Project No. 92900, Horizontal Merger Guidelines Review, Public Comment No. 545095-00021, 2009), available at [http://www.ftc.gov/sites/default/files/documents/public\\_comments/horizontal-merger-guidelines-review-project-545095-00021/545095-00021.pdf](http://www.ftc.gov/sites/default/files/documents/public_comments/horizontal-merger-guidelines-review-project-545095-00021/545095-00021.pdf) (“Evaluating the likely competitive effects of a merger usually requires understanding the impact of the proposed merger on prices, but sometimes also requires predicting the likely impact on quality, variety and innovation.”); Spencer Weber Waller & Deven Desai, *Introduction and Relevants [sic] Excerpts from Brand Law* 41 (Oct. 20, 2009), available at [http://www.ftc.gov/sites/default/files/documents/public\\_comments/horizontal-merger-guidelines-review-project-545095-00004/545095-00004.pdf](http://www.ftc.gov/sites/default/files/documents/public_comments/horizontal-merger-guidelines-review-project-545095-00004/545095-00004.pdf) (arguing that the Guidelines should take account of the market power that results from product branding—a form of product differentiation); Charles D. Weller, *HMG Review—Comment, Project No. 092900*, at 19 (Fed. Trade Comm’n Project No. 92900, Horizontal Merger Guidelines Review, Public Comment No. 545095-00039, 2009), available at [http://www.ftc.gov/sites/default/files/documents/public\\_comments/horizontal-merger-guidelines-review-project-545095-00039/545095-00039.pdf](http://www.ftc.gov/sites/default/files/documents/public_comments/horizontal-merger-guidelines-review-project-545095-00039/545095-00039.pdf) (quoting Michael E. Porter, *Competition and Antitrust: A Productivity Based Approach*, in *UNIQUE VALUE: COMPETITION BASED ON INNOVATION CREATING UNIQUE VALUE FOR ANTITRUST, THE ECONOMY, HEALTHCARE, EDUCATION AND BEYOND* 1, 24 (Charles D. Weller ed., 2005) (“The [competitive risk of mergers] stems from the potential lessening of competitive pressure among firms in the industry, the potential reduction in product choice and variety, and the reduction in the number of different approaches being pursued to product/process development and hence the likelihood of innovation.”)).

The American Antitrust Institute (AAI) submitted a comment in which it addressed consumer choice and variety in somewhat greater length than did the other commentators. See American Antitrust Institute, *Views of the American Antitrust Institute* 6–7 (Fed. Trade Comm’n Project No. 92900, Horizontal Merger Guidelines Review, Public Comment No. 548050-00025, 2010), available at [http://www.ftc.gov/sites/default/files/documents/public\\_comments/horizontal-merger-guidelines-review-project-proposed-new-horizontal-merger-guidelines-548050-00025/548050-00025.pdf](http://www.ftc.gov/sites/default/files/documents/public_comments/horizontal-merger-guidelines-review-project-proposed-new-horizontal-merger-guidelines-548050-00025/548050-00025.pdf). The only suggestion of how one is to analyze choice effects in its comment is the AAI’s reference to the “consumer choice framework”—a framework proposed and discussed at greater length in the scholarly writing of Robert H. Lande and Neil W. Averitt, respectively the AAI Director and principal author of the comment, and Attorney in the Office of Policy and Coordination, Bureau of Competition, Federal Trade Commission. See, e.g., Neil W. Averitt & Robert H. Lande, *Using the “Consumer Choice” Approach to Antitrust Law*, 74

A look to the past practices of the agencies as reflected in their statements and analyses for public comment provides no greater insight. There is little evidence that, prior to the revisions to the Guidelines, the agencies were concerned with how a merger might affect variety and consumer choice.<sup>15</sup> From 1997 to 2010, when the revised Guidelines were issued, the agencies rarely argued that one of the anticompetitive effects of a merger under review was a harmful change in product variety or consumer choice. And in the occasional case where these sorts of arguments were made, they were always ancillary to traditional arguments relating to harmful price effects.<sup>16</sup>

Since the adoption of the 2010 Merger Guidelines, the agencies have arguably reviewed at least a few mergers for their effects on variety,<sup>17</sup> or what the agencies sometimes refer to as “choice.”<sup>18</sup> But the competitive impact statements and other commentary of the agencies relating to those mergers do not reveal how, if at all, the competitive effects analysis the agencies would have otherwise employed has changed as a result of the Guidelines’ revisions. In each case in which variety was evaluated, the agencies concluded that, in addition to a change in variety (specifically, a reduction), the merger was likely

ANTITRUST L.J. 175 (2007) [hereinafter Averitt & Lande, *Using the “Consumer Choice” Approach to Antitrust Law*]; Robert H. Lande, *Consumer Choice as the Ultimate Goal of Antitrust*, 62 U. PITT. L. REV. 503 (2001) [hereinafter Lande, *Consumer Choice as the Ultimate Goal of Antitrust*]. However, as discussed *infra*, the full contours of Averitt and Lande’s approach are not entirely clear.

<sup>15</sup> This is particularly interesting given that one of the goals of the revision process was to describe more accurately how the agencies actually evaluate horizontal mergers. See Carl Shapiro, Deputy Assistant Att’y Gen. for Econ., Antitrust Div., U.S. Dep’t of Justice, Remarks as Prepared for the American Bar Association Section of Antitrust Law Fall Forum 13 (Nov. 18, 2010), available at <http://www.justice.gov/atr/public/speeches/264295.pdf> (“From the outset, a primary motivation in revising the Guidelines was to promote transparency by describing more accurately how the Agencies actually evaluate horizontal mergers.”).

<sup>16</sup> See Analysis to Aid Public Comment, *In re Digital Equip. Corp.*, No. C-3818 (F.T.C. Apr. 23, 1998), available at [http://www.ftc.gov/sites/default/files/documents/cases/1998/04/9810040.ana\\_.htm](http://www.ftc.gov/sites/default/files/documents/cases/1998/04/9810040.ana_.htm); Complaint ¶ 40, *United States v. Ticketmaster Entm’t Inc.*, No. 1:10-cv-00139 (D.D.C. Jan. 25, 2010) [hereinafter *Ticketmaster Complaint*]; Plaintiffs’ Trial Brief at 2, 20, *United States v. Oracle Corp.*, 331 F. Supp. 2d 1098 (N.D. Cal. June 1, 2004) (No. 3:04-cv-00807); Reply Memorandum in Support of Plaintiff’s Motion for Preliminary Injunction at 16–17, *Fed. Trade Comm’n v. H.J. Heinz Co.*, No. 1:00-cv-01688 (D.D.C. Aug. 28, 2000), 2000 U.S. Dist. Ct. Motions LEXIS 6163.

<sup>17</sup> AT&T Complaint, *supra* note 1, ¶ 3; Complaint ¶ 8, *United States v. Verifone Sys., Inc.*, No. 1:11-cv-00887 (D.D.C. May 12, 2011) [hereinafter *Verifone Complaint*].

<sup>18</sup> See, e.g., AT&T Complaint, *supra* note 1, ¶ 17 (“The Cellular Market Areas . . . that the FCC has identified and used to license mobile wireless telecommunications services providers for certain spectrum bands often approximate the areas within which customers have the same competitive choices.”); *id.* ¶ 20 (“[C]ustomers in local markets across the country often face very similar choices from AT&T, T-Mobile, Verizon, and Sprint, regardless of whether local or regional carriers also compete in any particular [Cellular Market Area].”).

to effect a harmful increase in price. In other words, in all cases in which a merger was likely to cause harmful variety effects, harmful price effects likely would have provided an independent basis for challenging the merger.

This raises at least two important questions: First, how, if at all, can the agencies evaluate mergers for their effects on “variety,” aside from their impact on price and quality?<sup>19</sup> Second, assuming that the agencies can evaluate mergers for variety effects, does this methodology differ from an analysis under the price model—i.e., a model that evaluates mergers for the effects on price and output?

A couple of scholars, Neil Averitt and Robert Lande, have proposed an approach to antitrust law, including merger review, that purports to evaluate firm conduct for its effects on “consumer choice.”<sup>20</sup> At times, they equate their approach—which they coin the “consumer choice approach” or the “consumer choice model”—with “variety,”<sup>21</sup> and they hold it out as something that *is* indeed *different* than the price model. Moreover, Lande claims that the consumer choice model does not merely demand that variety, as a dimension of competition, receive due consideration, but rather that it requires “heightened concern” for variety.<sup>22</sup> Furthermore, Lande offers “consumer choice” as an

<sup>19</sup> Quality is a feature of competition that is undeniably accounted for in industrial organization economics and antitrust law. See Joshua D. Wright & Douglas H. Ginsburg, *The Goals of Antitrust: Welfare Trumps Choice*, 81 *FORDHAM L. REV.* 2405, 2410 & nn.29–32 (2013). Wright and Ginsburg explain, “Quality-adjusted prices have been part of the industrial organization toolkit since the early 1900s. The Bureau of Labor Statistics has used this tool for nearly a century. Furthermore, quality-adjusted prices are frequently used in industrial organization economics and in antitrust analysis.” *Id.* at 2410 (footnotes omitted).

<sup>20</sup> See, e.g., Averitt & Lande, *Using the “Consumer Choice” Approach to Antitrust Law*, *supra* note 14, *passim*.

<sup>21</sup> See, e.g., *id.* at 175 (“In this article we suggest replacing the older paradigms with the somewhat broader approach of ‘consumer choice.’ The choice framework has several advantages. It takes full account of all the things that are actually important to consumers—price, of course, but also variety, innovation, quality, and other forms of nonprice competition. . . . There are a number of variety-valuing industries and circumstances that can be assessed correctly only by including an effective analysis of nonprice factors.” (footnote omitted)); *id.* at 179 (“Approaching such cases in choice terms helps call attention to the relevant kinds of market failures. The industries in which variety and choice are most important tend also to be industries that are especially susceptible to information-related market failures.”); *id.* at 184 (“Thus, a choice-based theory of antitrust is fundamentally just one that is fully attentive to empirical evidence on purchasers’ nonprice, as well as price, preferences. It will continue to protect price competition and other activities likely to result in cost savings because competitive prices are one of the options most highly valued by consumers. But it also recognizes and protects the main additional aspects of nonprice competition, such as innovation, variety, quality, safety, and other product attributes, because consumers base their decisions on these features as well.” (footnote omitted)).

<sup>22</sup> Robert H. Lande, *A Traditional and Textualist Analysis of the Goals of Antitrust: Efficiency, Preventing Theft from Consumers, and Consumer Choice*, 81 *FORDHAM L. REV.* 2349, 2393 (2013) [hereinafter Lande, *A Traditional and Textualist Analysis*].

answer to the longstanding and ongoing<sup>23</sup> debate in antitrust law over what goals and objectives the antitrust laws should serve.<sup>24</sup> That debate is over the meaning of antitrust's consumer welfare standard. One strain of the debate is over whether "consumer" means "purchasers" or society more generally—and therefore over whose welfare "counts"<sup>25</sup>—while another strain of that debate is essentially a normative debate over the meaning of "welfare."<sup>26</sup> Should the meaning of "welfare" be confined to "surplus" as assessed in a partial equilibrium analysis? Should it be construed more expansively to mean "well-being" as that term is used in normative welfare economics, and therefore normative welfare economics is necessarily the normative framework? Or should it mean well-being more generally, unbounded by the meaning normative welfare economics gives the word, and therefore an alternative normative framework should be adopted? These things together—juxtaposing the consumer choice model with the price model, elevating concerns about variety and choice over other concerns, and engagement in the normative "goals debate"—suggest that Averitt and Lande's model has some normative content and, more specifically, that their proposal is offered as an alternative to normative welfare economics.

The full contours of the consumer choice model and any normative framework that it means to propose, however, are unclear. Nonetheless, Averitt and Lande's approach raises at least one additional important question: Is there a normative framework, other than welfare economics, that can practically account for variety effects?

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<sup>23</sup> Symposium, *The Goals of Antitrust*, 81 *FORDHAM L. REV.* 2151 (2013).

<sup>24</sup> See Lande, *Consumer Choice as the Ultimate Goal of Antitrust*, *supra* note 14, *passim*; see also Lande, *A Traditional and Textualist Analysis*, *supra* note 22 (using a legislative history analysis and a textualist analysis of the antitrust statutes).

<sup>25</sup> The debate over the meaning of "consumer" translates into a debate over two different standards—the "total welfare standard" (or "aggregate welfare standard") and the "consumer welfare standard." The total welfare standard evaluates a firm's conduct for the welfare effects on both consumers and producers (i.e., the seller whose conduct is under scrutiny, as well as its competitors). Under the total welfare standard, a firm's conduct is anticompetitive only if it causes a decrease in total welfare; the fact that the conduct may have also caused a wealth transfer from consumers to producers is entirely disregarded. The consumer welfare standard, on the other hand, evaluates a firm's conduct solely for its welfare effect on consumers. Under this standard, wealth transfers *do* matter, and a firm's conduct that results in a transfer from consumers to producers is anticompetitive. See Steven C. Salop, *Question: What Is the Real and Proper Antitrust Welfare Standard? Answer: The True Consumer Welfare Standard*, 22 *LOY. CONSUMER L. REV.* 336, 336–37 (2010).

<sup>26</sup> See, e.g., Barak Y. Orbach, *The Antitrust Consumer Welfare Paradox*, 7 *J. COMP. L. & ECON.* 133, 136 (2011); Maurice E. Stucke, *Should Competition Policy Promote Happiness?*, 81 *FORDHAM L. REV.* 2575, 2602 (2013); see also Alan J. Meese, *Reframing the (False?) Choice Between Purchaser Welfare and Total Welfare*, 81 *FORDHAM L. REV.* 2197, 2199 (2013) ("The choice between competing definitions of 'consumer welfare' is ultimately a normative one; economic theory cannot make the choice for us.").



In Part II of this Article, I begin by considering what we might mean when we use the words “variety” and “choice.” I suggest that, at least when they are used in the context of welfare economics, variety and choice might have one or all of three meanings—the number of choices, the differences between the choices, or the uses that can be made from a given choice. In markets for differentiated products, which are most markets, all three types of variety are present. In Part III, I then consider how a merger’s effects on variety can be evaluated consistent with welfare economics. Part III.A considers welfare economics as a normative framework of analysis and its ability to evaluate variety effects, while Part III.B specifically considers the more limited tools of partial equilibrium analysis. Part IV then considers an alternative to normative welfare economics, specifically, the Capability Approach. The Capability Approach is a normative framework for evaluating individual well-being. Under the Capability Approach, well-being is assessed in terms of an individual’s capability to achieve the kind of life that the individual has reason to value. Importantly, this is an assessment of what an individual is able to be and to do. This stands in contrast to welfare economics, which evaluates well-being in terms of an individual’s utility, as determined from the individual’s subjective perspective. Finally, I conclude that, to the extent the agencies’ ability to evaluate variety effects is limited and they, therefore, continue to rely exclusively on the price model, the language relating to variety effects should be struck from the Guidelines. I further conclude that, with respect to an alternative framework, the Capability Approach could be adopted and applied in limited cases, specifically when a merger concerns a fundamental capability.

## II. WHAT DO WE MEAN BY VARIETY?

Before considering how we can account for “variety” effects, we must first consider what we might mean when we use the word “variety.” Scholars, courts, and policymakers often use “variety” interchangeably with “choice” or use “variety” as a way of describing or evaluating the nature of the choice set.<sup>27</sup> The two concepts are certainly related. When we use the word variety we could be trying to say something about the *number* of choices we have. Alternatively, we might use the word to describe not simply the number of choices, but rather the *differences* between the choices. A third possibility is that we use the word to describe our *uses* of, and *experiences* with, the item chosen after the initial choice has been made. These different conceptions of variety—variety as the number of choices, variety as the differences between choices, and variety as

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<sup>27</sup> See, e.g., *supra* note 18 and accompanying text; *supra* note 21 and accompanying text; *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9, 20 (D.D.C. 1999) (“To provide a viable substitute for Windows, another PC operating system would need a large and varied enough base of compatible applications to reassure consumers that their interests in variety, choice, and currency would be met to more-or-less the same extent as if they chose Windows.”).

the different consumption experiences—are each explored further below. To be sure, there are other ways of understanding variety and choice. But the three ways discussed further below fairly encompass the possible meanings attributed to the word by the Guidelines, as well as by those engaging in the debate about variety’s role in merger review.

#### A. *Variety as the Number of Choices*

Most simply, variety could be understood as an issue of *how many choices* a consumer has with respect to a given purchasing decision. This can be a matter of how many different brands there are in a given market—are there two brands of cereal, or 200? But variety might also be an issue of how many firms are competing in the market. If there are only two brands of cereal but each is controlled by a different firm, we might think that consumers have more choice than they would if there were 200 brands of cereal that were all controlled by the same firm.

The easiest way to understand this conception of variety and to isolate it from other conceptions is to imagine a number of firms competing in a market in which the products are in all respects exactly the same. This describes a market for undifferentiated products, which is the model for perfect competition. A market for a commodity, such as wheat, is an example.

If products are entirely undifferentiated, then we might wonder whether this truly offers consumers “choice.” The answer to that question will turn on what underlying value or values “choice” is meant to serve. One value that could be served by having a number of firms competing in the market by offering identical products is the freedom from oppressive power, whether from the government or from private industry. One of the virtues of atomistic competition is the virtue of a market economy: it serves as a constraint on the power of government because the provision of goods through private industry operating in a market economy prevents the need for the government to provide such goods. The act of choosing, in contrast to having the choice made by the government, recognizes the autonomy of the individual. It is this value that ranks the market above the government with respect to the provision of goods, even if the government could do so at the perfectly competitive price.

But perfectly competitive, undifferentiated markets can constrain power in another sense. Having a number of firms competing in the market ensures that no one producer is too powerful. This in turn has the additional benefit of curtailing the need for government regulation aimed at keeping the power of such firms in check. Indeed, the fact that competition serves to keep prices low *and* to give consumers choice *and* to constrain the power of government and private industry is the source of some of the debate over the goals of the antitrust laws.<sup>28</sup>

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<sup>28</sup> For example, in 1965, Professors Harlan Blake and William Jones wrote,

These same values—constraining the power of the government, limiting the power of private industry, and minimizing the need for government regulation—are also served by having a number of firms offering products that are *not* in all respects exactly the same—i.e., “differentiated products.” But

Competitive markets are fundamental to the American system not simply because they encourage economic efficiency and material progress, but also because they advance several extremely important political objectives. The great virtue of the competitive process is that it makes possible the attainment of a viable economy with a minimum of political interference. . . .

The overriding purpose of antitrust policy, we believe, is to maintain an economy capable of functioning effectively without creating an abundance of supervisory political machinery. . . .

. . . Reliance on competitive markets accommodates our interest in material well-being with our distrust of concentrations of political and economic power in private or governmental hands.

. . . .

Another political objective of antitrust is the enlargement of individual liberty. . . . In the absence of strong countervailing considerations, we favor freedom of action and the wide range of choices that freedom implies. The competitive system dovetails nicely with this sentiment . . . in providing maximum freedom of opportunity for consumers. . . . The freedom of the individual as a consumer is obviously curtailed if his choice is limited to the offerings of a monopolist or of a few sellers acting in concert. . . . [I]t was the purpose of the antitrust laws to expand the range of consumer choice . . . by encouraging the formation of markets of numerous buyers and sellers . . . .

Harlan M. Blake & William K. Jones, *In Defense of Antitrust*, 65 COLUM. L. REV. 377, 382–84 (1965).

In 1979, just prior to his appointment as an FTC Commissioner, law professor Robert Pitofsky echoed these sentiments:

The issue among most serious people has never been whether non-economic considerations should outweigh significant long-term economies of scale, but rather whether they had any role to play at all, and if so, how they should be defined and measured.

. . . It is bad history, bad policy, and bad law to exclude certain political values in interpreting the antitrust laws. By “political values,” I mean, first, a fear that excessive concentration of economic power will breed antidemocratic political pressures, and second, a desire to enhance individual and business freedom by reducing the range within which private discretion by a few in the economic sphere controls the welfare of all. A third and overriding political concern is that if the free-market sector of the economy is allowed to develop under antitrust rules that are blind to all but economic concerns, the likely result will be an economy so dominated by a few corporate giants that it will be impossible for the state not to play a more intrusive role in economic affairs.

This view is not at odds with the central beliefs of both the “Chicago” and “Harvard” schools that the major goals of antitrust relate to economic efficiency. . . . Because interpretations that exclude all but economic concerns have lately become so influential, however, it is important to explain why economic concerns, although properly of paramount importance, should not control exclusively.

Robert Pitofsky, *The Political Content of Antitrust*, 127 U. PA. L. REV. 1051, 1051–52 (1979) (footnotes omitted).

unlike competition among firms offering homogenous goods, competition among firms offering differentiated goods additionally serves to meet consumers' heterogeneous preferences. Product differentiation is discussed further in Part B, below.

### *B. Variety as Product Differentiation*

Variety is perhaps used more commonly to mean *differences in products or product features*, including quality. Consumers' preferences, as they relate to both goods within a product class and bundles of goods across product classes, may be as diverse as consumers themselves. Consumer A wants Coca-Cola, while Consumer B wants Pepsi. But even an individual consumer's preferences may vary over time. Consumer A wants Coca-Cola today, but a month from now, she wants Pepsi. Firms respond to the heterogeneity of consumer preferences by differentiating their products from their competitors' products with the expectation that the goods they offer will more closely align with the preferences of at least a subset of consumers than do the already-existing products in the market.

Products can be differentiated from other products in the market in any and all of a number of ways. Perhaps most obviously, a firm can differentiate its products from others in the market through its selection of the physical attributes of the product, such as the color, style, or manufacture material. But products may be differentiated in a number of additional ways. Sellers have the option of constructing their products from more or less durable materials that effect the need to replace the product (or its parts) monthly, yearly, or even less regularly, for example.<sup>29</sup> The retail stores in which the products are sold or the plants in which they are manufactured can be located in more or less convenient locations, as reflected in travel time and transportation costs. Sellers can also differentiate their products with respect to the level of service they offer—ranging from full-service to no service. Finally, a firm can distinguish its product by promoting a certain image of the firm, the product, or even the consumer through advertising campaigns, branding, packaging, and the distribution channels the firm employs.<sup>30</sup>

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<sup>29</sup> The durability of a product may very well depend on the manufacturing material. In this respect, product durability and product attributes may not really be two different dimensions of product variety.

<sup>30</sup> To be sure, other things could be added to the list describing the manner in which products may be differentiated. For example, producers may differentiate their products by offering more or less customization of their products. See Richard E. Caves & Peter J. Williamson, *What Is Product Differentiation, Really?*, 34 J. INDUS. ECON. 113, 122–23 (1985) (analyzing product differentiation in five dimensions, one of which is the degree to which users may specify the product's attributes). E.H. Chamberlin described product differentiation even more expansively as “[a]nything which makes buyers prefer one *seller* to another,” and this included “personality, reputation, convenient location, or the tone of his shop.” EDWARD HASTINGS CHAMBERLIN, *THE*

### C. *Variety as Consumption Experience*

Rather than defining variety by reference to the product, we could instead define variety by reference to the consumer's *consumption experience*. This conception of variety recognizes that consumers can create variety by changing the way they consume a product.<sup>31</sup> For example, a consumer of soft drinks could buy Coca-Cola, Pepsi, or both to serve exactly the same purpose (e.g., to quench thirst); if the consumer's preferences change day-to-day, her consumption might change day-to-day as well, but still, it is the product (Coca-Cola versus Pepsi), rather than the consumption experience, that defines the variety. In contrast, the consumer could inject variety into the experience by changing the purpose for, or manner in which, the soft drink is consumed. She could exclusively drink Coca-Cola, but drink it to quench her thirst, provide caffeine, or to serve as a component of a mixed drink. She could drink her Coca-Cola before, during, or after dinner. And she can mix it with water, club soda, or alcohol.<sup>32</sup>

In some instances, we might view consumer-created variety as nothing more than a form of product differentiation (for example, Coca-Cola with water is simply "less sweet Coca-Cola"). But, importantly, the thing that distinguishes this sort of variety from the others is that it is the consumer—not the producer—who creates the variety herself. Consumer-created variety explains the robust community of consumers that "repurpose" or "upcycle" existing products into new products.<sup>33</sup> One of the more interesting examples of

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THEORY OF MONOPOLISTIC COMPETITION 8 (6th ed. 1950) (emphasis added). Elsewhere he explained that differentiation could be based on any number of characteristics, including

exclusive patented features; trade-marks; trade names; peculiarities of the package or container[]; or singularity in quality, design, color, or style. It may also exist with respect to the conditions surrounding its sale. In retail trade . . . these conditions include such factors as the convenience of the seller's location, the general tone or character of his establishment, his way of doing business, his reputation for fair dealing, courtesy, efficiency, and all the personal links which attach his customers either to himself or to those employed by him.

*Id.* at 56. The list, if not endless, certainly is extensive. But the four manners of differentiation described above—whether alone or in combination with another—capture most (if not all) of the ways products may be differentiated from each other.

<sup>31</sup> See generally Donald R. Lehmann, *Customer Reactions to Variety: Too Much of a Good Thing?*, 26 J. ACAD. OF MARKETING SCI. 62 (1998).

<sup>32</sup> See *id.* at 62–63.

<sup>33</sup> See Steven Kurutz, *A Place for Repurposed Goods*, N.Y. TIMES, Oct. 27, 2011, at D3 (reporting about Hipcycle.com, a website devoted "to bring[ing] the 'growing but fragmented' upcycling industry together in one place" on a retail website analogous to Amazon.com). See generally HACKED GADGETS, <http://hackedgadgets.com> (last visited Sept. 7, 2014); HIPCYCLE, <http://hipcycle.com> (last visited Sept. 7, 2014); MY REPURPOSED LIFE, <http://www.myrepurposedlife.net> (last visited Sept. 7, 2014); UPCYCLE US, <http://upcycleus.blogspot.com> (last

consumer created variety is chronicled on the website IKEA Hackers, which showcases consumers' efforts to "hack" IKEA products—modifying, repurposing, and transforming the raw materials of IKEA products into their own creations,<sup>34</sup> such as a coffee table made from magazine files.<sup>35</sup> Variations in the consumer's consumption experiences depend to a great extent on the versatility of the underlying product.<sup>36</sup>

\* \* \*

In many markets, all three dimensions of variety—variety as the number of choices, variety as the differences between choices, and variety as the different consumption experiences—are at play. For example, markets for differentiated products offer consumers a number of products; produced and sold by a number of different sellers; consisting of different features, characteristics, and levels of quality; and sold at varying prices. Moreover, in most (if not all) cases, the consumer can vary the way she uses the product as well.

So which of these conceptions of variety do the Guidelines contemplate? The Guidelines address variety in terms of the differences between choices—i.e., product differentiation. The clearest statement as to the Guidelines' conception of variety is contained in their comment regarding increases in variety.<sup>37</sup> The Guidelines explain, "a merger may increase variety by encouraging the merged firm to reposition its products to be more

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visited Sept. 7, 2014); VINTAGE FINDS, <http://repurposedvintagefinds.blogspot.com> (last visited Sept. 7, 2014).

<sup>34</sup> See generally IKEA HACKERS, <http://www.ikeahackers.net> (last visited Sept. 7, 2014). The website describes itself as "a site about modifications on and repurposing of IKEA products. Hacks, as we call it here, may be as simple as adding an embellishment, some others may require power tools and lots of ingenuity." See *About*, IKEA HACKERS, <http://www.ikeahackers.net/about.html> (last visited Sept. 7, 2014).

<sup>35</sup> The "KNUFF transformable coffee table" was considered the best "hack" of 2012. It is composed of four magazine files oriented horizontally, rather than vertically, attached to each other, and set atop the legs of a stool. See *We Have It! The KNUFF Transformable Coffee Table Is the IKEA Hack of 2012*, IKEA HACKERS (Jan. 19, 2013), <http://www.ikeahackers.net/2013/01/we-have-it-the-knuff-transformable-coffee-table-is-the-ikea-hack-of-2012.html>.

<sup>36</sup> See Lehmann, *supra* note 31, at 62.

<sup>37</sup> See 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 10, § 6.4. In addition to within the Section of the Guidelines that address variety explicitly, "variety" is used a number of times throughout the Guidelines. See *id.* § 1 ("Overview") ("Enhanced market power can also be manifested in non-price terms and conditions that adversely affect customers, including reduced product quality, reduced product variety, reduced service, or diminished innovation."); *id.* § 2.2.1 ("Sources of Evidence") ("Explicit or implicit evidence that the merging parties intend to raise prices, reduce output or capacity, reduce product quality or variety, [or] withdraw products or delay their introduction . . . can be highly informative in evaluating the likely effects of a merger."); *id.* § 10 ("Efficiencies") ("[P]urported efficiency claims based on lower prices can be undermined if they rest on reductions in product quality or variety that customers value.").

differentiated from one another.”<sup>38</sup> This also appears to be the conception of variety (and of choice) motivating Averitt and Lande. They explain that, within their choice model, “[a]n antitrust violation can . . . be understood as an activity that unreasonably restricts the totality of *price and nonprice choices* that would otherwise have been available.”<sup>39</sup>

While “nonprice choices” directly suggests variety among product features and characteristics—i.e., differentiated products—“price . . . choices” does so indirectly. Variability in price is a characteristic of markets for differentiated products, but is not a feature of markets for undifferentiated products, which are perfectly competitive and therefore characterized by uniformity in price.<sup>40</sup> Moreover, a recent article by Professor Lande similarly

<sup>38</sup> 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 10, § 6.4.

<sup>39</sup> Averitt & Lande, *Using the “Consumer Choice” Approach to Antitrust Law*, *supra* note 14, at 182 (emphasis added); *see also id.* at 190 (suggesting that price fixing is illegal in part because it eliminates “price choices”); *id.* at 252 n.277 (suggesting that a vertical retail price restraint that reduces “consumers’ price choices” would be anticompetitive under the consumer choice model).

<sup>40</sup> In some places, Averitt and Lande use the phrase “price options” instead of “price choices.” *See, e.g.,* Averitt & Lande, *Using the “Consumer Choice” Approach to Antitrust Law*, *supra* note 14, at 185, 187 & n.35, 189. FTC Commissioner and law professor Joshua Wright and Judge Douglas Ginsburg interpret Averitt and Lande’s use of this phrase to mean not simply variance in price, but rather variance in pricing practices. *See* Wright & Ginsburg, *supra* note 19, at 2411–13. For example, according to Wright and Ginsburg’s interpretation of Averitt and Lande’s model, consumers suffer a cognizable harm when they are not given the choice between a pricing scheme that offers variable prices (widgets for \$5, \$6, or \$7) and a pricing scheme that offers uniform prices (widgets for \$6) because to deprive consumers of one or the other is to deny consumers of “price options” or, as Wright and Ginsburg rephrase it, “pricing options.” *See id.* Of course, choosing one—for example, a variable pricing scheme—necessarily precludes the option of the other—a uniform pricing scheme—so that it is logically impossible to maintain the option of both pricing schemes after the initial choice in schemes is made. For this reason, I am of the opinion that understanding their model as one interested in product differentiation is the better interpretation.

To be sure, Averitt and Lande’s model is less than fully clear. And at least some of the confusion is due to the fact that they either fail to appreciate or fail to acknowledge that, as discussed above in the text, perfectly competitive markets for undifferentiated products do not offer “price choice.” Thus, when Averitt and Lande condemn *all* price fixing—including price fixing in markets for undifferentiated products—because it deprives consumers of price choice, it suggests that Averitt and Lande have something other than price variance in mind. *See* Averitt & Lande, *Using the “Consumer Choice” Approach to Antitrust Law*, *supra* note 14, at 182; *see also* Lande, *A Traditional and Textualist Analysis*, *supra* note 22, at 2392 (“If you examine every type of antitrust law violation—from price fixing to predation—and ask what they have in common, the answer is that they all significantly restrict consumer choice. They all significantly and artificially distort or diminish the *choices* that otherwise would be offered by the free market.” (emphasis added)). This appears to be at least part of the basis for Wright and Ginsburg’s interpretation. *See* Wright & Ginsburg, *supra* note 19, at 2413. However, when read in the context of Averitt and Lande’s description of some of the other components of their model, and Lande’s most recent writings, in particular, it appears that Averitt and Lande have in mind price variance in markets for differentiated products, which price fixing in such markets can neutralize.

suggests that his conception of variety and consumer choice tracks the definition of product differentiation. Lande writes that “the 2010 Merger Guidelines have warmly embraced a consumer choice approach,”<sup>41</sup> and then quotes extensively from the sections of the revised Guidelines that address variety, including the portion of the text that makes clear that the Guidelines equate variety with product differentiation.<sup>42</sup> It seems, then, that the type of choice with which the consumer choice approach is concerned is the choice that is offered through product differentiation.

In conceiving of variety in terms of product differentiation, the Merger Guidelines, as well as Averitt and Lande, implicitly, if not explicitly, capture all three conceptions of variety. If product differentiation is the conception of variety (and choice) at stake, the question then becomes, how can we account for the effects of a merger that is likely to result in a change in this sort of variety? I answer this question in Part III, below, by considering, first, the tools of normative welfare economics and, then, the more limited tools of partial equilibrium analysis.

### III. WELFARE ECONOMICS

The debate over the goals of the antitrust laws and the meaning of the consumer welfare standard consists of many disagreements among economists, scholars, and practitioners. One of the disagreements is over the meaning of “welfare.” Some scholars argue that the word should account for more than simply the price and output effects of firm conduct.<sup>43</sup> Proponents of this view have unfortunately not been entirely clear whether they are arguing for a full, multifaceted, economy-wide analysis, consistent with a normative welfare

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See, e.g., Averitt & Lande, *Using the “Consumer Choice” Approach to Antitrust Law*, *supra* note 14, at 185; Lande, *A Traditional and Textualist Analysis*, *supra* note 22, at 2399.

<sup>41</sup> Lande, *A Traditional and Textualist Analysis*, *supra* note 22, at 2399.

<sup>42</sup> *Id.* at 2399–400.

<sup>43</sup> See, e.g., Lande, *A Traditional and Textualist Analysis*, *supra* note 22 (arguing that the legislative history of the antitrust laws does not suggest that efficiency was a primary goal and furthermore that a better understanding of the antitrust laws is to prevent restraints on “consumer choice”); Lande, *Consumer Choice as the Ultimate Goal of Antitrust*, *supra* note 14 (arguing that the objective of the antitrust laws is to protect consumer choice); *id.* at 505 (“[T]he antitrust statutes can all best be explained in terms of protecting the supply of choices in the market.”); Rudolph J. Peritz, *A Counter-History of Antitrust Law*, 1990 DUKE L.J. 263, *passim* (arguing that the antitrust laws were passed, in part, to protect property rights by preventing wealth transfers); Stucke, *supra* note 26, at 2575 (arguing that antitrust law should account for “economic, social, and democratic values” rather than merely consumer surplus); *id.* at 2602 (“The literature [on happiness] suggests that competition policy in a post-industrial wealthy country would be more efficacious (in terms of increased well-being) in promoting economic, social, and democratic values, rather than simply promoting a narrowly defined consumer welfare objective. . . . [C]ompetition policy is not inherently limited to one economic goal, such as maximizing consumer surplus.”).



economics framework, or are instead proposing that some values serve as an independent basis for evaluating firm conduct. For example, in a recent article, one scholar, Professor Maurice Stucke, argues that antitrust law should promote “economic, social, and democratic values”<sup>44</sup> without specifying further what the constitutive values are, how antitrust law should undertake to promote them, and, in doing so, what normative approach lawmakers should adopt.<sup>45</sup> To the extent these scholars are arguing in favor of a multifaceted, economy-wide analysis, their arguments may fairly be characterized as ones in favor of an analysis consistent with normative welfare economics. How variety may be incorporated into a merger review process that is consistent with normative welfare economics is considered in Part III.A, below. But to the extent these

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<sup>44</sup> Stucke, *supra* note 26, at 2602. At times, Stucke refers to values not part of the conventional analysis as political, moral, and social objectives. *See, e.g., id.* at 2578, 2580, 2602, 2611, 2637.

<sup>45</sup> Stucke surveys a vast body of literature, spanning many fields, including economic theory, philosophy, behavioral economics, and cognitive psychology, without clarifying whether his argument is positive, normative, or some combination of the two. *Compare* Stucke, *supra* note 26, at 2581–85 (referring to arguments by St. Thomas Aquinas, Aristotle, and Bentham and concluding that antitrust law *should* maximize well-being), *with id.* at 2588–93 (discussing findings in behavioral economics that suggest the conventional economic methodology for calculating well-being through the use of revealed preferences is deficient, but that other methodologies, such as self-assessment, present challenges as well). The literature Stucke reviews additionally spans multiple *normative* conceptions of well-being that theoretically do not entirely overlap, and may, in specific cases, result in determinations that are at odds with each other. Indeed, he appears to characterize the differences as merely ones of measurement, rather than appreciating that the differences among measurement methodologies track the differences in the underlying normative frameworks. *See, e.g., id.* at 2591–92 (discussing various methodologies for measuring well-being, including subjective evaluations that are consistent with welfare economics, and objective measurements, that stand in contrast to welfare analysis).

As a result, it is not entirely clear what normative framework Stucke thinks should be adopted. At times, he appears to be arguing in favor of a more complete, multi-faceted welfare analysis. *See, e.g., id.* at 2578 (suggesting that one of the issues contemplated by his article is “whether competition policy should promote a multidimensional welfare function that includes subjective well-being”); *id.* at 2581 (accepting that promoting well-being, as defined by Bentham, is the proper goal of government and concluding that maximizing well-being should therefore be an objective of competition policy); *id.* at 2585 (suggesting that “welfare” (whether consumer or total) should be the objective of antitrust law).

But in other instances, Stucke contemplates conceptions of well-being that are not embraced by welfare economics and, in fact, are offered as alternatives to, and critiques of, welfare economics. *See, e.g., id.* at 2587 & n.59 (citing JOSEPH E. STIGLITZ ET AL., REPORT BY THE COMMISSION ON THE MEASUREMENT OF ECONOMIC PERFORMANCE AND SOCIAL PROGRESS 14–15, 151–53 (2009), available at [http://www.stiglitz-sen-fitoussi.fr/documents/rapport\\_anglais.pdf](http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf)); *see also id.* at 2578–79 & n.16 (referencing and citing the report by Stiglitz, Sen, and Fitoussi); *id.* at 2592 (referring to “objective measures” of well-being that stand in contrast to welfare economics, which measures well-being from the perspective of the individual); *id.* at 2598–99 & n.146 (noting concerns with utilitarianism).

scholars are arguing that certain values—whether “economic, social, and democratic”; “consumer choice”; or something else—should provide an independent basis for evaluating firm conduct, their arguments are alternatives to welfare analysis and will require an entirely new paradigm. An alternative normative framework and how it might account for mergers that effect a change in variety is considered in Part IV, which follows the discussion of welfare economics.

Finally, others point out that antitrust law does not consider the economy-wide effects of firm conduct. Rather, it only considers the effects in the “relevant market” using the tools of partial equilibrium analysis.<sup>46</sup> They suggest that the goals of antitrust law should accordingly be confined to those consistent with a partial equilibrium analysis. Moreover, apparently concerned that “welfare” connotes goals beyond the purview of antitrust law,<sup>47</sup> they argue that the word “welfare” is descriptively inaccurate, and urge that “surplus” be used instead.<sup>48</sup> How variety may be incorporated into a merger review analysis that remains confined to the tools of partial equilibrium analysis is considered in Part III.B, below.

#### A. *Welfare Economics as a Normative Framework*

Within the normative framework of welfare economics, “welfare” is equated with individual well-being, measured in terms of the individual’s “utility,” as assessed from the individual’s subjective perspective.<sup>49</sup> Therefore, “consumer welfare” should arguably mean “consumer well-being,” with “well-being” taking its meaning from normative welfare economics.<sup>50</sup>

Assessing “welfare” consistent with welfare economics requires an assessment of *all* the benefits and harms a consumer experiences. Louis Kaplow and Steven Shavell give their account of welfare analysis in *Fairness Versus Welfare*.<sup>51</sup> They explain:

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<sup>46</sup> See Orbach, *supra* note 26, at 140–41; see also *infra* notes 60–65 and accompanying text.

<sup>47</sup> See Orbach, *supra* note 26, at 136 (“[Bork’s] terminological confusion would not have mattered if the question were simply one of playing word police and insisting that economic terms be used correctly. The larger problem is that the term ‘consumer welfare’ can be used to promote ideas that have questionable economic merit, while dismissing the genuine economic objections to those ideas.”).

<sup>48</sup> See *id.* at 138–41; see also *id.* at 164 (“The methodology of antitrust law cannot maximize consumer welfare. It may maximize consumer surplus or total surplus.”).

<sup>49</sup> See LOUIS KAPLOW & STEVEN SHAVELL, *FAIRNESS VERSUS WELFARE* 18–19 (2002).

<sup>50</sup> See Orbach, *supra* note 26, at 138.

<sup>51</sup> KAPLOW & SHAVELL, *supra* note 49. Kaplow and Shavell’s framework is by no means uncontroversial. Nonetheless, their framework is useful for understanding the ways in which variety can be accounted for consistent with normative welfare economics.

The notion of well-being used in welfare economics is comprehensive in nature. It incorporates in a positive way everything that an individual might value—goods and services that the individual can consume, social and environmental amenities, personally held notions of fulfillment, sympathetic feelings for others, and so forth. Similarly, an individual's well-being reflects in a negative way harms to his or her person and property, costs and inconveniences, and anything else that the individual might find distasteful. Well-being is not restricted to hedonistic and materialistic enjoyment or to any other named class of pleasures and pains. The only limit on what is included in well-being is to be found in the minds of individuals themselves, not in the minds of analysts.<sup>52</sup>

Thus, changes in welfare are evaluated from the individual's perspective. However, at least as theorized by Kaplow and Shavell, welfare analysis not only considers individual preferences as they exist today,<sup>53</sup> but also the effect of imperfect information on individual preferences,<sup>54</sup> the potential for the law to change individuals' preferences and therefore affect their well-being in the long-run,<sup>55</sup> and the long-run effect of satisfying individuals' preferences on the well-being of both the individual and others.<sup>56</sup> Finally, one dimension of welfare economics explored by Kaplow and Shavell that is worth noting is that it recognizes that individuals' tastes may also be a source of well-being.<sup>57</sup>

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<sup>52</sup> *Id.* at 18–19 (footnotes omitted); *see also id.* at 403 (“To the extent that anything is actually important to individuals, welfare economics encompasses it by definition: Everything that is thought to be socially relevant because it has value to members of society is included in the measure of social welfare.”).

<sup>53</sup> *See id.* at 418; *see also id.* at 23 n.14 (arguing in favor of defining well-being in terms of an individual's actual preferences).

<sup>54</sup> *Id.* at 410–11 (“[W]hen such imperfections [in information] are present, individuals' actions may fail to advance their own well-being, and welfare economic evaluation depends directly on individuals' well-being. Therefore, proper welfare economic analysis takes these imperfections into account.”).

<sup>55</sup> *Id.* at 413–18. Kaplow and Shavell explain that in evaluating the welfare of a policy that may change individuals' preferences, “individuals' *actual* preferences are used: their preexisting ones for as long as they remain in existence and their new ones after their preferences have changed.” *Id.* at 418 (emphasis added); *see also id.* at 421–22 (“The idea of an analyst substituting his or her own conception of what individuals should value for the actual views of the individuals themselves conflicts with individuals' basic autonomy and freedom.”).

<sup>56</sup> *Id.* at 427–28.

<sup>57</sup> *Id.* at 21, 431–36. Because welfare economics accounts for *all* respects in which a legal policy affects individuals' well-being, there are a number of other things that could be relevant to a welfare analysis. Indeed, there are likely an infinite number of things that could be relevant. Nonetheless, Kaplow and Shavell consider a few things that are noteworthy. Specifically, they indicate that welfare economics accounts for concerns regarding the distribution of income. *See id.* at 28–31. Furthermore, they note that “when behavioral economics, cognitive psychology,

The appeal of welfare economics as a normative framework is that it accounts for *anything* that enhances or diminishes individual well-being. Theoretically, then, it can account for the heterogeneity of an individual's preferences—i.e., that from purchase-to-purchase, depending on the context, circumstances, or simply the caprice of the individual, the individual's preferences may change (Coca-Cola today, Pepsi tomorrow). Furthermore—again, at least theoretically—welfare economics can account for the extensive behavioral economics, consumer research, and cognitive psychology literature relating to consumer choice and variety, much of which actually suggests that consumers do not always experience more variety as welfare enhancing.<sup>58</sup>

In the context of merger review, these things can be accounted for, together with any changes in variety that the merger may effect (whether the introduction of a new product or the elimination of an existing product). To be sure, the complexity of a complete welfare analysis poses a practical problem, and overcoming it necessitates that we improve our methods of measurement so that we can make more complete evaluations in the future.<sup>59</sup> But as a theoretical matter, when considering a merger's effect on variety, welfare economics as a normative framework can account for some of the multiple dimensions in which variety affects well-being. Therefore, to the extent scholars such as Stucke and Lande are arguing for a more thorough analysis, the tools of normative welfare economics are theoretically equipped for the task. Whether such an analysis can practically be done is another matter. A partial-equilibrium analysis, discussed in Part III.B, below, may prove more practical by limiting the breadth of the inquiry.

### B. Partial-Equilibrium Analysis

Antitrust law, however, does not evaluate firm conduct for its economy-wide effects. It only evaluates firm conduct for its effects to consumer welfare in the “relevant” market—i.e., the market in which the

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evolutionary biology, sociology, or anthropology yield valid insights, they should be incorporated in legal policy analysis.” *Id.* at 462 (footnote omitted).

<sup>58</sup> See, e.g., Rémi Desmeules, *The Impact of Variety on Consumer Happiness: Marketing and the Tyranny of Freedom*, 2002 ACAD. MKTG. SCI. REV. 1, 9 (“We propose that there exist[s] a point in the amount of variety where variety alone brings about doubt and regret avoidance mechanisms. After the point of regret, the positiveness of consumption experiences goes down because of stress, frustration, disengagement from the process, or anticipated/experienced regret caused by heightened expectations and/or an inability to conduct all the evaluations and calculations (mathematical or otherwise) necessary to arrive at a choice.”); Sheena S. Iyengar & Mark R. Lepper, *When Choice is Demotivating: Can One Desire Too Much of a Good Thing?*, 79 J. PERSONALITY & SOC. PSYCHOL. 995, 1003 (2000) (“[A]lthough having more choices might appear desirable, it may sometimes have detrimental consequences for human motivation.”). See generally BARRY SCHWARTZ, *THE PARADOX OF CHOICE: WHY MORE IS LESS* (2004) (arguing that too much choice may be detrimental to well-being).

<sup>59</sup> See KAPLOW & SHAVELL, *supra* note 49, at 403–04, 450, 457–61.

product of the firm or firms competes<sup>60</sup>—using the tools of partial equilibrium analysis.

Nor does antitrust law consider any of the findings from behavioral economics that cast doubt on the assumption that an individual's revealed preferences are her "true" preferences. Nor does it consider whether—and if so, how—the law may change an individual's preferences such that the law is capable of enhancing the individual's well-being in the long-run. Rather, antitrust law is decidedly committed to rational choice theory.<sup>61</sup> Rational choice theory assumes, among other things, that individuals make rational decisions based on their preferences, which are revealed when the individual makes actual purchasing decisions in the market.<sup>62</sup> Moreover, it assumes that individual's preferences remain stable.<sup>63</sup> These assumptions cause antitrust law to exclude consideration of things such as the dynamic relationship between consumer preferences, the law, the offerings in the market, and the welfare effects.

For example, consider the market for tobacco products. Antitrust law would condemn firm conduct that was likely to cause the price of tobacco products to increase because those higher prices harm the consumers that purchase and use tobacco products. Antitrust law does not evaluate whether an increase in the price of tobacco products may actually cause consumers to change their purchasing decisions and ultimately their preferences, such that consumers switch from consuming tobacco products to consuming other goods and services that may actually enhance their welfare in the long-run.<sup>64</sup>

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<sup>60</sup> See Orbach, *supra* note 26, at 140–41. Supreme Court precedent also precludes what is referred to as cross-market balancing—i.e., offsetting the anticompetitive effects in one market with procompetitive effects in another market. See *United States v. Phila. Nat'l Bank*, 374 U.S. 321, 370–71 (1963). This is apparent in the Guidelines, which explain that the agencies evaluate a merger for its effects only on the consumers in the relevant market. See 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 10, § 10. However, the most recent revisions indicate that "the Agencies in their prosecutorial discretion will consider efficiencies not strictly in the relevant market[]" if the efficiencies are "inextricably linked" with the relevant market and any remedy aimed at the anticompetitive harm would eliminate the efficiencies, as well. *Id.*

<sup>61</sup> See Joshua D. Wright, *The Antitrust/Consumer Protection Paradox: Two Policies at War with Each Other*, 121 YALE L.J. 2216, 2225 (2012) ("[A]ntitrust law has traveled an institutional journey that has resulted in its deep commitment not merely to economic analysis generally but specifically to *rational choice* microeconomics." (emphasis added)).

<sup>62</sup> *Id.* at 2221.

<sup>63</sup> *Id.* at 2221, 2223.

<sup>64</sup> The example of the difference between partial equilibrium analysis and an economy-wide analysis as it relates to the market for tobacco products is taken from Professor Orbach, but Orbach characterizes the two different analyses as "surplus" analysis and "welfare" analysis, respectively. Moreover, Orbach's welfare methodology appears to differ from Kaplow and Shavell's in at least one important respect. Whereas Kaplow and Shavell strictly require that welfare always be evaluated from the individual's perspective, taking into account the possibility of adaptive preferences, KAPLOW & SHAVELL, *supra* note 49, at 416–18; see also *infra* note 132

Partial equilibrium analysis measures consumer welfare in terms of “consumer surplus.” “Consumer surplus” is the difference between how much a consumer is willing to pay for a good or service and how much the consumer actually pays.<sup>65</sup> Changes in price effect changes in consumer surplus. As the price of a given product increases, consumer surplus decreases because the difference between willingness to pay and price decreases. For example, if a consumer is willing to pay \$3 for a cup of coffee, but she only pays \$2, she experiences a \$1 “surplus” or a \$1 enhancement to her welfare. However, if the price of the cup of coffee increases to \$2.50, the surplus she experiences decreases to only \$.50. Because price increases result in a reduction in consumer surplus, changes in price are one of the principle concerns of the antitrust laws.

The tools of partial equilibrium analysis are well-suited for evaluating the welfare effects of firm conduct as it relates to price or output in an isolated market, especially in markets for undifferentiated products. Recall that undifferentiated products are products that are in all respects *exactly* the same, and the market for such products is the basis for the model of perfect competition. In perfectly competitive markets for undifferentiated products, the relationship between price, supply, and welfare is clear: As the number of suppliers and therefore the supply increases, price decreases, which in turn effects an increase in welfare; conversely, restrictions in output and increases in price result in a diminution of welfare.

However, in the case of markets for differentiated products, the theoretical relationship between variety, price, and welfare effects is more complex. As discussed further below, more variety may, but will not necessarily, increase welfare (whether consumer or total<sup>66</sup>), depending on a number of factors. Therefore, we cannot presume that a merger that will enable the merged entity to introduce a new product will make consumers better off. Conversely, we cannot presume that a merger that will likely cause the merged entity to eliminate a product will make consumers worse off. Ultimately, determining whether more or less variety is welfare enhancing is an empirical matter, and doing the empirical analysis may prove difficult.

and accompanying text (explaining adaptive preferences), Orbach appears to evaluate consumer welfare from the arguably objective policymaker’s perspective, Orbach, *supra* note 26, at 140 (quoting N. GREGORY MANKIW, *PRINCIPLES OF ECONOMICS* 151–56 (5th ed. 2009)).

<sup>65</sup> Consumer surplus is a basic economic concept that is usually depicted by a graph with an upward-sloping supply curve intersecting a downward sloping demand curve, and a horizontal line representing the price at the point where the supply and demand curves intersect. Consumer surplus is the area of the triangle created by the demand curve and the horizontal line representing price; “producer surplus” is the area of the triangle created by the supply curve and the horizontal line representing price. Consumer surplus and producer surplus together make up “total surplus.” See Orbach, *supra* note 26, at 139–40 & fig.1.

<sup>66</sup> For an explanation of the difference between “consumer welfare” and “total welfare,” see *supra* note 25 and accompanying text.

Offering consumers more options increases the likelihood that consumers will find something that more closely aligns with their preferences. However, economist E.H. Chamberlin theorized that product differentiation comes at two costs—higher prices and excess capacity, which reduce consumer and total welfare, respectively, assuming everything else remains constant. First, product differentiation, in any respect, enables a firm to have some control over the prices it charges in the same way that monopolists have control over price.<sup>67</sup> This feature of product differentiation led Chamberlin to describe competition in differentiated markets as “monopolistic competition.” If a firm can control price, it can charge a *supracompetitive* price—i.e., a price above the price that would obtain in a purely competitive market—resulting in a misallocation of resources (i.e., allocative inefficiency). Second, supracompetitive prices translate into supracompetitive profits, which attract new firms and incentivize them to enter the market. Upon their introduction into the market, new products will capture some of the demand for the incumbent products. This will continue, Chamberlin suggested, until supracompetitive profits are no longer possible. Equilibrium will eventually be reached at a price that is higher than the price that would obtain under pure competition—i.e., at a price higher than marginal cost—and the scale of production of each firm will necessarily be smaller, preventing each firm from realizing economies of scale, which will result in excess capacity.<sup>68</sup> Thus, contrary to conventional economic theory that posits that an increase in supply results in a *decrease* in price, in markets for differentiated products, an increase in supply can result in an *increase* in price.

Chamberlin’s theory gave rise to an extensive theoretical literature extending, revising, and challenging the initial theory.<sup>69</sup> Although an in-depth

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<sup>67</sup> Chamberlin explained,

Anything which makes buyers prefer one seller to another, be it personality, reputation, convenient location, or the tone of his shop, differentiates the thing purchased to that degree, for what is bought is really a bundle of utilities, of which these things are a part. The utilities offered by all sellers to all buyers must be identical, otherwise individual sellers have a degree of control over their individual prices.

CHAMBERLIN, *supra* note 30, at 8.

<sup>68</sup> See *id.* at 74–100; see also R. Rothschild, *The Theory of Monopolistic Competition: E.H. Chamberlin’s Influence on Industrial Organisation Theory over Sixty Years*, 14 J. ECON. STUD. 34, 35–36 (1987) (summarizing Chamberlin’s theory).

<sup>69</sup> See, e.g., Avinash K. Dixit & Joseph E. Stiglitz, *Monopolistic Competition and Optimum Product Diversity*, 67 AM. ECON. REV. 297 (1977); Nicholas Kaldor, *Market Imperfection and Excess Capacity*, 2 ECONOMICA 33 (1935); Michael Spence, *Product Selection, Fixed Costs, and Monopolistic Competition*, 43 REV. ECON. STUD. 217 (1976) [hereinafter Spence, *Product Selection*]. See generally Rothschild, *supra* note 68 (reviewing the literature).

Many of the challenges to Chamberlin’s theory were lodged against the great number of assumptions upon which his theory hinged. See, e.g., Kaldor, *supra*, at 43 (“What [Chamberlin] does not seem to be aware of is the degree of unreality involved in his initial assumptions; and

examination of this literature is beyond the scope of this Article, a few generalizations can be made.

First, although Chamberlin's theory posits that a monopolistically competitive market will yield higher prices and generate excess capacity, it is very difficult to draw any general conclusions about the welfare effects.<sup>70</sup> Whether welfare is enhanced or diminished turns on whether consumers prefer lower prices to less variety, which is unclear because, as Nicholas Kaldor noted, consumers are "never . . . in a position to choose between these alternatives: they are offered either the one or the other, but never both."<sup>71</sup>

In other words, comparing prices in an undifferentiated market for a given product with prices in a hypothetically analogous differentiated market is like comparing apples and oranges. Consumers may or may not be worse off. It depends not only on price, but also on consumers' preferences as revealed through their purchasing behavior. But we are unable to discern consumers' preferences for one sort of market or another because consumers are never presented with the choice between a homogenous product offered at a perfectly competitive price and the analogous differentiated product offered at a potentially higher price in a monopolistically competitive market. As a result, we cannot determine whether consumers are better or worse off from product differentiation.

A simple example is illustrative. Imagine a market for ice cream cones. The only flavor offered is apple and the competitive price equal to marginal cost is \$2.00. There are two types of consumers, consumers of Type A and consumers of Type B. Type A consumers really like apple ice cream and would be willing to pay as much as \$3.00 for an apple ice cream cone. Type B consumers, on the other hand, like apple ice cream fine enough, but not quite as much as Type A consumers; in fact, Type B consumers would really prefer orange ice cream cones instead. Accordingly, Type B consumers are only willing to pay \$2.50 for an apple ice cream cone, but would be willing to pay as much as \$3.00 for an orange ice cream cone if it were offered. In the market for

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the extent to which his main conclusions are dependent on those assumptions."); Rothschild, *supra* note 68, at 34 ("[Chamberlin's theory] rests upon assumptions which describe a world for which there is no empirical analogue: it seems, in its original form at least, to be a solution in search of a problem.").

<sup>70</sup> See Kaldor, *supra* note 69, at 50 ("It is extremely difficult to deduce any general conclusions from [his observations] as to the effect of the generation of 'excess capacity' upon economic welfare in general—in whatever arbitrary way this concept may be defined.").

<sup>71</sup> *Id.*; see also Dixit & Stiglitz, *supra* note 69, at 297 ("It is useful to think of the question as one of quantity versus diversity."); Rothschild, *supra* note 68, at 47 ("In essence, whenever diversity is demanded, marginal cost pricing ceases to be a basis for welfare judgments, and comparisons of the state of affairs in large group equilibrium [i.e., equilibrium among competitors in monopolistically competitive markets] . . . with the prescriptions of the perfectly competitive model are therefore meaningless.").



apple ice cream cones, Type A and Type B consumers experience a \$1.00 and \$.50 surplus, respectively.

If prices for apple ice cream cones were to increase from \$2.00 to \$2.25, we would have no trouble concluding that both Type A consumers and Type B consumers would be worse off because both would be paying more than they paid before the price increase. Type A's surplus would decrease from \$1.00 to \$.75, while Type B's surplus would decrease from \$.50 to \$.25. Together, they experienced a \$.50 reduction in welfare.

But assume instead that prices for apple ice cream do not simply increase. Instead, in response to consumer demand, a competitor enters the market and begins offering orange ice cream cones at a price of \$2.25. This causes Type B consumers to switch from apple to orange, which in turn results in a reduction of demand for apple ice cream and an increase in the price for apple ice cream from \$2.00 to \$2.25. Type A consumers are now doing slightly worse off, experiencing a \$.25 reduction in surplus, but Type B consumers are doing slightly better off, experiencing a \$.25 boost in surplus. When considered together, their changes in surplus cancel each other out. Thus, we cannot necessarily conclude that higher prices (i.e., prices above marginal cost) in differentiated markets make consumers worse off, even though we can conclude that a price increase of the same magnitude in an undifferentiated market will make consumers worse off. These effects are summarized in Table 1, below.

**Table 1**

		Apple Only i.e., undifferentiated market		Orange Introduced i.e., differentiated market	
		$P_{\text{apple}} =$ \$2.00	$P_{\text{apple}} =$ \$2.25	$P_{\text{apple}} =$ \$2.25	$P_{\text{orange}} =$ \$2.25
Type A	Willingness To Pay	\$3.00	\$3.00	\$3.00	
	Surplus	\$1.00	\$.75	\$.75	
Type B	Willingness To Pay	\$2.50	\$2.50		\$3.00
	Surplus	\$.50	\$.25		\$.75
Aggregate Consumer Surplus		\$1.50	\$1.00	\$1.50	

Whether consumers are better off as a result of product differentiation will turn on the strength of their preferences. Thus, if Type B consumers had a very strong preference for orange ice cream cones, so much so that they were willing to pay \$3.50, the introduction of orange ice cream cones would increase their surplus to \$1.25 and aggregate consumer surplus to \$2.00, and we could therefore conclude that product differentiation likely made consumers in the aggregate better off. If, however, Type B consumers' preferences for orange ice cream were such that they were only willing to pay some amount short of \$3.00, consumers in the aggregate would likely be worse off.

A more dynamic analysis would additionally consider whether consumers prefer to vary their consumption experience. For example, on Monday, Type B consumers might prefer apple ice cream and therefore are willing to pay relatively less for orange ice cream, but days later, on Friday, they may be in the mood for a change and willing to pay relatively more for orange ice cream. An undifferentiated market of apple-only ice cream would not provide Type B consumers with the ability to vary their consumption in this way, and a simple price comparison between the apple-only ice cream cone market and the apple and orange ice cream cone market does not capture any boost consumers experience from being able to change their consumption experiences day-to-day.<sup>72</sup>

The second generalization we can make is that Chamberlin's theory, together with the extensions, revisions, and challenges to his theory, effected a change in the way we conceive the "ideal" market. If we start from the reasonably conservative assumption that consumers' preferences are heterogeneous, both because consumers, themselves, are heterogeneous and also because even a single consumer may have heterogeneous preferences over time, then a theory of perfect competition in undifferentiated markets does not accord with any reality. More realistically, we should incorporate the defining characteristics of monopolistic competition into the conventional theory of competition. Thus, we should understand higher than perfectly competitive prices—i.e., firms pricing above marginal cost rather than at marginal cost—and excess capacity as features of competition, rather than flaws. In a later work, Chamberlin reflected:

[S]ince what people want—an elaborate system of consumers' preferences—is the starting point in welfare economics, their wants for a heterogeneous product would seem to be as fundamental as anything could be. Heterogeneity as between

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<sup>72</sup> Moreover, whether society, in the aggregate, is better or worse off from the introduction of orange ice cream cones priced above marginal cost versus a world in which there are only apple ice cream cones priced at marginal cost will depend on whether any "boost" in consumer surplus outweighs the harm that ensues from the generation of excess capacity. But, again, a simple comparison of prices in the apple-only market with prices in the apple and orange market does not tell us anything about the welfare effects.

producers is synonymous with the presence of monopoly; therefore monopoly is necessarily a part of the welfare ideal.<sup>73</sup>

This rethinking led a number of economists away from considering the first best optimum (price equals marginal cost) to analyzing a second best optimum in a monopolistically competitive market, subject to the constraint that firms earn nonnegative profits (price above marginal cost). One strain of the literature specifically analyzed this second best optimum for the Chamberlinian model market—i.e., for a monopolistically competitive market in which there is free entry and in which firms could easily reposition their products.<sup>74</sup> The solution necessarily requires some trade-off among variety, price, and cost. The relevant studies then compared the socially optimal solution to the monopolistically competitive equilibrium.<sup>75</sup> In other words, they did an “apples to apples” comparison, rather than the sort of “apples to oranges” comparison discussed above. This purely theoretical approach, however, has ultimately been inconclusive.<sup>76</sup> From this theoretical literature, the third generalization we can make is that we cannot presume that the market will make the trade-offs in such a way as to yield the optimal amount of variety. Depending on a number of factors, the market may yield too much, too little, or not the right type of variety.

From society’s perspective (i.e., a total welfare analysis), a new product should be introduced if the net addition to consumer surplus—i.e., the increase in consumer satisfaction—outweighs the fixed costs of introducing it. Optimal variety is reached when the net addition to consumer surplus equals fixed costs, or in other words, when a product’s marginal contribution to

<sup>73</sup> E.H. Chamberlin, *Product Heterogeneity and Public Policy*, 40 AM. ECON. REV. 85, 86 (1950). Chamberlin further commented,

The fact that equilibrium for the firm when products are heterogeneous normally takes place under conditions of falling average costs of production has generally been regarded as a departure from ideal conditions, these latter being associated with the minimum point on the curve; and various corrective measures have been proposed. However, if heterogeneity is part of the welfare ideal, there is no prima facie case for doing anything at all.

*Id.* at 89.

<sup>74</sup> See Spence, *Product Selection*, *supra* note 69, at 234; Michael Spence, *Product Differentiation and Welfare*, 66 AM. ECON. REV. 407, 411 (1976) [hereinafter Spence, *Product Differentiation and Welfare*]; Dixit & Stiglitz, *supra* note 69, at 301.

<sup>75</sup> See Spence, *Product Selection*, *supra* note 69, at 217; Spence, *Product Differentiation and Welfare*, *supra* note 74, at 411–13; Dixit & Stiglitz, *supra* note 69, at 300–02.

<sup>76</sup> Timothy F. Bresnahan, *Comment on Jerry A. Hausman, Valuation of New Goods Under Perfect and Imperfect Competition*, in THE ECONOMICS OF NEW GOODS 237 (Timothy F. Bresnahan & Robert J. Gordon eds., 1997) [hereinafter Bresnahan, *Comment on Jerry A. Hausman*] (“There is a large and stimulating theoretical literature. It treats the question of whether the market, working through the free entry of new products, will supply too many marginal varieties. The purely theoretical approach is ultimately inconclusive.” (footnote omitted)).

surplus equals zero.<sup>77</sup> A few economists, Michael Spence, as well as Avinash Dixit and Joseph Stiglitz, have shown that, generally speaking, in a market in which there is free entry, easy product repositioning, and no strategic behavior, the socially optimal solution subject to the profitability constraint is obtained when price is above marginal cost. This is “roughly”—but not exactly—the monopolistically competitive equilibrium.<sup>78</sup> “[T]he best that can be said,” Spence cautions, “is that the equilibrium approximates the constrained optimum.”<sup>79</sup>

Whether the equilibrium yielded by the market is a better or worse approximation of the optimum will depend on a number of market forces, including fixed costs and the degree of substitutability among products. The influence of these factors on product selection reflects the fact that, in determining whether to introduce a new product, a firm does not consider the gains to consumer surplus and compare them against its fixed costs; rather, it considers only its *own* gains (i.e., expected profits)—some of which will come at the expense of the incumbents and are therefore merely a transfer among producers—and whether those gains will exceed its fixed costs. Under certain circumstances, market forces will tend to produce too little variety.<sup>80</sup> For example, Spence, using hypothetical data, calculates various market equilibria and compares them against their respective social optima, and those calculations indicate that monopolistic competition is likely to produce suboptimal variety where fixed costs are high and own-price elasticities and cross-elasticities<sup>81</sup> of demand are low,<sup>82</sup> that is, when other products are

<sup>77</sup> Spence, *Product Differentiation and Welfare*, *supra* note 74, at 408–09.

<sup>78</sup> *Id.* at 411 (“[T]he monopolistically competitive equilibrium has the qualitative features of the solution to the problem of maximizing the surplus subject to the condition that all products are profitable.”); Spence, *Product Selection*, *supra* note 69, at 234 (“Given the profitability constraint under a market system, deviations from marginal cost pricing are called for. Monopolistically competitive pricing may not be too far from the second best. In some special instances, it is the second best.”); *cf.* Dixit & Stiglitz, *supra* note 69, at 301 (“[W]e have a rather surprising case where the monopolistic competition equilibrium is identical with the optimum constrained by the lack of lump sum subsidies.”).

<sup>79</sup> Spence, *Product Differentiation and Welfare*, *supra* note 74, at 411.

<sup>80</sup> *Id.* at 413; Spence, *Product Selection*, *supra* note 69, at 234; *see also* Dixit & Stiglitz, *supra* note 69, at 304, 308 (concluding that the monopolistically competitive market will yield too little variety when consumers’ utility functions have variable elasticity).

<sup>81</sup> Own-price elasticity of demand measures the percentage change in the quantity demanded of a good or service that results from a 1% change in the price of that same good or service. When demand is “elastic,” consumers are very responsive to price; the result is that a small increase in price of a good will lead to a relatively large decrease in the quantity demanded of that good. *See* JEANNE S. RINGEL ET AL., *THE ELASTICITY OF DEMAND FOR HEALTH CARE: A REVIEW OF THE LITERATURE AND ITS APPLICATION TO THE MILITARY HEALTH SYSTEM* 9–10 (2005), available at [http://www.rand.org/content/dam/rand/pubs/monograph\\_reports/2005/MR1355.pdf](http://www.rand.org/content/dam/rand/pubs/monograph_reports/2005/MR1355.pdf). In contrast, cross-price elasticity of demand measures the percentage change in the

relatively poor substitutes. However, Spence's calculations also indicate that the market will produce *too much* variety where own-price elasticities and cross-elasticities of demand are high,<sup>83</sup> that is, when other products are relatively good substitutes. Moreover, in other research, Spence shows that because, in determining whether to introduce a new product, sellers only consider their own gains, but do not account for consumers' gains (i.e., consumer surplus), the market will not produce the right sort of variety—i.e., it will not yield socially-valuable products.<sup>84</sup>

What this means is that, as a purely theoretical matter, we cannot predict how a *change* in variety will affect total welfare. The best we can do is make some broad generalizations that certain market structures make it more likely that a competitor will enter a differentiated market in pursuit of a portion of the incumbent competitors' supracompetitive profits, and that certain conditions make it more likely that the consumer surplus generated will be insufficient to outweigh the costs of entry, resulting in too much variety from a welfare economics perspective. More specifically, we can conclude that too much product variety is likely when entry into the market is open; consumers are relatively fickle, resulting in a high degree of substitutability among products; profit margins are relatively high; the growth in sales resulting from the introduction of a new product is relatively modest; and fixed costs are relatively substantial.<sup>85</sup>

When the change in variety is occasioned by a merger, the analysis is complicated further. The theoretical models discussed above assume that each firm in the relevant market produces only one product. The practical consequences of a merger, however, may be that a single firm ends up controlling more than one product in the relevant market. This may come about in one of two ways. First, a merger may bring two or more products that

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quantity demanded of a good or service that results from a 1% change in the price of a different good or service. *Id.* at 11.

<sup>82</sup> Spence, *Product Differentiation and Welfare*, *supra* note 74, at 413; *see also* Spence, *Product Selection*, *supra* note 69, at 234.

<sup>83</sup> Spence, *Product Selection*, *supra* note 69, at 234; *see also* Steven C. Salop, *Monopolistic Competition with Outside Goods*, 10 BELL J. ECON. 141, 149–54 (1979) (constructing a model that yields excess variety).

<sup>84</sup> *See* Spence, *Product Selection*, *supra* note 69, at 234; Spence, *Product Differentiation and Welfare*, *supra* note 74, at 408. Spence further suggests that the market will be biased against products for which the potential consumers have “a highly variegated set of willingnesses to pay for [them], so that there is a small group with a high willingness to pay, and then rapidly declining reservation prices after that.” Spence, *Product Differentiation and Welfare*, *supra* note 74, at 410; *see also* Spence, *Product Selection*, *supra* note 69, at 225 (“It is . . . extreme variegation in the valuation of the product by consumers that makes survival difficult.”).

<sup>85</sup> *See, e.g.*, Spence, *Product Differentiation and Welfare*, *supra* note 74, at 234; *see also* F.M. SCHERER & DAVID ROSS, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 606 (3d ed. 1990) (summarizing the literature). Scherer and Ross note, however, that “[t]here is little systematic evidence on how frequently this constellation of conditions occurs.” *Id.* at 606.

compete in the same relevant market under the common control of a single, merged entity. Alternatively, a merger may enable the merged entity to develop a *new* product that competes in the same relevant market as an existing product. In either case, if the products compete closely with each other, the merged firm may have an incentive either to raise prices on a pre-existing product or to eliminate the pre-existing product entirely because some of the sales lost as a result of the price increase or product elimination will be diverted to one of the merged entity's other products.<sup>86</sup>

These potential responses of the merged firm do not all affect the consumer welfare component of the analysis in the same manner. While the introduction of a new product will increase consumer welfare, higher prices or the elimination of a product will decrease consumer welfare.<sup>87</sup> Thus, even if the consumer welfare standard equates “consumer” with “purchaser” and we therefore analyze only the consumer surplus effects,<sup>88</sup> we cannot generally conclude that a merger that promises to introduce a new product—which in some cases, we could characterize as a new innovation<sup>89</sup>—will necessarily

<sup>86</sup> *But see generally* Amit Gandhi et al., *Post-Merger Product Repositioning*, 56 J. INDUS. ECON. 49 (2008). Gandhi et al. construct a “price-location model”—i.e., a model of competition among a merged firm and the non-merging firms that accounts for competition both in terms of price and a product’s position (or location) within the market based on the product’s features. *Id.* at 50–51. Their model predicts that, post-merger, a merged firm has an incentive to further differentiate products that were otherwise close substitutes, rather than to maintain the products as close substitutes and increase their prices. *Id.* at 51. This causes the non-merging firms to reposition their products such that they engage in more intense price competition with other non-merging firms, while the merged firm faces less intense price competition from the non-merging firms; this, in turn, reduces any incentive the merged firm had to raise prices. *Id.* The end result is that the non-merging firms may be worse off because they are less able to raise prices following a price increase by the merged firm. *Id.* However, consumers may be (but will not necessarily be) better off for two reasons. First, any price increases may be smaller. *Id.* Second, consumers may experience more variety in the market that better suits their preferences. *Id.* at 60.

It is possible, however, that repositioning will increase “travel costs”—i.e., it may result in products that are further from, rather than closer to, consumers’ actual preferences—in which case, the consumer welfare effects may be negative. In addition, it is generally quite expensive and time consuming for a firm to reposition an existing product; therefore, any benefits to consumers may not materialize for quite some time, and in the short run, the consumer welfare effects may actually be negative. *See id.* at 66.

<sup>87</sup> *See* Jennifer E. Sturiale, *Compulsory Licensing of Intellectual Property As Merger Remedy: A Decision-Theoretic Approach*, 72 LA. L. REV. 605, 622 (2012).

<sup>88</sup> *See supra* note 25 and accompanying text.

<sup>89</sup> A new product, or a new “variety,” is not necessarily a new innovation. Recall that products are differentiated if they are different from each other in any manner, including the time at which the product is available or the location from which you can purchase it. Thus, a firm can offer a new variety of a product by offering it at different times or locations. For example, a movie theater that shows movies at night can introduce a new “variety” by beginning to show movies during the day, but we would hardly call the idea to offer movies during the day an “innovation.” Nonetheless, in some cases, a new variety will arise because of innovation, small

enhance consumer welfare. Conversely, we cannot generally conclude that a merger that is likely to cause the merged entity to eliminate a product will necessarily diminish consumer welfare. The only prediction of the consumer welfare effects we can make from the theoretical literature alone is in the case where a product is introduced or eliminated and *everything else, including the number, nature, and prices of other products, remains the same*. In that case, we know that all of the consumers who prefer the product introduced or eliminated, will be made better off upon the product's introduction or worse off upon its elimination. That everything else would remain the same, however, is unrealistic, to say the least. And as soon as we introduce the more realistic possibility of additional new products (whether less or more expensive) or a change in the price or features of the already-existing products, we are no longer able to make any sort of prediction with respect to the harms or benefits to consumers. An attempt to assess the total welfare effects by balancing the benefits to consumers against the producer's fixed costs only complicates matters further.

That the theoretical literature is inconclusive as to whether variety will be under-, over-, or optimally provided in monopolistically competitive markets would not pose a problem if we could simply implement a theoretical model and actually do the necessary empirical analyses. Then, if a merger was likely to effect a change in product variety, we could evaluate whether that change was likely to enhance or diminish welfare (whether total or consumer). But doing the empirical analysis may prove difficult. It requires the estimation of demand for both potential and actual products.<sup>90</sup> There is a growing and

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though it may be. For example, the introduction of Apple Cinnamon Cheerios into a market that already contained regular Cheerios and Honey Nut Cheerios could be characterized either as the introduction of a new variety or as the introduction of an innovation. See Wright, *supra* note 61, at 2243–44 (“There is now a robust literature establishing that even apparently small innovations, such as the introduction of a new brand variant (e.g., Apple Cinnamon Cheerios) can generate large consumer benefits.” (footnote omitted)). This likely explains why “innovation” and “product variety” are addressed in the same section of the 2010 Horizontal Merger Guidelines. See 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 10, § 6.4; cf. Michael Abramowicz, *An Industrial Organization Approach to Copyright Law*, 46 WM. & MARY L. REV. 33, 37–38 (2004) (suggesting that copyright policies that ultimately result in a reduction in works may nonetheless increase welfare); Christopher S. Yoo, *Copyright and Product Differentiation*, 79 N.Y.U. L. REV. 212, 260–64 (2004) (explaining, in the context of copyright, that a new work will not necessarily enhance welfare).

<sup>90</sup> Spence, *Product Differentiation and Welfare*, *supra* note 74, at 413. Moreover, even if we could do the necessary estimations before evaluating the welfare effects, we would need to confront a number of other complexities. For example, Spence's model, as well as Dixit and Stiglitz's model, assumes that in a monopolistically competitive market, competitors will enter until profits are driven down to zero. See Spence, *Product Selection*, *supra* note 69, at 230; see Dixit & Stiglitz, *supra* note 69, at 300. This ignores the “integer problem”—i.e., the problem posed by the fact that some resources, such as the number of firms entering the market, are indivisible. The integer problem dictates that the number of firms entering the market be discrete (e.g., 110) rather than continuous (e.g., 110.5). But profits may be driven to zero when there is a

promising literature that attempts to estimate the demand curves of new goods in order to quantify their welfare contributions.<sup>91</sup> These emerging tools, however, are by no means uncontroversial; as with many, if not most, tools of economics, they make a number of assumptions, any of which may be challenged.<sup>92</sup> Moreover, the benefit of this literature would seem to be limited to the extent that the tools developed rely importantly on data generated *after* the product's introduction.<sup>93</sup> Most mergers, however, are reviewed *before* their consummation,<sup>94</sup> requiring the agencies to assess the likely welfare effects without the benefit of such data. This leaves the parties and the agencies with the difficult task of estimating demand curves for new products before there is even a single sale. Regardless, to the extent the agencies rely on these sorts of econometric tools, they should make it explicit so that the tools can be scrutinized, critiqued, and improved by other experts, scholars, and practitioners.

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continuous number of firms in the market. If this is the case, profits will not be completely competed away because, given that a firm will not enter the market unless it can cover its fixed costs, the market will stop short of yielding the number of firms suggested by the industry equilibrium. See Salop, *supra* note 82, at 155 (“Because the technology is characterized by an indivisible fixed cost, the number of brands must be integer-valued. Therefore, free entry need not lead to a zero-profit equilibrium . . .”); see Kaldor, *supra* note 69, at 42–43 (explaining that the indivisibility of resources prevents “the complete elimination of ‘profits’”).

Further complexities are presented when entry into the market is blockaded and firms are locked-in, such that they cannot easily reposition their products. Finally, antitrust's methodology of partial equilibrium analysis generally ignores problems associated with solving for the “second best” optimum. See Jonathan B. Baker, *Economics and Politics: Perspectives on the Goals and Future of Antitrust*, 81 *FORDHAM L. REV.* 2175, 2178 n.9 (2013).

<sup>91</sup> See, e.g., Jerry A. Hausman & Gregory K. Leonard, *The Competitive Effects of a New Product Introduction: A Case Study*, 50 *J. INDUS. ECON.* 237 [hereinafter Hausman, *The Competitive Effects of a New Product*] (estimating the change in consumer welfare from the introduction of Kleenex Bath Tissue); Jerry A. Hausman, *Valuation of New Goods Under Perfect and Imperfect Competition*, in *THE ECONOMICS OF NEW GOODS* 209 (Timothy F. Bresnahan & Robert J. Gordon eds., 1997) [hereinafter Hausman, *Valuation of New Goods*] (estimating the change in consumer welfare from the introduction of Apple Cinnamon Cheerios); Amil Petrin, *Quantifying the Benefits of New Products: The Case of the Minivan*, 110 *J. POL. ECON.* 705 (2002) (estimating the change in consumer welfare from the introduction of the minivan).

<sup>92</sup> See Bresnahan, *Comment on Jerry A. Hausman*, *supra* note 76, at 237–38; Jerry A. Hausman, Reply to Prof. Bresnahan 1 (July 21, 1997) (unpublished manuscript), available at [http://www.stanford.edu/~tbres/Unpublished\\_Papers/reply%20to%20bresnahan.pdf](http://www.stanford.edu/~tbres/Unpublished_Papers/reply%20to%20bresnahan.pdf); Timothy F. Bresnahan, *The Apple-Cinnamon Cheerios War: Valuing New Goods, Identifying Market Power, and Economic Measurement 1–2* (unpublished manuscript) [hereinafter Bresnahan, *The Apple-Cinnamon Cheerios War*], available at [http://www.stanford.edu/~tbres/Unpublished\\_Papers/hausman%20recomment.pdf](http://www.stanford.edu/~tbres/Unpublished_Papers/hausman%20recomment.pdf).

<sup>93</sup> See, e.g., Hausman, *The Competitive Effects of A New Product*, *supra* note 91, at 242–43; Hausman, *Valuation of New Goods*, *supra* note 91, at 216–20; Petrin, *supra* note 91, at 713–16.

<sup>94</sup> 15 U.S.C. § 18a (2012); see *Premeger Notification and the Merger Review Process*, FED. TRADE COMMISSION, <http://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws/mergers/premerger-notification-and-merger> (last visited Sept. 7, 2014).



Consistent with the theoretical literature, the Guidelines recognize that reductions in variety “may or may not” make consumers worse off.<sup>95</sup> On the one hand, the Guidelines acknowledge that reductions in variety can “lead to the efficient consolidation of products when variety offers little in value to customers.”<sup>96</sup> On the other hand, they recognize that the elimination of a product can make consumers worse off.<sup>97</sup>

Notably, the Guidelines do not explain how to determine when consumers are likely to be made better or worse off from the trade-off between cost, price, and variety. This is no doubt due to the fact that we cannot make such a prediction from the theoretical literature. The best we can do is identify when a firm has an incentive to eliminate a product using the same analytical tools introduced in the Guidelines and used by the agencies to determine if a merger is likely to result in a price increase.<sup>98</sup> However, these tools cannot tell us anything about the welfare effects of the product’s elimination.

It is perhaps not surprising, then, that in reviewing mergers for their supposed effects on product variety, the agencies have fallen back onto examining the likely price effects. For example, as mentioned in the Introduction, in 2011, AT&T sought to acquire T-Mobile. At the time of the merger, AT&T and T-Mobile were respectively the second and fourth largest

<sup>95</sup> See 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 10, § 6.4.

<sup>96</sup> See *id.*

<sup>97</sup> See *id.*

<sup>98</sup> The 2010 Horizontal Merger Guidelines introduce a measure—the “value of diverted sales” (VDS)—to determine the extent to which the products of merging firms compete. See *id.* at 21. The value of diverted sales measures the “boost” to profits the combined firm will experience as a result of increased sales for one product following a price increase on the competing product. The value of diverted sales can be compared to total revenue lost as a result of the price increase. This measure is referred to as the “gross upward pricing pressure index” or the “GUPPI.” See Shapiro, *supra* note 15, at 24.

We can express the value of diverted sales and the GUPPI formulaically, as follows:

(1) VDS to Product B =  $X_B * (P_B - C_B)$ , where  $X_B$  = number of units diverted to Product B from Product A; price =  $P_B$ ; and incremental cost =  $C_B$ .

(2) Lost Revenues =  $(X_{A1} - X_{A2}) * P_A$ , where, prior to the price increase on Product A, the number of units of Product A =  $X_{A1}$ ; after the price increase, the number of units of Product A =  $X_{A2}$ ; and the price of Product A =  $P_A$ .

(3) VDS as a proportion of lost revenue, or “GUPPI” =  
 $[X_B * (P_B - C_B)] / [(X_{A1} - X_{A2}) * P_A]$ .

The value of diverted sales is considered “small” and does not give rise to competitive concerns if the GUPPI is no more than 5% of the lost revenues. See Shapiro, *supra* note 15, at 23–24 & nn.32–33.

The elimination of a product is analogous to an infinite increase on the product’s price. GUPPI can therefore identify instances in which a combined firm is likely to have an incentive to eliminate one of the products of the merging partners because of the combined firm’s ability to recapture some of those lost sales by increased sales for the remaining product.

providers of mobile wireless telecommunication services nationally,<sup>99</sup> and if the merger had been consummated, the merged entity would have been the largest wireless carrier in the United States.<sup>100</sup> AT&T and T-Mobile, together with Verizon and Sprint, made up the “Big Four” providers of mobile wireless telecommunication services, accounting for 90% of the service connections for mobile wireless devices in the United States.<sup>101</sup> T-Mobile was considered a “low-priced,” “value” rival and a market “challenger”; it provided a “unique combination of services, plans, devices, network coverage, features, and award-winning customer service” and provided these features less expensively than the other three competitors.<sup>102</sup> In contrast, AT&T offered more expensive services that were comparable to the services and prices offered by Verizon and Sprint.<sup>103</sup> Nonetheless, AT&T and T-Mobile competed most closely with each other.<sup>104</sup> The DOJ’s complaint challenging the merger indicated that “[d]ocuments produced by AT&T and T-Mobile establish that a significant portion of customers who ‘churn’ from AT&T switch to T-Mobile, and vice versa. This shows a significant degree of head-to-head competition between the two companies . . . .”<sup>105</sup>

Among the reasons the DOJ offered for challenging the merger was that “customers of mobile wireless telecommunications services likely will face . . . less product variety . . . .”<sup>106</sup> The DOJ claimed,

By eliminating T-Mobile as an independent competitor, the proposed transaction likely will reduce innovation and product variety—a serious concern discussed in Section 6.4 of the *Horizontal Merger Guidelines* . . . . For example, post-merger, AT&T will no longer offer T-Mobile’s lower-priced data and voice plans to new customers or current customers who upgrade their service. Consequently, T-Mobile as a lower-priced option will be eliminated from the market, resulting in higher prices for a significant number of consumers.<sup>107</sup>

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<sup>99</sup> AT&T Complaint, *supra* note 1, ¶¶ 7–8.

<sup>100</sup> *Id.* ¶ 10.

<sup>101</sup> *Id.* ¶ 2.

<sup>102</sup> *Id.* ¶¶ 3, 27, 38.

<sup>103</sup> *See id.* ¶ 27.

<sup>104</sup> *See id.* ¶ 37.

<sup>105</sup> *Id.*

<sup>106</sup> *Id.* ¶ 3; *see also id.* ¶ 33 (“AT&T’s acquisition of T-Mobile would eliminate the important price, quality, product variety, and innovation competition that an independent T-Mobile brings to the marketplace.”).

<sup>107</sup> *Id.* ¶ 38.

As the DOJ's complaint makes clear, the merger also would have effectively resulted in higher prices for at least some customers. The effective price increase for those consumers would have provided an independent basis for challenging the merger. In addition, the merger was independently challengeable on a number of other well-established grounds, including that it would have reduced the number of competitors from four to three and therefore would have caused all the relevant markets to be more highly concentrated.<sup>108</sup> This, in turn, would have made coordination of prices among the remaining three firms more likely.<sup>109</sup> Moreover, the merger would have eliminated the head-to-head competition between AT&T and T-Mobile, which may have enabled the merged firm to raise prices unilaterally.<sup>110</sup>

It is not clear, then, that the revisions incorporated in the Guidelines relating to variety have effected any change in the methodology or manner in which the agencies review mergers for anticompetitive effects.<sup>111</sup> At bottom, price effects appear to remain the primary concern.

#### IV. AN ALTERNATIVE TO WELFARE ECONOMICS: THE CAPABILITY APPROACH

Some scholars have argued that antitrust law should account for more than simply the price and output effects of firm conduct.<sup>112</sup> Most notably for purposes of evaluating variety effects, Averitt and Lande have proposed the "consumer choice approach" to antitrust law—a model that, as explained by Lande, includes a "heightened concern" with, among other things, variety.<sup>113</sup> As discussed above, it is not entirely clear whether Lande and others are simply arguing in favor of a more thorough analysis of firm conduct consistent with normative welfare economics or whether they are essentially arguing in favor of a new paradigm. To the extent their arguments are an appeal for a new paradigm, they have not clearly articulated the nature of the alternative normative framework they are proposing. Without a clearer statement of their proposals, it is difficult to evaluate how antitrust law could account for variety under these alternative frameworks. Nonetheless, considering whether it is even possible for antitrust law to evaluate firm conduct consistent with any framework other than the one provided by welfare economics is a useful task. At the very least, it forces us indirectly to reflect on the virtues and

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<sup>108</sup> *Id.* ¶ 36.

<sup>109</sup> *Id.*

<sup>110</sup> *Id.* ¶ 37.

<sup>111</sup> See also Verifone Complaint, *supra* note 17, ¶ 8 (alleging that the acquisition would "inevitably lead to higher prices, inferior service, a reduction in the variety of products sold, and reduced innovation").

<sup>112</sup> See, e.g., Stucke, *supra* note 26, at 2580 ("[C]ompetition policy never arose to promote only one economic objective, such as consumer surplus.").

<sup>113</sup> Lande, *A Traditional and Textualist Analysis*, *supra* note 22, at 2393.

shortcomings of welfare economics. While there may be multiple alternatives, this Part begins to consider one that is likely the most fully theorized alternative: the Capability Approach, as developed primarily by economist Amartya Sen.

Generally speaking, the Capability Approach is a normative framework for evaluating individual well-being that is an alternative to the framework provided by normative welfare economics. While normative welfare economics evaluates individual well-being in terms of the individual's utility, as assessed from the individual's subjective perspective,<sup>114</sup> the Capability Approach evaluates individual well-being in terms of an individual's capability to achieve the kind of life that the individual has reason to value. Importantly, this is an assessment of what an individual is able to be and to do,<sup>115</sup> rather than an assessment of an individual's wealth and access to certain commodities or her subjective well-being. Accordingly, the Capability Approach is a critique of, among other things, both John Rawls's theory of justice, which focuses on "primary goods," as well as of normative welfare economics.<sup>116</sup>

In describing the Capability Approach, Sen distinguishes "capabilities" from "functionings." "Functionings" describes "the various things a person may value doing or being."<sup>117</sup> In contrast, an individual's capability "refers to the alternative combinations of functionings that are feasible for her to achieve."<sup>118</sup> To illustrate the difference between functionings and capabilities, Sen considers two individuals who are starving:

[A]n affluent person who fasts may have the same functioning achievement in terms of eating or nourishment as a destitute person who is forced to starve, but the first person does have a different "capability set" than the second (the first *can* choose to eat well and be well nourished in a way the second cannot).<sup>119</sup>

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<sup>114</sup> KAPLOW & SHAVELL, *supra* note 49, at 18–19. For a brief discussion of some of the criticism of welfare economics, see *infra* notes 129–31 and accompanying text.

<sup>115</sup> See MARTHA C. NUSSBAUM, *CREATING CAPABILITIES: THE HUMAN DEVELOPMENT APPROACH* 18 (2011) ("[The Capability Approach] holds that the key question to ask, when comparing societies and assessing them for their basic decency or justice, is, 'What is each person able to do and to be?'").

<sup>116</sup> See AMARTYA SEN, *DEVELOPMENT AS FREEDOM* 55–74 (1999); see also NUSSBAUM, *supra* note 115, at 17–18 ("Sen proposes . . . the capability framework as the best space within which to make comparisons of life quality, and to show why it is superior to utilitarian and quasi-Rawlsian approaches.").

<sup>117</sup> SEN, *supra* note 116, at 75 (footnote omitted); see also Amartya Sen, *Capability and Well-Being*, in *THE QUALITY OF LIFE* 31 (Martha C. Nussbaum & Amartya Sen eds., 1993).

<sup>118</sup> SEN, *supra* note 116, at 75.

<sup>119</sup> *Id.*

By focusing the concern on individual capabilities—i.e., the *set* of valuable functionings, rather than functionings alone—the Capability Approach is importantly about an individual’s freedom to *choose* to live one sort of life or another.<sup>120</sup> But it is not concerned with the mere number of choices,<sup>121</sup> or the differences among the choices, or even with the mere act of choosing itself. Rather, it is concerned with the nature of the elements that make up the range of choices and the extent to which they do or do not enable an individual to function in valuable and important ways. In this respect, the conception of variety and choice underlying the Capability Approach stands in contrast to the conceptions we explored earlier. As an evaluative approach, it assesses and compares an individual’s well-being vis-à-vis her capability set.

In order to do this sort of evaluation, we must identify what functionings, and therefore what capabilities, are valuable and actually matter. Sen resists identifying these fundamental capabilities, leaving identification instead as the objective of a social choice exercise, subject to democratic deliberation. But Professor Martha Nussbaum, who has contributed to the development of the Capability Approach<sup>122</sup>—sometimes in collaboration with Sen—has identified a preliminary list of ten “Central Capabilities”: (1) “life”; (2) “bodily health”; (3) “bodily integrity”; (4) “sense, imagination, and thought”; (5) “emotions”; (6) “practical reason”; (7) “affiliation”; (8) ability to live with “other species”; (9) “play”; and (10) “control over one’s environment.”<sup>123</sup>

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<sup>120</sup> See NUSSBAUM, *supra* note 115, at 18. Nussbaum explains that the Capability Approach, is *focused on choice or freedom*, holding that the crucial good societies should be promoting for their people is a set of opportunities, or substantial freedoms, which people then may or may not exercise in action: the choice is theirs. It thus commits itself to respect for people’s power of self-definition.

*Id.*

<sup>121</sup> Sen explains,

One alternative is simply to *count* the number of elements in the set as reflecting the value of the range of choice. But this number-counting procedure leads to a rather peculiar accounting of freedom. It is odd to conclude that the freedom of a person is no less when she has to choose between three alternatives which she sees respectively as ‘bad’, ‘awful’, and ‘gruesome’ than when she has the choice between three alternatives which she assesses as ‘good’, ‘excellent’, and ‘superb’. Further, it is always possible to add trivially to the number of options one has . . . The assessment of the elements in a range of choice has to be linked to the evaluation of the freedom to choose among that range.

SEN, *supra* note 116, at 34–35 (footnotes omitted).

<sup>122</sup> It should be noted that Nussbaum’s theory differs from Sen’s in at least one very important way. Sen’s theory is an evaluative one—it is offered as a way of comparatively assessing quality-of-life. NUSSBAUM, *supra* note 115, at 17–18. In contrast, Nussbaum’s theory is a theory of social justice. *Id.* at 18–19.

<sup>123</sup> NUSSBAUM, *supra* note 115, at 33–34. Nussbaum notes that the list of fundamental capabilities is not rigidly determined and “can always be contested and remade” if experience

This brings us to how the Capability Approach can be adopted for purposes of antitrust law, and merger review in particular. The primary question is whether the already-existing tools of antitrust law can be adapted in any manner to accommodate the Capability Approach, and if so, how. First, and perhaps most importantly, however the fundamental capabilities are identified, identification will certainly have to come from outside of antitrust law. Identification of fundamental capabilities is certainly beyond the purview of antitrust law and the expertise of the agencies. However, once the fundamental capabilities are identified, merger law and the agencies that enforce them may have an important role in enabling and ensuring them.<sup>124</sup> Mergers that are reasonably related to one of the fundamental capabilities could be reviewed independently for its effects on the capability. For example, a merger that was likely to result in the elimination of a service or product that contributed significantly to the creation or guarantee of a fundamental capability for even a segment of consumers, might be challengeable on the grounds of its elimination alone. Mergers that do not concern a fundamental capability, however, would continue to be evaluated by the agencies with the use of the tools of welfare economics.

Two examples are illustrative of when and how the Capability Approach could be employed in the merger review process. First, consider a merger between two medical centers, each composed of multiple facilities. The reviewing agency does not anticipate that the merger will cause prices for medical services to increase. However, it does expect that, as a result of the merger, one or more facilities will close, which will increase the travel time to a medical facility for those patients who lived closest to one of the closing facilities. The closure of a facility can be understood as an elimination of a choice available to patients, while the increased travel time is the cost to patients of having a choice less suitable.

Under the conventional approach, in at least one case, the merger was consummated without being challenged, despite the increase in travel time.<sup>125</sup> In more recent cases, there have been efforts to construct models that account

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reveals that the list is lacking something crucial. *Id.* at 15. The important thing is to turn our attention away from other rigid methodologies that fall short of attending to individuals' most basic needs.

<sup>124</sup> See *id.* at 178 (noting that fundamental capabilities may be implemented through administrative agencies).

<sup>125</sup> See, e.g., U.S. OFFICE OF INSPECTOR GEN., THE EFFECTS OF HOSPITAL MERGERS ON THE AVAILABILITY OF SERVICES: A CASE STUDY OF EIGHT HOSPITAL MERGERS 16–17 (1991), available at <https://oig.hhs.gov/oei/reports/oei-04-91-00500.pdf> (discussing the Staten Island Hospital merger, which the reviewing agency anticipated would increase travel distance for individuals on the north side of the island, but which the reviewing agency never formally opposed).

for the expected increase in travel time for some patients,<sup>126</sup> although these models are not without their critics.<sup>127</sup> In any event, any faults in the models are beside the point if the tools of welfare economics are ill-suited for assessing individual well-being as it relates to choice and a fundamental capability.

So how might we evaluate a merger with similar characteristics using the Capability Approach? The first question would be, “Does the merger involve a service or product that contributes significantly to the creation or guarantee of a fundamental capability for even a segment of consumers?” In the case of a hospital merger—and, for the time being, taking the list of central capabilities suggested by Nussbaum as granted—the answer would be “yes.” Ensuring access to lifesaving medical services, which in many instances includes access to the sort of care provided at a hospital, is one way to create or guarantee two of Nussbaum’s central capabilities: “life” and “bodily health.” Because the hospital merger touches upon one or more critical or fundamental capability, we could require an independent evaluation of the merger and consider how elimination of a facility may compromise or enhance the life and bodily health of even a small group of individuals. If it was determined that accessibility to a facility was a concern, the reviewing agency could make approval of the merger contingent on the merged medical center agreeing to provide services aimed at ensuring accessibility, such as a free shuttle service for individuals farther from the remaining facilities.<sup>128</sup>

While the prior example illustrated a case in which the elimination of a choice might be reason for concern, warranting a special remedy, the next example is one in which the reduction in the number of choices might be justified. Consider a merger that will bring together two firms that have complementary R&D capabilities and intellectual property, such that the

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<sup>126</sup> See, e.g., Larry Van Horn & Luke Froeb, *Regulators Using New ‘Travel Cost’ Models in Merger Enforcement*, HOSP. & HEALTH NETWORKS DAILY (July 18, 2013), [http://www.hhnmag.com/display/HHN-news-article.dhtml?dcrPath=/templateddata/HF\\_Common/NewsArticle/data/NH/Daily/2013/July/vanhorn071813-74100004050](http://www.hhnmag.com/display/HHN-news-article.dhtml?dcrPath=/templateddata/HF_Common/NewsArticle/data/NH/Daily/2013/July/vanhorn071813-74100004050). The authors note, however, that this is just one of the methodologies used by agencies as an enforcement tool, although it does appear to be utilized in a number of enforcement decisions. *Id.*; see also, e.g., In the Matter of Evanston Northwestern Healthcare Corp. & ENH Medical Group, Inc., File No. 011 0234, Docket No. 9315 [hereinafter “the Evanston case”], available at <http://www.ftc.gov/sites/default/files/documents/cases/2008/04/080428commopiniononremedy.pdf>. Since the Evanston case, the FTC has made the travel cost model methodology a part of its enforcement strategy. Michael J. Doane, Luke Froeb & R. Lawrence Van Horn, *How Well Do Travel Cost Models Measure Competition Among Hospitals* (Mar. 10, 2012) (unpublished manuscript) (Vand. Sch. Mgmt. Research Paper No. 2012-06), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1928960](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1928960).

<sup>127</sup> See generally Gandhi et al., *supra* note 86.

<sup>128</sup> See, e.g., U.S. OFFICE OF INSPECTOR GEN., *supra* note 125, at 16–17. In analyzing the Staten Island Hospital merger, the Office of the Inspector General found that although the merger “increased the distance that a patient living in the north end of the island must travel by 8 miles, free van services are available and bus and rail lines are convenient for most.” *Id.* at 17.

combining of the firms may enable, or enable more quickly, the innovation of a lifesaving medication, treatment, or device. At the same time, however, the merger will eliminate a competitor and is therefore very likely to cause prices to increase as well. The reviewing agency could determine whether to challenge the merger by weighing the higher prices against the benefits to the individuals, weighted by the likelihood of the benefits. This is essentially a decision-theoretic approach, which is certainly a reasonable way to manage the uncertainty involved in mergers and an approach that I have generally endorsed in earlier writings.<sup>129</sup> But the benefits of the merger are supposed to be assessed from the individuals' subjective perspectives, which runs into some of the common criticisms lodged against welfare economics as a tool for evaluating well-being, particularly when a fundamental capability is involved—e.g., the impossibility of making inter-personal comparisons of individual utility;<sup>130</sup> the fact that willingness to pay turns on an individual's ability to pay, and therefore an individual's income and access to other resources;<sup>131</sup> and the fact that individual preferences are shaped by the individual's experiences such that individuals can come to prefer only what they can actually acquire.<sup>132</sup>

In fact, in reviewing one such merger, the merger between Genzyme and Novazyme, the FTC did not, in fact, attempt to assess individual demand curves for the lifesaving enzyme-replacement treatment for Pompe disease—a rare and fatal disease that affects mostly infants and young children—being developed by the two firms. Instead, the agency did what was essentially a qualitative assessment of the benefits to patients.<sup>133</sup> Ultimately, the FTC's analysis avoided some of the difficulties and criticisms involved in using the tools of welfare economics.

<sup>129</sup> See generally Sturiale, *supra* note 87.

<sup>130</sup> See generally Jeffrey M. Herbener, *The Pareto Rule and Welfare Economics*, 10 REV. AUSTRIAN ECON. 79 (1997) (stating that the Old Welfare Economics “demonstrated that its underpinning—interpersonal utility comparisons—was an impossibility.” (footnote omitted)).

<sup>131</sup> *Id.* at 82.

<sup>132</sup> This is what Amartya Sen and Jon Elster describe as “adaptive preferences.” See, e.g., AMARTYA SEN, *COMMODITIES AND CAPABILITIES* 21–22 (1985); JON ELSTER, *SOUR GRAPES: STUDIES IN THE SUBVERSION OF RATIONALITY* 25 (1983) (“*Adaptive preference formation* is the adjustment of wants to possibilities—not the deliberate adaptation favoured by character planners, but a causal process occurring non-consciously. Behind this adaptation there is the drive to reduce the tension or frustration that one feels in having wants that one cannot possibly satisfy.”). It is the idea behind Aesop's fable of the Fox and the Grapes and the common phrase “sour grapes”: The fox, unable to reach some grapes hanging from a vine, concludes the grapes must be sour and not worth having anyway. See JERRY PINKNEY, *The Fox and the Grapes*, in *AESOP'S FABLES* 49 (2000). In other words, individuals' preferences with respect to what they do and do not *want* are shaped by what they can and cannot *have* or attain.

<sup>133</sup> See Statement of Chairman Timothy J. Muris in the Matter of Genzyme Corporation/Novazyme Pharmaceuticals, Inc. 19–20 (Jan. 13, 2004), available at <http://www.ftc.gov/system/files/attachments/press-releases/ftc-closes-its-investigation-genzyme-corporations-2001-acquisition-novazyme-pharmaceuticals-inc./murisgenzymestmt.pdf>.



The sort of analysis used in the Genzyme-Novazyme merger is not too unlike the sort of analysis we could employ using the Capability Approach. Again, we would first ask whether the merger involves a service or product that contributes significantly to the creation or guarantee of a fundamental capability, even if only for a small group of consumers. In this example, the answer would again be “yes”; a lifesaving enzyme-replacement therapy for infants and children afflicted with Pompe disease is one way to create or guarantee “life” and “bodily health” for the infants and children affected. The next step would be to conduct an independent evaluation of the merger to determine how the elimination of one of the two firms’ independent R&D capabilities would compromise or enhance the life and bodily health of the affected individuals. Rather than having the evaluation of the merger hinge on an empirical analysis that, importantly, relies on individuals’ subjective evaluations of the benefits, it would largely focus on determining what course of action would produce the lifesaving treatment (and the follow-on innovations) most quickly and effectively—merger? or requiring the two firms to pursue developing a drug therapy independently? At bottom, this would essentially be a qualitative assessment that ultimately might closely resemble the approach taken by the FTC. And it is evidence that something like the Capability Approach would not necessarily be a radical departure from what the agencies already do in at least some cases.

An objection could certainly be raised that a Capability Approach to a merger would expand the role of the antitrust laws, as well as the role of the agencies enforcing those laws. Indeed, this may cause us to conclude that identification of the fundamental capabilities, as well as their creation or guarantee through the antitrust laws would not really be antitrust law at all, but rather something else entirely. That may be true. But the agencies’ review of mergers may nonetheless play some important role in the process.

## V. CONCLUSION

Welfare economics and the tools of partial equilibrium analysis are limited in their ability to account for variety effects, specifically in the context of mergers. The theoretical literature is inconclusive. There is, however, a growing and promising literature that attempts to evaluate such effects empirically. To the extent the agencies find these emerging econometric tools acceptable and they rely on such tools themselves, the agencies should make that explicit in the same way they have made their use of other tools, such as the value of diverted sales, explicit.<sup>134</sup> But to the extent the agencies continue to rely exclusively on the price model, the language relating to variety effects should be struck from the Merger Guidelines.

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<sup>134</sup> See 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 10, § 6.1.

Some scholars have criticized the tools of the agencies, claiming they do not adequately protect consumer choice. While they claim to offer alternative models, they have not explained their operations or effects in any meaningful way. This Article has attempted to develop the debate further by contemplating whether, and if so, how, an alternative framework could be adopted by antitrust law, specifically in the context of mergers. Although it may require a reconception of our antitrust laws, the Capability Approach appears to be the best alternative framework. It would enable heightened review only of mergers that affect fundamental capabilities. In all other cases, the agencies would continue to review mergers consistent with the tools of welfare economics and their well-developed expertise.

