

## Some Inconvenient Truths About Antitrust Law and Economics

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### Abstract

United States' antitrust policy and, to a lesser extent, that of the European Union stress three economic goals – consumer surplus, allocative efficiency, and productive efficiency. When they are discussed or debated, antitrust scholars omit a number of points that undercut their desirability. This Essay describes them briefly and highlights their frailties. The problem is so severe that scholars who rely on those terms to influence others without full disclosure are very close to engaging in misrepresentation.

### I. Introduction

United States' antitrust policy and, to a lesser extent, that of the European Union stress three economic goals: consumer surplus, allocative efficiency, and productive efficiency.<sup>1</sup> When they are discussed or debated, antitrust scholars omit a number of points that undercut their desirability. These points are the subject of this essay. A complete understanding of these goals is available from almost any work on antitrust and the law. Consequently, this essay describes them briefly. Then the frailties of these conventional measures of antitrust success are discussed. The problem is so severe that scholars who rely on those terms to influence others without full disclosure are very close to engaging in misrepresentation.<sup>2</sup>

### II. Consumer Surplus

Consumer surplus is the difference between what a buyer is required to pay and the most that buyer would have been willing to pay. Thus, if a buyer purchases an automobile for thirty thousand dollars but, had it been necessary,

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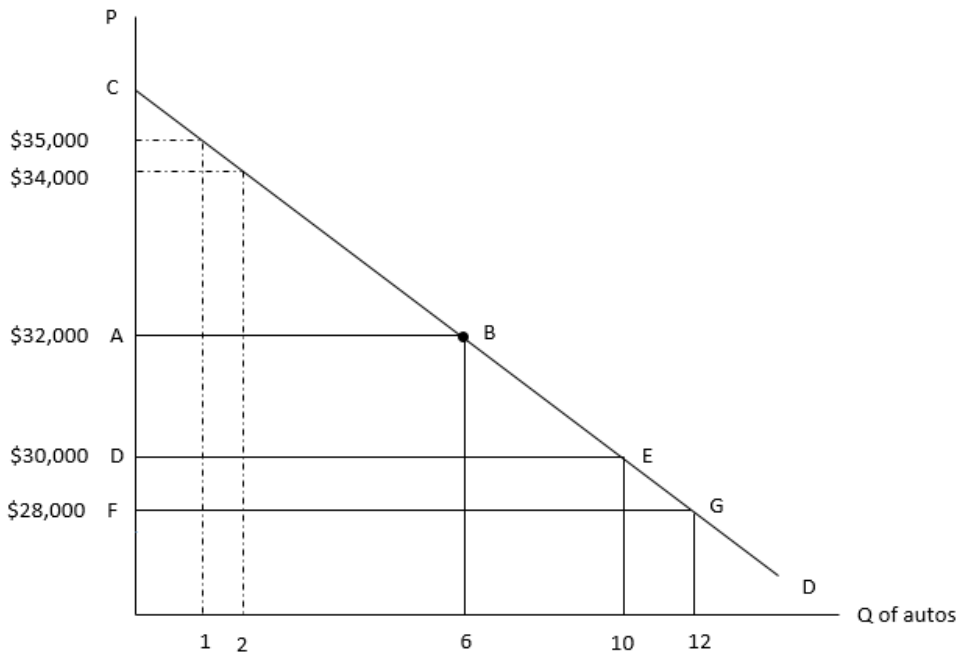
<sup>1</sup> H. Hovenkamp, *Federal Antitrust Policy: The Law of Competition and Its Practice* (St Paul: Thomson Reuters, 4<sup>th</sup> ed, 2011), 4; E.T. Sullivan and J.L. Harrison, *Understanding Antitrust and Its Economic Implications* (New York: LexisNexis, 6<sup>th</sup> ed, 2013), 396-398.

<sup>2</sup> Because of the nature of this submission, the terms will not be fully explained in depth here. All are discussed in any microeconomics text.

he would have paid thirty-five thousand dollars, the consumer surplus is five thousand dollars. It could be viewed as a form of psychic profit. But, more importantly, it represents the ability to make other utility increasing purchases with what was not spent. Obviously the greater the difference between what was paid and the amount a buyer is willing to pay, the greater the consumer surplus. Herein lies much of the rationale for antitrust. Competition typically leads to lower prices and, consequently, greater consumer surplus not simply for the single buyer but for all buyers in a market.

Figure 1 illustrates the proposition in graphical form.

Figure 1



*D* is the demand curve and normally is viewed as indicating how much will be demanded at each price. It also tells us the most people would be willing to pay for each quantity. *P* is the actual price in the market. Take a look at quantity 1. That could be buyer *A*, referred to above, who was willing to pay thirty-five thousand dollars for the auto only had to pay thirty thousand dollars. Another seller might have been willing to pay thirty-four thousand dollars for the car and that buyer as well only paid thirty thousand dollars.

Each consumer who would have paid more than the price actually paid experiences consumer surplus. If we all it up for each consumer in a market, at price of thirty thousand dollars it is equal to area *DEC*. If price goes up it decreases to the area of triangle *ABC*. And, if price should fall to twenty-eight

thousand dollars, it increases to the area of *FGC*. From this, it is clear that lower prices mean greater consumer surplus. Lower prices typically result when firms do not collude or when a market is occupied by several as opposed to one firm – a monopolist.

So far so good but, before any reader or policy maker jumps on the consumer surplus bandwagon, there are several things to consider – most of which lead to the question of whether consumer welfare and consumer surplus have much to do with actual wellbeing. For example, the hypothetical buyer in the above example must have sufficient funding to be able to afford an automobile. The same is true with respect to more necessary items like food and shelter. Left out of the consumer surplus analysis are all people who are unable to express themselves in the market. No matter how much *actual* wellbeing, happiness, or delight they might derive from the auto or from food or shelter, they are invisible to antitrust law. In effect, the fascination with consumer surplus comes with the caveat that the less affluent, to one degree or another, are irrelevant.<sup>3</sup>

That is only part of the problem.<sup>4</sup> The triangle tells us very little about how much better off people are in total. Think about a simpler example. Suppose four buyers are willing to buy an apple for one dollar and the market price is seventy-five cents. This means a total of one dollar in consumer surplus. This also means funds are left to buy other things from which the buyers derive utility. One buyer may be poor and need the twenty-five cents to buy something necessary. Another may take the twenty-five cents and toss it in the cup holder of his car where it is forgotten. The point is that consumer surpluses that nominally are the same are not the same in terms of actual consumer welfare. To add them together and characterize the sum as ‘consumer surplus’ tells us little about real welfare even for those who are able to pay.

More misleading are market to market comparisons. We might conclude that the gains in consumer surplus by making the market for yachts more competitive is equal to the consumer surplus derived from a more competitive baby food market. Nominally it may be, but this is hardly the same as saying the gains in actual consumer welfare are the same. In fact, simple appeals to greater consumer surplus tells us very little about where antitrust enforcement should be focused.

A final problem with consumer surplus is that it is based on expectations

<sup>3</sup> Of course, lower prices may mean they are able to express themselves in markets that were previously not accessible.

<sup>4</sup> Yet another problem concerns the determination of the level of consumer surplus. This depends on the price buyers are willing to pay. What they are willing to pay, however, may be a function of the actual price. They may value higher priced items more than lower priced ones. If so, what comes first: information about the price or a question of what is the most you would pay in an information vacuum?

at an instant in time, not on the utility experienced. This distinction has been noted and studied by Daniel Kahneman and others.<sup>5</sup> Decisional or expected utility is what determines choices. In a sense, it is what the buyer believes will happen. Experienced utility is the actual impact of the purchase.<sup>6</sup> All people actually understand this difference because they have all purchased something that that did not live up to expectations or which exceeded expectations. These two common occurrences are not part of traditional antitrust economics. The term ‘expected consumer surplus’ is actually more accurate. It does not correct anything with respect to the realities of consumer surplus but it does alert people to the distinction between consumer surplus and actual gains in welfare.

### III. Allocative Efficiency

The principal alternative to consumer surplus is allocative efficiency. In simple terms, allocative efficiency maximizes the sum of consumer and producer surplus.<sup>7</sup> Producer surplus is the price paid by buyers in excess of the lowest price a producer would accept. Ideally all markets would be in allocatively efficient states. This requires producing units of the output as long as that output is the most valued use of the resources consumed. When this is the case total welfare is said to be maximized.<sup>8</sup> How it is divided is not part of the analysis because economics has no principled way to distinguish gains to consumers (consumer surplus) from gains to sellers (producers’ surplus) and how it should be divided between consumer and producers would be a distributive question.<sup>9</sup>

The decision to favor maximization of consumer surplus over the goal of allocative efficiency is purely normative since there is no rationale in economics, as a discipline, for favoring consumers over a combination of

<sup>5</sup> D. Kahneman, ‘Experienced Utility and Objective Happiness’, in D. Kahneman and A. Tversky eds, *Choices, Values and Frames* (Cambridge: Cambridge University Press, 2000), 673; D. Kahneman et al, ‘Back to Bentham? Explorations of Experienced Utility’ *The Quarterly Journals of Economics*, 112, 375 (1997).

<sup>6</sup> In fact, by adopting surrogate measures of welfare and defending them, economics abandoned notions of actual well-being long ago mainly to save the relevance of the discipline. For a brief history of ‘efficiency’ and its limitations see, J.L. Harrison, ‘Happiness, Efficiency, and Decisional Equity: From Outcome to Process’ 36 *Pepperdine Law Review*, 935, 942-946 (2009).

<sup>7</sup> Many readers will be familiar with the basic marginal cost/marginal revenue analysis which results in arriving at an allocatively efficient level of production. See R. Bork, *The Antitrust Paradox: A Policy at War with Itself* (New York: Basic Books, 1978), 91-104; T.F. Cotter and J.L. Harrison, *Law and Economics. Positive, Normative and Behavioral Perspectives* (St Paul: West Academic Publishing, 3<sup>rd</sup> ed, 2013), 43-44.

<sup>8</sup> Owing the problems already discussed with respect to consumer surplus, this is doubtful.

<sup>9</sup> And this raises issues of interpersonal comparisons of utility which are impossible to make except by hunch.

consumers and producers. Plus, it is not clear that it matters. Consumers, after all, are likely to be investors who are better off when producer surplus is higher. Conversely producers – shareholders and other business owners – are likely to be made better off when consumer surplus is increased. By in large, we are talking about people who are on both sides of the market at once.

More relevant, though, is the fact that the same problems that render reliance on consumer surplus questionable are carried over to allocative efficiency. To understand why, it is important to note that a critical part of determining allocatively efficient levels of output is the proper measurement of the costs of production. Those costs are determined by prices paid in output markets by sellers for whatever they produce. In those markets, producers bid against each other with each bidding the most they can pay and still be profitable in their respective output markets. In determining how much they can pay the pivotal issue is what consumers will pay for their output. But as demonstrated already, willingness to pay is hardly a good substitute for actual welfare. For example, the sellers of an expensive anti-aging lotion based on snake venom may outbid producers of important medications made from the same venom because buyers in the skin cream market, as a result of vanity and advertising, pay high prices for the cream. The outcome may be quite distant from one that maximizes actual welfare. Plus, even if the skin cream buyers later realize the anti-aging properties were vastly overstated, they will continue to be counted as recipients of consumer surplus.

The bigger problem with invoking the idea of allocative efficiency in the context of antitrust is no less than shocking. Perhaps it is best summarized by saying antitrust law has not gone ‘green’. For allocatively efficient levels of production to be achieved, the producer-seller must internalize all costs of production. The level of those costs guide the decision about how much to produce. If some costs are not paid the cost of production will be understated and the result will be to encourage higher (now allocatively inefficient) levels of production. For example, assume there are two equally efficient producers of a product and both use water as an input. One has water shipped in by tank trucks and another simply draws it from a nearby pond and has no out of pocket costs despite the fact that its use of the water results in the destruction of an animal habitat. It will continue to produce oblivious to the actual costs of production but, in the world of antitrust economics, it will appear to be operating at an allocatively efficient level.

The importance of externalities also can be understood by thinking again about consumer surplus. First consider an admittedly artificial example. Suppose a farm operates near a residential neighborhood. The farm sells its produce to a local supermarket at attractive prices made possible by the low costs incurred by the farmer. In fact, prices are kept low because the farmer

allows fertilizer and animal waste to spill into a local lake rather than having it hauled away or treated. People in the neighborhood enjoy consumer surplus because of the low prices but also become ill from the tainted water in the lake. Here there is a direct offset between consumer surplus and negative externalities.<sup>10</sup> In fact, the example can be generalized. Any externality offsets any supposed gains in consumer surplus, making claims of greater consumer surplus as a result of lower prices questionable.

#### IV. Productive Efficiency

Although not the principal concern of antitrust, productive efficiency is probably the term to which most people refer when they mention efficiency. Productive efficiency means focusing on the individual firm and its ability to produce at the lowest per unit cost.<sup>11</sup> Under highly artificial conditions it is possible to have allocative and productive efficiency but that is rarely if ever possible. Nevertheless, productive efficiency is critical in certain types of antitrust cases including predatory pricing and bundling.<sup>12</sup> The central question in both those types of cases is whether a party is charging prices below its costs.<sup>13</sup>

Here again the fact that antitrust policy is anything but ‘green’ and ignores externalities can result in misleading and flatly incorrect outcomes. Suppose two firms buy wood to make toy soldiers and each pays two thousand five hundred dollars per ton of wood and makes two thousand five hundred soldiers. For the sake of simplicity, also suppose that wood is the only production cost paid by the firms. If that is the case, their productive efficiency is equal – one dollar per soldier. Now consider the possibility that one of those firms is near a residential area and dust from the wood spreads into the air causing respiratory problems for those nearby. The true average

<sup>10</sup> See generally, R. Claassen and A. Gerbrandy, ‘Rethinking European Competition Law: From Consumer Welfare to a Capability Approach’ *Utrecht Law Review*, 1 (2016).

<sup>11</sup> R. Bork, n 7 above, 91 fn \*; H.A. Shelanski and J.G. Sidak, ‘Antitrust Divestiture in Network Industries’ 68 *University of Chicago Law Review*, 1, 18 (2001).

<sup>12</sup> See, eg *Brook Group Ltd. v Brown and Williamson Tobacco Co.* 509 US 209 (1993); *Cascade Health Solutions v PeaceHealth* 515 F.3d 883 (9<sup>th</sup> Cir. 2007). For the Justice Department’s view see <https://www.justice.gov/archives/atr/merger-guidelines-and-integration-efficiencies-antitrust-review-horizontal-mergers> (last visited 6 December 2016).

<sup>13</sup> Low cost pricing violates section 2 of the Sherman Act when the price is below cost and there is a reasonable likelihood the firm will recoup losses incurred during the period of predation when competitors exit the market. *Brook Group Ltd. v Brown and Williamson Tobacco Co.*, n 12 above. For the EU approach see Case C-209/10 *Post Danmark A/S v Konkurrencerådet*, [2012] ECR I-0000. See generally, H. Rosenblatt et al, ‘Post Danmark: Predatory Pricing in the European Union’ *The European Antitrust Review*, 23 (2013).

Bundling is similar in that the product in question is sold in a bundle with others so the actual price of that product is unknown.

cost per soldier for that firm is two thousand five hundred dollars plus the value of the discomfort and treatment of those suffering respiratory ills all divided by two thousand five hundred. Hardly anyone would regard the firms as equally efficient. Well, hardly anyone that is, except those who write about antitrust. Just as with allocative efficiency, external costs are absent from the analysis. It is extraordinary, given the level of attention paid to predatory pricing<sup>14</sup> and bundling<sup>15</sup> that the basic measure of when these antitrust offenses occur is imprecise especially when no scholar could be unaware of the problem. Oddly, it is those who write about efficiency in the context of antitrust that seem to be most willing to ignore a variable that affects their analysis at such a fundamental level.

## V. Conclusion

The more interesting problem is why today's antitrust scholars ignore the imprecision of the measures they employ. The dismissal of externalities in an age of global warming is particularly alarming. Here are two possible answers. First, it is less costly to have a system of antitrust when the economic measures are simplistic. The problem with this is that it is also very costly to ignore the lost welfare gains to which a more sophisticated set of goals would lead. A second possibility is that adherence to today's standard results in a lower likelihood that firms will be found to have violated the antitrust laws. Unfortunately, this cynical view cannot be discounted.

<sup>14</sup> A WestLaw search conducted on 23 April 2016 revealed that the terms 'predatory pricing' and 'antitrust' appear in over five thousand seven hundred items of scholarship in the data base.

<sup>15</sup> A WestLaw search conducted on 23 April 2016 revealed that the terms 'bundling' and 'antitrust' appear in over three thousand two hundred items of scholarship in the data base.