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**DISCUSSION PAPER**

**Welfare Standards and Merger Analysis:  
Why not the Best?**

**by**

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## Abstract

Over the past several decades, there has emerged a rough consensus among professional antitrust practitioners, and within the law and economics community generally, that the “competition” referred to in our antitrust statutes is not to be interpreted simply as pre-merger rivalry among entities. Rather, it is best viewed as a process, the outcome of which is welfare, with welfare—not “rivalry”—being the object of interest. Consistent with this interpretation, scholars, competition authorities, and the courts have come to treat antitrust law as condemning only those mergers whose effect may be substantially to reduce welfare.

That having been said, there remains a question of which welfare standard to use, and exactly whose welfare to consider. Several candidates suggest themselves. I argue in this paper for using the so-called “Total Welfare” standard, rather than the more commonly employed “Consumer Welfare” standard. In doing so, I respond to three broad objections that have been raised. One is that use of a total welfare standard conflicts with antitrust law, or at least with legal precedent. A second is that employing a total welfare standard would be more costly for antitrust agencies than employing one or another flavor of a consumer welfare standard. A third is that the total welfare standard ignores important distributional considerations—considerations that are better treated under some form of consumer welfare standard. Each of these objections is evaluated, and ultimately found unpersuasive.

Antitrust agencies in the U.S., and increasingly around the world, have adopted what has been termed the consumer welfare standard for analyzing proposed mergers. For example, in a recent article, the then-Deputy Assistant Attorney General, and currently Assistant Attorney General of the United States Antitrust Division, U.S. Department of Justice stated, “Today, most would agree that proper enforcement of the antitrust laws focuses on consumer welfare.” He added that “the enforcement authorities in the United States look most frequently at the question of what is best for consumers.”<sup>1</sup> And, in a speech given shortly after succeeding Mario Monti as Competition Commissioner for the EU, Ms. Neelie Kroes observed that “Consumer welfare is now well established as the standard the Commission applies when assessing mergers and infringements of the Treaty rules on cartels and monopolies. Our aim is simple: to protect competition in the market as a means of enhancing consumer welfare and ensuring an efficient allocation of resources.”<sup>2</sup>

Under the consumer welfare standard, if a merger appears likely to harm consumers as a result of a reduction in competition--some would add “significantly”-- in any relevant market, the merger is illegal.<sup>3</sup> This article considers the basis for applying a consumer welfare standard, and examines the arguments for instead employing a total welfare standard--i.e., a standard that considers a merger’s likely effect on all members of society, not simply the consumers of products produced by the merging firms.<sup>4</sup>

As an initial matter, it is quite clear that the relevant sections of U.S. antitrust law say nothing about welfare--consumer or otherwise. Rather, they state that mergers are illegal when their effect “may substantially reduce competition in any line of commerce.”

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<sup>1</sup> Thomas O. Barnett, Columbia Business Law Review, 2004 Milton Handler Antitrust Review, Volume 2005, Number 2 pp. 295-298. Barnett states explicitly that “The views and opinions expressed herein are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.”

<sup>2</sup> Neelie Kroes, European Competition Commissioner: *Presentation: European Competition Policy – Delivering Better Markets and Better Choices*. European Consumer and Competition Day, London, Sept. 5, 2005.

<sup>3</sup> As discussed below, U.S. competition agencies will at times consider efficiencies “not strictly in the relevant market, but so inextricably linked with it that a partial divestiture or other remedy could not feasibly eliminate the anticompetitive effect in the relevant market without sacrificing the efficiencies in the other market(s).”

<sup>4</sup> This article does not address the proper welfare standard to apply in the case of civil non-merger investigations, such as those implicated by Section 2 of the Sherman Act or Article 82 of the EC’s competition law. While in principle the economic case for a total welfare standard would seem to be equally applicable outside the narrow setting of merger policy, issues such as ease of application, among others, distinguish the two situations. For discussions of the appropriate standard to apply outside the merger setting, see Werden, Gregory, “Identifying Exclusionary Conduct under Section 2: The “No Economic Sense” Test,” 73 *Antitrust Law Journal* (Forthcoming 2006) and Salop, Steven C., “Exclusionary Conduct, Effect on Consumers, and the Flawed Profit-Sacrifice Standard.” *Antitrust Law Journal*, (Forthcoming 2006). Neither, I would note, proposes that total welfare maximization be the test.

Over the past several decades, there has emerged a rough consensus among professional antitrust practitioners, and within the law and economics community generally, that the “competition” referred to in our antitrust statutes is not to be interpreted simply as pre-merger rivalry among entities. Rather, it is best viewed as a process, the outcome of which is welfare, with welfare—not “rivalry”—being the object of interest. Consistent with this interpretation, scholars, competition authorities, and the courts have come to treat antitrust law as condemning only those mergers whose effect may be substantially to reduce welfare.

That having been said, there remains a question of which welfare standard to use, and exactly whose welfare to consider. Several candidates suggest themselves. One is the welfare of consumers in each of the markets potentially impacted by the merger. Under this standard, a merger is permissible if (and only if) our analysis predicts that consumers in each and every one of the markets at issue are likely to be at least as well off after the merger as they were before it. One might call this an “Actual Pareto” consumer welfare standard, though for reasons explained below, applying this standard does not necessarily ensure that each and every consumer will be made better off.

A second approach would be to permit mergers whose net effect on consumers across all the (possibly multiple) markets served by the merging parties is positive. Using this standard, a merger would be permitted even if consumers are harmed in market A, so long as the benefits received by consumers in other markets served by the merging firms—consumers in markets B, C ... Z, are in aggregate greater. One might refer to this as a “Potential Pareto” consumer welfare standard.

A third approach, one that has not, to my knowledge, been adopted clearly and explicitly by any major competition authority, is to permit mergers whose predicted effect on the total welfare of members of society as a whole is positive.<sup>5</sup> Application of this standard requires that weight be given not only to the welfare of those who consume the merging firm’s products, but also to those doing the producing.<sup>6</sup>

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<sup>5</sup> The welfare standard employed in Canada lies somewhere between a consumer and a total welfare approach. Section 96 (1) of the 1986 Competition Act of Canada explicitly provides for an “efficiencies defense” for mergers that might result in higher prices for consumers. For an excellent discussion of the Superior Propane case, other recent Canadian court decisions, and an economic analysis of Canada’s efficiency defense, see Thomas W. Ross & Ralph A. Winter, “The Efficiency Defense in Merger Law: Economic Foundations and Recent Canadian Developments,” 72 *Antitrust Law Journal*, 471-505 (2005). See also the discussion contained in *Report of the Advisory Panel on Efficiencies*, August, 2005, submission to Scott Sheridan, Commissioner of Competition specifically those relating to the controversial merger between Superior Propane Inc. and ICG Propane Inc., have ruled, however, that where a merger appears likely to raise prices to consumers, an efficiencies defense must employ a so-called “balancing weights” approach—i.e., an approach in which harm to low-income consumers is afforded disproportionately greater weight.

<sup>6</sup> Although those most directly affected by a merger, and those for whom the merger’s likely effects may be easiest to identify and calculate, are the merging firms and their customers, total welfare technically includes also the

In one very real sense, an economy's producers are consumers as well, albeit consumers of many items other than the ones they happen to produce. There is, of course, a difference between the act of consuming and the act of producing, and most individuals in our highly specialized economy do not restrict themselves to consuming only what they themselves produce; they enhance one another's welfare through trade. This distinction, however, hardly suggest a meaningful basis for weighting the welfare of individuals occupying these two roles unequally—much less, weighting the welfare of a market's producers at zero when determining whether a merger is, on balance, beneficial to society. In any event, it seems reasonable to place the burden of proof on those who would defend the use of a narrower, so-called “consumer welfare” standard, rather than a total welfare standard that accounts for the well being of *all* of an economy's members. As discussed below, it is far from clear that this burden has been carried.

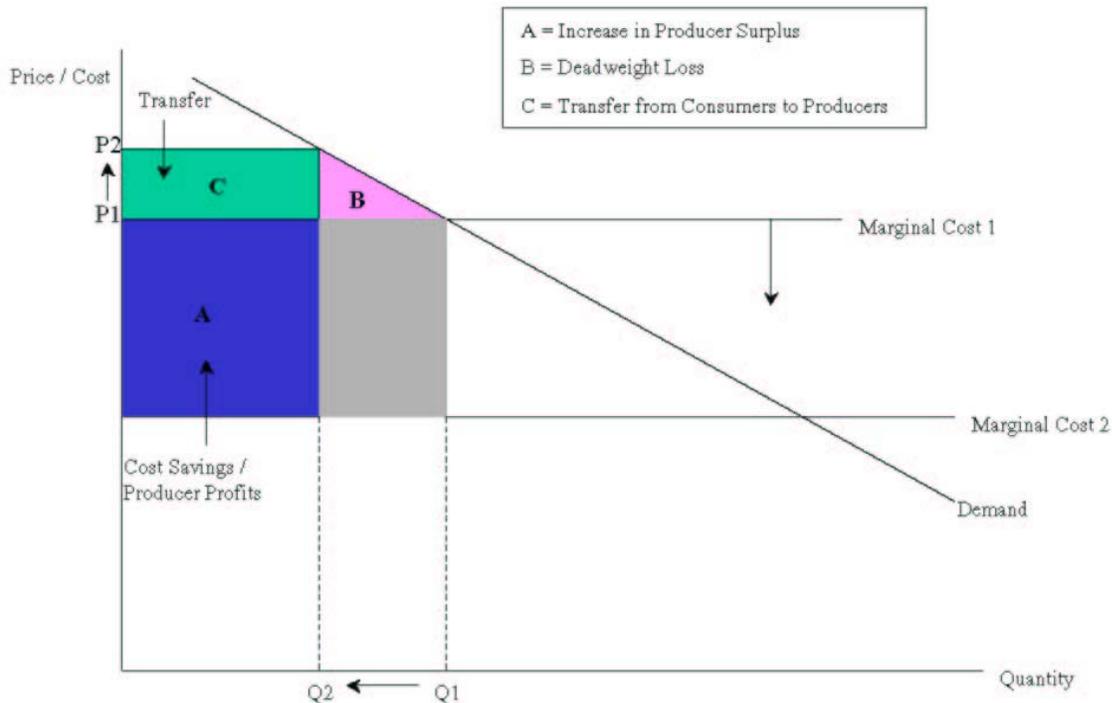
This paper makes a case for employing the so-called “Total Welfare” standard. In the course of doing so, it responds to a number of possible defenses for antitrust's current exclusive focus on the welfare of consumers in the relevant markets impacted directly by proposed mergers.

The issue is not a new one. In 1968, Oliver Williamson famously described, using what he termed “The Naive Tradeoff Model,” the tradeoff that arises when a merger simultaneously produces cost savings—from realization of efficiencies—and higher prices—from greater market power.<sup>7</sup>

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welfare of any and all who may be affected by the merger. This includes, in principle, the welfare of those who compete against the merging firms and, to the extent higher profits are shared with them, the workers at firms whose profits are affected. I do not, in this article, consider the effect of mergers on consumers, producers, or workers in countries outside of the competition authority's jurisdiction.

<sup>7</sup>Merging firms may be made better off in yet another way that can leave consumers worse off. Consider a situation where two duopolists had been colluding—tacitly, perhaps. If a merger makes it easier for them to price discriminate, this may leave consumers worse off (though it may also leave them better off). It will, in any event, likely result in greater total output and higher total welfare.



Williamson went on to present what he termed “illustrative” results, showing that it may take very small percentage cost savings to completely offset the negative welfare effects of even a significant increase in market power. Indeed, much of the subsequent commentary on Williamson’s influential article dealt more with the implicit assumptions that generated this contentious result, than with the proposal that merger policy employ a total, rather than a consumer, welfare standard.<sup>8</sup>

<sup>8</sup> See Oliver E. Williamson. “Economies as an Antitrust Defense: The Welfare Tradeoffs.” 58 *American Economic Review*. 1, 18-36 (1968). In responding to critics and qualifying his admittedly naive model, Williamson recognized that accurately measuring a merger’s net effect on total welfare properly incorporates any losses in producer surplus--which occur when, as is commonly the case, the merging firms were setting price above marginal cost even before exercising greater market power post-merger. Williamson concluded that adjusting for this did not materially affect his conclusions. For criticisms of Williamson’s original article, see Michael E. DePrano and Jeffrey B. Nugent. “Economies as an Antitrust Defense: Comment.” 59 *The American Economic Review*. 5, 947-953 (1969). Alan A. Fisher and Robert H. Lande, “Efficiency Considerations in Merger Enforcement.” 71 *California Law Review*. 6, 1580-1696 (1983). For responses by Williamson to his critics, see Williamson, *Economies as an Antitrust Defense: Reply*.” 59 *The American Economic Review*. 5, 954-959 (1969) and “Economies as an Antitrust Defense Revisited,” 125 *University of Pennsylvania Law Review*. 4, 669-736 (1977). For a more recent treatment of similar issues, see L.H. Roller, J. Stennek and F. Verboven. “Efficiency Gains from Mergers” *Working Paper No. 543*. Industrial Institute for Economic and Social Research. 2000, Roller, Stennek, and Verboven.

### *Welfare and Efficiency*

The concepts of economic welfare and economic efficiency are closely related to one another. Economists say that an economy is operating at maximum efficiency when society is squeezing the greatest value—the highest level of welfare—out of its scarce resources. The independent actions of profit and utility-maximizing economic agents work towards producing this desirable outcome in ways that are familiar to students of elementary microeconomics. Competition among firms to obtain the patronage of consumers spurs them to produce those goods and services that are most highly valued by consumers, to do so at the lowest possible cost (for example, by finding ways of producing the same quantity of output with fewer inputs), and to drive prices down towards the marginal cost of production (thereby resulting in output up to the point at which additional value to consumers no longer exceeds the additional cost to society). In this way, competition works--“as if by an invisible hand” as Adam Smith famously observed--to squeeze the greatest possible value out of society’s scarce resources.

One of the ways in which production costs are minimized is by efficiently combining the inputs that produce the goods and services we ultimately consume. The entities that typically accumulate and process inputs into final products are called firms, though at times inputs may be combined by independent agents through arms-length contracts with one another. Firms will at times seek to grow through merger, though an alternative may be to grow “internally,” or perhaps to expand via arms-length contracts with other, still independent, firms.

### *Mergers and Efficiency*

Getting a product to market involves a number of discrete, yet critical, steps. These steps may include some or all of the following: basic research, applied research, product design, product manufacture, marketing, distribution, service. Not uncommonly, firms that produce final products in close competition with one another have different strengths and weaknesses in these various steps. Auto Firm A, for example, may be better than auto Firm B when it comes to coming up with innovative ideas and quality control, while auto Firm B may be better than auto Firm A when it comes to marketing and post-sale servicing. Combining the best of both can produce synergies, which in principle permit lower-cost production of an even better product.<sup>9</sup>

It is useful to discuss briefly why contracts that maintain the independence—especially the pricing independence—of two competitors with relatively different strengths will not always be a feasible or equally efficient method of obtaining the economic benefits expected from merger.

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<sup>9</sup> Many of these essentially “complementary” efficiencies may be available only by merging the operations of competitors.

Industrial organization economists have, at least since publication of Ronald Coase's landmark article on the theory of the firm, been intrigued with the question of when and why the costs of organizing transactions within firms will tend to be lower than the costs of organizing transactions across entities via contract.<sup>10</sup> Several decades after the appearance of Coase's article, work by others, particularly Oliver Williamson, put more theoretical flesh on the bare bones that Coase had first exposed.<sup>11</sup> Over time, a number of industry studies provided a degree of empirical support for today's commonly accepted notion that transactions organized within a firm can in many cases economize greatly on the transactions costs associated with writing, monitoring and enforcing contracts.<sup>12</sup> While important theoretical questions about the efficiency of operations even within a firm continue to be studied, there is little disagreement that it will frequently be less costly to conduct transactions within a firm than to do so across firms. And unless it is equally costly for a firm to grow internally rather than through acquisition, this implies that cost savings may be merger-specific. In other words, merger will at times be the most efficient means through which firms satisfy the demands of consumers.

A merger can be thought of as a special sort of contract, an "all-encompassing" one, if you will, whereby the decisions of two formerly independent firms will be subject to the authority of a single entity. Or, put differently, where two formerly independent firms "contract" to become a single firm. Firms may merge to obtain greater market power. They may also merge to achieve efficiencies—i.e. to reduce costs.<sup>13</sup> The efficiencies potentially realizable through merger are numerous, as are the means through which these benefits can be achieved.<sup>14</sup>

Broadly speaking, efficiencies will tend often to take either of two forms: ones that lower marginal production costs, and ones that generate savings in fixed costs. Efficiencies can lower

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<sup>10</sup> See Coase, R.H. "The Nature of the Firm." 4 *Economica*, New Series. 16, 386-405 (1937).

<sup>11</sup> See Oliver E. Williamson. *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: The Free Press, 1975.

<sup>12</sup> See Benjamin Klein, Robert G. Crawford, and Armen Alchian. "Vertical Integration, Appropriable Rents, and the Competitive Contracting Process." 21 *Journal of Law and Economics*. 2, 297-326 (1978). See also Russell Pittman. "Specific Investments, Contracts, and Opportunism: The Evolution of Railroad Sidetrack Agreements," 34 *Journal of Law and Economics*. University of Chicago Press. 2, 565-589 (1992) and Paul L. Joskow "Contract Duration and Relationship-Specific Investments: Empirical Evidence from Coal Markets." 77 *The American Economic Review*. 1, 168-185 (1987).

<sup>13</sup> I am referring here to a lowering of the cost function, not to a reduction of costs that occurs purely as a consequence of reducing quality or output.

<sup>14</sup> This raises a question of how to treat reductions in marginal cost that arise because of procurement cost savings. The answer is that procurement cost savings that arise because of resource cost savings—e.g., fewer resources required when there are longer production runs—are welfare-enhancing. Indeed, they are efficiencies that likely result in greater output as well. Procurement cost savings that arise from merger-generated monoposony power, however, are less likely to generate increases in welfare. Unless the exercise in monoposony power is offsetting pre-existing market power on the selling side, these benefits to the merged firm will likely result in lower output, and will in any event result in inefficient production of pre-merger levels of output.

the cost of producing existing products. They can also promote the development of entirely new or better products. One way in which this latter type of benefit—so-called “Dynamic” efficiencies—can in theory be enhanced is for merging firms to eliminate redundant R&D activities and instead allocate the firms’ limited assets towards multiple, alternative, projects. Dynamic efficiencies may themselves be realized in a variety of ways, and one may ask whether efficiencies that make innovative activity more likely to occur, or likely to occur at lower cost, are more properly viewed as fixed cost savings or marginal cost savings. The important point is that whatever label one applies, and regardless of how the benefits from dynamic efficiencies are split between lowering prices and developing entirely new products or processes, dynamic efficiency generates an increase in total welfare.<sup>15</sup>

Distinctions between fixed and marginal cost tend to be particularly important when competition authorities employ a consumer, rather than a total, welfare standard. The reason is as follows: unlike changes in marginal cost, changes in fixed cost generally do not alter the firm’s profit-maximizing price, or the level of output at which the firm maximizes its profits, unless they affect the firm’s very viability.<sup>16</sup> As a result, pure fixed cost changes, no matter how large, may have no effect at all on the welfare of consumers in the relevant market.<sup>17</sup> In terms of their effect on a firm’s profit-maximizing price, higher fixed costs can be compared with someone breaking into the company’s headquarters and stealing a large sum of money from the firm’s safe. Conversely, lower fixed costs are akin to some anonymous benefactor depositing a large sum of money into the firm’s bank account. In the first case the firm is worse off, and in the second it is better off, yet in

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<sup>15</sup> Another oft-cited category of possible efficiencies from merger is realization of scale economies. For reasons given in Farrell and Shapiro, however, achieving through merger pure scale economies will often not be merger-specific. Or if it is, the fact that the merging firms hadn’t been achieving these efficiencies without merging may suggest strongly that the market is not performing competitively. Joseph Farrell and Carl Shapiro. “Scale Economies and Synergies in Horizontal Merger Analysis.” 68 *Antitrust Law Journal*. 685-710 (2001). Roller et al (op.cit.) categorize potential efficiencies from merger as either rationalization, economies of scale, technological progress, purchasing economies, and reduction of slack (managerial and X-efficiency). See also William J. Kolasky and Andrew R. Dick. “The Merger Guidelines and the Integration of Efficiencies into Antitrust Review of Horizontal Mergers,” 71 *Antitrust Law Journal*. 207-252 (2003).

<sup>16</sup> Although it sometimes surprises attorneys to hear it, reducing the marginal cost of even a monopolist makes it profitable for the monopolist to reduce price and increase output. Fixed cost savings do not have this effect. These implications flow from the fact that demand curves slope downward, and firms maximize profits by setting marginal revenue equal to marginal cost.

<sup>17</sup> Under a consumer welfare standard, even fixed cost savings would properly be given some weight if they were ultimately passed along to consumers in the form of lower prices. Arguing that all costs must be recovered in the long run, some would contend that fixed cost savings would, eventually, be reflected in lower prices. This intuition no doubt provides part of the rationale for the willingness of the U.S. antitrust agencies, as reflected in the Horizontal Merger Guidelines, to “consider the effects of cognizable efficiencies with no short-term, direct effect on prices in the relevant market.” The extent to which fixed cost savings actually will be passed through, and how quickly that might occur, will depend at least in part on the strength of competition post merger.

neither case is there reason to expect a change in the price the firm finds it most profitable to set, or the level of output the firm finds it most profitable to produce.

Importantly, however, unlike in the case of pure money transfers, fixed cost savings have significant efficiency implications for the economy as a whole. As discussed below, by freeing up resources for use elsewhere in the economy, fixed cost savings enhance an economy's total welfare. These potential benefits from merger are given zero weight when applying a narrow consumer welfare standard.<sup>18</sup>

### *The Actual Pareto Consumer Welfare Standard*

As an initial matter, when a merger has no effect other than to lower the (quality-adjusted) price for final goods sold in a market, some consumers in that market will benefit and no consumers will be harmed. Those who had been consuming the product before the merger will be able to purchase their original quantities at a lower price, and additional surplus will be obtained by consumers who, at the now-lower price, consume even greater quantities than before. In addition, individuals who had in the past maximized their utility by consuming zero quantities of the product may be better off by making some purchases at the now-lower price. Thus, all consumers of the product appear to be better off.

Even in the case of price-lowering mergers, however, it will not necessarily be true that all consumers everywhere will be better off. An efficient merger may drive one or more rivals out of business, and consumers who preferred the version offered by exiting rivals may now find themselves worse off. Related to this point, efficiencies sometimes arise from combining complementary assets and standardizing on a single platform or a single standard. Where the two merging firms had previously been offering competing and incompatible methods of satisfying consumers, efficient standardization will typically strand the investments of consumers who had invested in the to-be-jettisoned standard. They will be left worse off, even though consumers in

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<sup>18</sup> The Horizontal Merger Guidelines issued by the U.S. Department of Justice and the Federal Trade Commission outline the approach to efficiencies taken by the U.S. federal competition authorities. They state, "The Agency will not challenge a merger if cognizable efficiencies [i.e., efficiencies that are merger-specific, that have been verified and do not arise from anticompetitive reductions in output or service] are of a character and magnitude such that the merger is not likely to be anticompetitive in any relevant market." In a footnote, the Guidelines go on to qualify this statement by noting that, although the Agency generally focuses on whether cognizable efficiencies likely would be sufficient to prevent even short-term price increases in the relevant market, "The Agency also will consider the effects of cognizable efficiencies with no short-term, direct effect on prices in the relevant market," though the Guidelines state that benefits from such efficiencies "will be given less weight because they are less proximate and more difficult to predict." This qualification explicitly permits U.S. competition authorities, under some limited circumstances, to depart from what I am referring to as the consumer welfare standard. Nevertheless, neither the U.S. competition authorities, much less the competition authorities in most other economies, appear willing to adopt explicitly and unambiguously a total welfare standard for merger enforcement.

the market as a whole are better off from having a better, cheaper, more ubiquitous standard as a result of the merger.

Producers in the relevant market(s) may be either better off, or worse off. Certainly the merging firms believe that they will be better off, as evidenced by the fact that they've chosen to merge—presumably, voluntarily. Rivals of the merging firms are likely to be harmed, since a price-lowering merger may well force them to compete harder, perhaps by lowering their own prices, and they may well lose business to the more efficient merged firm. In addition, firms not even in the relevant market may be worse off to the extent that demand for their product falls when consumer patronage shifts to products whose price has fallen as a result of the merger. While these latter categories of producers are worse off—indeed, producers may collectively be worse off—an Actual Pareto Consumer Welfare Standard would bless the merger.

As emphasized recently in work by Steve Salop, merger-generated efficiencies can in theory actually lower *total* welfare—as a consequence of shifting sales towards the merging parties and away from their rivals.<sup>19</sup> Salop presents an example where two relatively high-cost firms with relatively small shares achieve marginal cost savings through merger. As a consequence of lowering their marginal cost, they reduce price somewhat. This, in turn, results in greater sales for them and lower sales for what may be a (still) more efficient rival.<sup>20</sup> Although the reduction in the merged firm's marginal cost will likely lead to at least somewhat greater sales in the relevant product market, the pre-merger level of output will be produced at higher total cost. In such a circumstance, the net effect would be gains for consumers, but quite possibly lower total welfare--after one adjusts for the net negative effect on producers as a whole.

Scenarios such as this may or may not be rare, yet they represent another category of cases—ones where prices are actually lowered by a merger—in which application of a pure consumer welfare standard would be costly to the economy as a whole. Taking fully into account such possibilities—akin in certain respects to “second best” considerations<sup>21</sup>--may be very difficult in practice; however, the example alerts us to the possibility that looking only at a merger's effect on the welfare of consumers and the merging firms can be too narrow a focus if it ignores

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<sup>19</sup> Submission of Steve Salop to the Antitrust Modernization Commission dated 11/4/05; “Question: What is the Real and Proper Antitrust Welfare Standard? Answer: The *True* Consumer Welfare Standard”.

<sup>20</sup> In answer to the question “How do higher-cost firms manage to survive in the market?” Salop suggests that it may be because they provide a differentiated product. To the extent that consumers value the particular variety produced by the “high cost” firms, Salop may not be making the point as strongly as he might. Given that many oligopoly models—Cournot among them—generate equilibria where the lowest cost firm finds it profitable to price high enough to keep its rivals viable, the general point can be made even more strongly by simply assuming that all firms in the market produce and sell a homogenous product.

<sup>21</sup> R. G. Lipsey and Kelvin Lancaster. “The General Theory of Second Best.” 24 *Review of Economic Studies* 1, 11-32 (1957).

inefficient shifts in production across firms and leads one falsely to conclude that a merger has raised total welfare, when in fact it has not. The original Williamson diagram, therefore, suggests incorrectly that when a merger results in lower prices total welfare inevitably rises. This is not a general result.<sup>22</sup>

### *Fixed Cost Savings and Total Welfare*

There are any number of situations in which merging parties anticipate capturing efficiencies that, under traditional consumer welfare criteria, would not help them avoid an adverse enforcement decision (or court ruling). Thus, the choice of standard may be of more than simply theoretical interest. Mergers contemplated because they will likely produce significant fixed cost savings tend to be of this form. Consider, for example, the situation where Firm A and Firm B compete with differentiated products, and where Firm A happens to have a good deal of unutilized capacity in its factory. The reasons for this disequilibrium state of affairs may be several, but let's assume that the available capacity is temporarily excessive because there has been a significant and unanticipated drop in demand for Firm A's product.<sup>23</sup>

The excess capacity in the hands of Firm A can, let us assume, be used to produce the entire projected output of competing Firm B. In such circumstances—which I suspect are hardly unique—consolidating all the production of both firms in the partially vacant plant of Firm A would clearly lower the total cost of producing this output. This is because part of the cost to society of producing Firm B's output in Firm B's plant is that resources are being used for this purpose that could be reallocated elsewhere in the economy, producing a net gain in total welfare. In particular, assuming the fixed cost savings are merger-specific, a cost of prohibiting a merger between Firms A and B would be the opportunity cost of continuing to run the plant of Firm B.<sup>24</sup> If Firm B's plant would be closed by a merged firm, and particularly if the merged firm would continue supplying the market with all or nearly all of both Firm A and Firm B's pre-merger output, economic benefits could be substantial.

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<sup>22</sup> Though concern for the welfare of parties affected only indirectly by the effects of a merger ought not be irrelevant to enforcement decisions, difficulties associated with estimating such effects (which may well be “second order”) would seem to argue for imposing a fairly high burden of proof upon those—typically competitors—seeking to have competition authorities block mergers on these grounds.

<sup>23</sup> Unused capacity need not, of course, be “excess” in an economic sense. It may instead be serving a valuable function in the event that demand for the firm's product increases in the next period. By assumption, I am ruling out this explanation. In addition, the fact that factory capacity is durable implies that the firm cannot readily and immediately adjust its capacity to fit the now-smaller projected demand for the output of its product. Over time, of course, firms will adjust their investment decisions to reach a new, long-run equilibrium. Nevertheless, this will not necessarily happen quickly.

<sup>24</sup> As discussed in Farrell and Shapiro (op. cit.), such efficiencies are more likely to be merger-specific when firm A can't simply produce and sell the total output of the two merging firms at constant cost through its own plant. This may be because the products of the merging firms are branded and contracting costs are substantial.

Benefits might consist of the value—net of their production costs—of alternative products produced out of the now empty plant. Or, if the highest alternative use of the plant is to tear it down and sell it as scrap, then the value of that scrap (net of demolition costs)—plus the value in its highest alternative use of the land upon which the plant currently sits—would represent economic benefits from the merger. These would all be net benefits to the economy—an increase in total welfare. The fact that they do not involve a reduction in the merged firm's marginal cost—and thus do not result in any “pass-through” to the merged firm's consumers, does not change the fact that the merger is welfare-enhancing.<sup>25</sup> Under a consumer welfare standard, the merger would be blocked if there is a small increase in market power.

### *Marginal Cost Savings Not Fully Passed Through*

As discussed above, fixed cost savings tend not to be passed on to consumers in the relevant product market(s) at all, while marginal cost savings in markets potentially raising competitive concerns generally result in lower prices. That having been said, the degree of “pass-through” from mergers that lower marginal costs will differ from case to case, as they are a function of many factors—including both demand conditions and the particular oligopoly game being played by firms in the market.<sup>26</sup>

Much like fixed cost savings, those marginal cost savings that do not result in lower prices are both benefits to society as a whole and, under a consumer welfare standard, not an acceptable defense to a transaction that is likely to raise price.

### *The Benchmark: Total Welfare*

Let us begin with the standard definition of total welfare. In any single market, total welfare is conventionally defined as total surplus—the difference between the value consumers place on output, minus what it costs society to produce that output. Across all markets, total welfare is simply the sum of all surplus, irrespective of how it happens to be divided between consumers and producers. In a hypothetical world populated by only a single individual, that individual would do best by organizing his or her affairs so as to maximize the total value obtained from the scarce resources he or she has to work with.<sup>27</sup>

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<sup>25</sup> Of course, if the marginal cost of production at Firm A's plant is lower than the marginal cost of production at Firm B's plant, efficiencies would be even greater—though in this case we would expect the lower marginal cost of production to translate into some pass-through to final consumers and a concomitant increase in consumer surplus (i.e., welfare).

<sup>26</sup> A pure price taker—an “infra marginal producer”—will not find it profitable to pass on in the form of lower prices even marginal cost savings. Rather, it will keep those savings as rents.

<sup>27</sup> Of course, in such a world it is hard to imagine any need for a merger policy. Still, the point holds.

Adding to the population does not obviously negate this core principle; however, it does introduce issues of distributional equity, which I discuss in some detail below. In any event, the difference between the value to consumers and the cost of production is exactly what economists mean by total welfare. From the standpoint of society as a whole, maximizing it would seem, at least at a first approximation, to be a desirable objective. Anything short of this is akin to asking society to make do with less, rather than with more.<sup>28</sup>

What reasons might there be for departing from this standard when developing merger policy? We can consider at least three categories of objections. One is that use of a total welfare standard conflicts with antitrust law, or at least with legal precedent. A second is that employing a total welfare standard would be more costly for antitrust agencies than employing one or another flavor of a consumer welfare standard. A third possible objection, one neatly abstracted away from in our example of a single individual populating the economy, is that the total welfare standard ignores important distributional considerations—ones that are better treated under some form of consumer welfare standard. Each of these objections is evaluated, and ultimately rejected, in the analysis below.

#### *Legal Impediments to Use of a Total Welfare Standard?*

Section 7 of the Clayton Act prohibits mergers, the effect of which “may substantially reduce competition *in any line of commerce.*” (emphasis added). It does not say anything about consumers.<sup>29</sup> An argument could certainly be made that the “in any line of commerce” language implies that mergers are illegal whenever the result is net harm in any relevant market (irrespective of whether the net benefits outside of that relevant market would be even greater). While under this argument one might condemn welfare-enhancing mergers whose primary benefit is to consumers in some other markets, it does not, by itself, support condemning mergers whose

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<sup>28</sup> It is worth noting that literal application of a pure consumer welfare standard, as that term is being defined here, would appear to immunize consumer buyer groups that exert efficiency-reducing monopsony power over sellers. I suspect that many supporters of a consumer welfare standard for sellers would be uncomfortable applying its logic equally to the buyer side of the market. Moreover, economic cost-benefit analyses of proposed government activities and regulations tend to employ a “distribution neutral” framework, though these studies may attempt to estimate, or even propose ways of ameliorating, associated distributional consequences. [cites?]

<sup>29</sup> I recognize that there is a literature debating just what objective function those who legislated the Sherman Act were really seeking to maximize, and that there are those who feel strongly that the Act was passed to protect the merging firms’ consumers. This article takes no position on the “original intent” of U.S. merger policy’s Founding Fathers. To the extent that legislative history truly presents a bar to use of a total welfare standard, an implication of this article is that new legislation to correct this error would be desirable. In any event, for those countries where there is less clearly a legal bar to use of a total welfare standard, such use would be in their economies’ best interest.

benefits to some in the relevant market (namely, those producing the goods being consumed), exceed the harms to others in the same relevant market (those doing the consuming).

Only a seemingly arbitrary decision to weigh more heavily the welfare of some individuals in society than others would do that. If, in particular, a merger causes harm to consumers of product A and yet the fixed cost savings from no longer producing and selling product A would exceed this harm, then treating the welfare of consumers and producers of product A equally would seem to imply that the merger enhances (total) welfare “in a line of commerce.”

The literal language of Section 7 would seem, if anything, more likely to rule out use of a Potential Pareto Consumer Welfare standard than to trump a Total Welfare standard. In the former case, at least the beneficiaries whose gains outweigh the harm to be suffered by individuals within a specific line of commerce (or relevant market) are by definition outside that line of commerce. Conceivably, therefore, consideration of these benefits might run afoul of the law’s prohibition against mergers likely to reduce competition substantially “in any line of commerce.”

Nevertheless, the federal antitrust agencies, if not yet the courts, have stated explicitly that under certain circumstances they will employ their prosecutorial discretion to not challenge such mergers. In particular, the most recent edition of the DOJ/FTC Horizontal Merger Guidelines observes that: “In some cases...the Agency in its prosecutorial discretion will consider efficiencies not strictly in the relevant market, but so inextricably linked with it that a partial divestiture or other remedy could not feasibly eliminate the anticompetitive effect in the relevant market without sacrificing the efficiencies in the other market(s).”<sup>30</sup> Incorporating into one’s decision-making out-of-market consumer benefits that are inextricably linked to in-market consumer harms makes eminent economic sense. Less clear is why these benefits should, from either a legal or an economic perspective, receive greater weight than the benefits to producers--whether the latter are achieved in-market or out-of-market.

All of this having been said, the language of the Clayton Act explicitly concerns itself with maintaining competition, not welfare. Doesn’t the concern with competition imply that the Clayton Act aims to protect the beneficiaries of competition—consumers?<sup>31</sup> Perhaps. And

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<sup>30</sup> N. 36. 1997 Revised Horizontal Merger Guidelines (31).

<sup>31</sup> One might fairly observe that because the law talks about competition, not about benefits, mergers that reduce competition—for example, merger to monopoly—are at the heart of the statute’s concerns. In this respect, use of a consumer welfare standard could perhaps be deemed a sensible way of making operational the statute’s notion of reduced competition. On the other hand, to get from “competition” to “consumer welfare” requires the introduction of a benefit standard. Otherwise, the law is only protecting the act of rivalry itself, which as discussed earlier, the law has (appropriately, in the view of many) moved beyond.

yet, even here the case for a consumer welfare standard is less than clear-cut. Merger to monopoly, for example, reduces competition by definition.<sup>32</sup> Nevertheless, if the merger-specific marginal cost reductions are large enough, even in these cases the affected consumers are better off, and welfare (however defined) rises. Does the Clayton Act condemn such mergers? *Should* it do so? If we agree that the ultimate determinant of whether a merger under the law (a law that is conspicuously silent as to the welfare measure it endorses) depends (or should depend) on its effect on welfare rather than on competition *per se*, then it seems fair to consider whether the appropriate measure of welfare *should* be consumer welfare or total welfare.

### *Costs of Change?*

Once a precedent, or a policy, has been around for a sufficiently long period of time, individuals are likely to have come to rely upon it. More specifically and more significantly from an economics perspective, the reliance that individuals place upon a longstanding policy may have led them to sink investments in anticipation of the precedent not being overturned. Both from the standpoint of equity and efficiency, change—even change to a “better” policy (or standard)—can impose significant costs. Is this consideration likely to present a serious objection to shifting from a consumer to a total welfare standard in merger analysis? It is not likely that it would, and the application to merger policy of the so-called “stare decisis” doctrine seems weak.

In particular, there seems little reason to believe that a change in standard would cause either inefficiency or an inequitable effect on those who have taken past actions in reliance on the current standard. A change in standard would not be applied retroactively to mergers that have already been consummated, and on a going forward basis it is hard to imagine significant costs of shifting to a total welfare standard for mergers have not yet even been proposed. We hardly have a situation where market participants, relying on the consumer welfare precedent, have made significant sunk investments based on the assumption that a consumer welfare standard would continue to be used on into the future. Shifting towards a total welfare standard for review of future mergers would seem to provide guidance that is no less clear to potential merger parties. It would also have the added benefit of encouraging an even larger number of efficient mergers than have taken place in the past.

One cost of changing standards would be a need for the antitrust bar, consultants, and courts who have become educated in just what does/doesn't satisfy a consumer welfare test to become re-trained in what constitutes an increase in total welfare. My sense is that these costs are likely to be relatively small. Certainly, they will be far smaller than the costs that were

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<sup>32</sup> And, it certainly satisfies the statute's concern with mergers that “tend to create a monopoly”.

incurred in the course of moving over the past three decades towards a more economics-based approach to merger analysis generally.

### *Relative Costs of Administering the Alternative Standards*

If the costs—to competition agencies, firms, consultants, courts—of employing a total welfare standard were likely to be significantly higher than the costs of employing a consumer welfare standard, this would be an argument for sticking with what we have—warts and all. It is not obvious, however, that this is true. Indeed, it is plausible that in a significant share of investigations it would be easier, rather than more difficult, to employ a total welfare standard.<sup>33</sup>

Supporters of a consumer welfare standard might contend that applying it is fairly simple; “All one needs to do is determine whether price will rise or fall.” Unfortunately, even this is far more difficult to determine in practice than it is to state in principle—even if one were to assume away the potential for merger-specific improvements in product quality.

In order to gauge the actual effect on consumers of a product, economists require reasonably accurate information about the shape of the demand curve within the relevant range. The costs of obtaining reliable information of this sort may be considerable. Absent this information, it is difficult to estimate confidently the extent to which marginal cost savings of any given amount will be passed on to consumers in the form of lower prices.<sup>34</sup>

In addition, estimating the price effect from a merger-generated reduction in marginal cost of any given amount requires information about the competitive “game” being played by market participants. Cournot, Bertrand, and other specific types of oligopolistic competition have different implications for the extent of pass-through from a given cost reduction, just as they have different implications for the extent to which a merger will enhance market power. And, all of this is complicated even more by the fact that the type of competitive game being played may itself

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<sup>33</sup> In deciding how much weight to be given “administrative ease” when deciding upon a welfare standard, one should be mindful of the old saw about looking under a street lamp for one’s lost keys simply because the light there is better.

<sup>34</sup> Werden, however, shows that in the case of differentiated products where merger leads to neither enhancements in quality nor changes in differentiation (such as, through repositioning), the marginal cost reduction necessary to offset the anticompetitive effect is independent of the shape of demand; it depends only on margins and diversion ratios. And, accurate information about these variables may be easier to obtain than information about demand. Werden further argues that, in these circumstances, a very large reduction in marginal cost is generally required to offset the price-increasing effects of an otherwise anticompetitive merger. See Gregory J. Werden. “A Robust Test for Consumer Welfare Enhancing Mergers Among Sellers of Differentiated Products.” 44 *The Journal of Industrial Economics*. 4, 409-413 (1996).

change as a result of the merger, implying either greater or lesser pass-through than if the game remained unchanged.<sup>35</sup>

Beyond these difficulties, and importantly, in order to apply the consumer welfare standard the analyst needs not simply an estimate of merger-specific efficiencies, but also an estimate of the anticipated merger-induced reduction in marginal cost. The practical difficulties of distinguishing between those cost savings that impact incremental sales—and thus will to some extent factor into future pricing—and those that are fixed—and hence are unlikely directly to affect the profit-maximizing price, can be substantial.<sup>36</sup> In my experience, considerable resources tend to be spent (wasted?) by merging parties, by their consultants, by the competition authorities themselves, and by the courts in attempting to draw what would, under a total welfare standard, be a far less important distinction.

It might be argued that even if the costs of implementing a consumer welfare test are nontrivial, they are *necessarily* less than the cost of calculating the total welfare effect of a merger. Why? Because calculating total welfare requires the analyst to do all of the above *plus* estimate and add in any fixed or marginal cost savings that will not be passed on to consumers.

While this is correct if one's goal is to calculate precisely a merger's total effect on welfare, it is not correct if one's purpose is instead to determine whether total welfare is likely to increase. There will surely be many situations where the analyst would be able to conclude from the likely magnitude of merger-specific cost savings—whether marginal or fixed—that these benefits to society would exceed any plausible deadweight welfare loss.<sup>37</sup> In such cases, a total welfare standard would likely be far *easier* than a consumer welfare standard to apply. Moreover, if one is unable to estimate with a reasonably high degree of confidence claimed efficiencies that benefit producers rather than consumers (such as, merger-specific fixed cost savings), it would not be inconsistent with the use of a total welfare standard to evaluate the merger largely on the basis of what one believes likely to be the effect on final consumers alone. A total welfare standard may, therefore, not only be more desirable conceptually, but also less costly to implement.

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<sup>35</sup> To be sure, this may complicate considerably the analysis of a merger's likely effects under *any* welfare standard.

<sup>36</sup> In addition, marginal cost savings will generally not be achieved immediately, implying a need properly to discount for the more distant effects on price. While even fixed cost savings may take time to materialize, these at least tend to be “one-time” cost savings, implying less need to discount a stream of future benefits.

<sup>37</sup> Treating as welfare-neutral the pure transfer of surplus from consumers to producers from even a modest post-merger price increase—which is what a total welfare standard would do—the deadweight loss from many mergers would often be quite small relative to any significant cost savings. This, even after controlling for the factors that may have biased upwards the estimates contained in Williamson's naïve model. Moreover, as discussed in Roberts and Salop, firm-specific efficiencies generated by merger may, over time, “spill over” to the market as a whole as other firms in the economy gradually appropriate these benefits for themselves. Gary L. Roberts and Steven C. Salop, “Efficiencies in Dynamic Merger Analysis.” 19 *Offprints of the World Competition* 5 (1996).

## *Welfare Standards and “The First Theorem of Antitrust”*

Finally, one might argue that employing a consumer welfare standard is less costly because it lends itself to ready application of the so-called “First Theorem of Antitrust”—i.e., “If consumers like it, the merger is procompetitive and should be permitted. If they dislike it, the merger is anticompetitive and should be blocked.” Because pure fixed cost savings do not translate into lower prices for consumers in the relevant markets impacted by a merger, and because a total welfare standard explicitly permits a tradeoff between harms to consumers and (potentially larger) gains to producers, determining from the “views of customers” whether to challenge a merger provides at most only limited guidance under the total welfare standard.

The case for relying on “the views of customers” as a simple, shorthand, way of determining whether a merger is likely to enhance consumer welfare is not, however, anywhere as strong as some suggest.<sup>38</sup> Indeed, difficulties in applying this proxy are an important reason why competition authorities do not simply poll customers for their bottom-line views on a merger, but dig more deeply into the rationale behind customer views, where possible, examine “natural experiments,” and rely increasingly on sophisticated empirical techniques—particularly econometric analysis. These efforts tend to belie the claim of some that the First Theorem is a sure-fire and low-cost method of answering our ultimate questions.

Why can one not readily determine from “the views of customers” whether a merger is likely to satisfy the consumer welfare standard? The reasons are several. For one thing, typically there are many consumers with different demands and tastes. Polling a segment of them, particularly if price discrimination is not feasible and the sampled group are inframarginal, will not necessarily determine whether a merger is likely to produce a reduction in consumer welfare. Second, where the merger threatens potentially to raise price to each consumer by only a relatively small dollar amount, consumers are unlikely to have given serious thought to the question; they will rationally have found it unprofitable to invest in obtaining the information relevant to developing a strong and informed opinion.

Also very important is the fact that many, perhaps even most, mergers that come before competition authorities involve inputs, not final products. The immediate consumers of these inputs, and the ones most frequently quizzed about the merger’s likely impact, are not themselves final consumers. Unfortunately, the effects on some, or even all, of these customers can be quite different from the effects on the ultimate, “final,” consumers to whom they sell. Purchasers of intermediate goods frequently employ different production techniques in turning out competing

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<sup>38</sup> For a fuller discussion of the issues presented in this section, see Heyer, “Theories and Conjectures: What Can We Learn From the Views of Consumers?” (Forthcoming).

final goods. To the extent that some of these producers rely less heavily on a particular input than do others, the impact on the former group may be positive even if a merger threatens to raise the incremental costs for that firm and its rivals. In effect, firms that face relatively small cost increases may benefit on net from the fact that consumers shift towards them and away from competitors whose costs have increased even more.<sup>39</sup>

In addition, where final demand is inelastic and pass-through is likely to be nearly complete, intermediate goods customers may (correctly) believe that they will not be very much harmed by even a substantial post-merger increase in the price of what they buy. Final consumers, of course, are unambiguously harmed. Moreover, purchasers of intermediate goods who themselves already have substantial stocks of the input—either warehoused, or incorporated into final products not yet sold—may benefit from the higher incremental costs now faced by all from expanding and/or entering their markets. Again, final consumers would be left worse off, even as some (or even all) intermediate good producers benefit.

Finally, in some circumstances pass-through of a cost increase will be greater than one hundred percent,<sup>40</sup> and economists have shown that, depending on final demand conditions, higher marginal costs may actually increase the profits of intermediate goods customers.<sup>41</sup> The take-away from all of this is not that the views of customers are irrelevant in determining the likely effects of a merger. Rather, it is that the translation from consumer views to implementation of even a consumer welfare standard is often far from a simple task.<sup>42</sup>

All of this having been said, employing a total welfare standard would not be an easy matter either. Moreover, for reasons I now discuss, strict adherence to a total welfare standard would potentially lead to approval of a number of mergers whose likely effect on consumers is significantly negative.

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<sup>39</sup> For one famous instance of a strategic effort by some firms to raise their rivals' costs as well as their own, see Oliver Williamson, "Wage Rates as a Barrier to Entry: The Pennington Case in Perspective", 82 *Q.J. ECON.* 1, 85-116 (1968).

<sup>40</sup> For example, this is an implication of Cournot competition

<sup>41</sup> See Sheldon Kimmel. "Effects of Cost Changes on Oligopolists' Profits." 40 *The Journal of Industrial Economics.* 4, 441-449 (1992). For an analysis of circumstances under which intermediate goods customers may be harmed even as consumers benefit, see Daniel P. O'Brien & Greg Shaffer. "Bargaining, bundling, and clout: the portfolio effects of horizontal mergers." Working Paper (July 2004).

<sup>42</sup> It is worth mentioning also, that while final consumers are an excellent source of information about their own demands they cannot generally be expected to opine intelligently on other factors relevant to whether a merger will prove anticompetitive. In particular, it is not at all obvious that individual consumers will have reliable knowledge as to a proposed merger's prospects for generating merger-specific efficiencies, or whether in the face of a possible SSNIP entry can be expected to be "timely, likely and sufficient."

### *Distributional Considerations*

Distributional considerations raise at least two separate and distinct issues. The first is whether pure transfers among groups in society should be considered in merger policy. Again, the statute is silent on this issue.

Even if we were to grant that wealth distribution considerations are an appropriate focus of antitrust policy, would this provide clear support for use of a consumer welfare standard? Are we confident of the presumption that consumers impacted adversely by a merger are less wealthy than owners of the firms that may be achieving cost savings in addition to the consumer surplus they are diverting? Surely not all mergers are likely to have this effect, and we should therefore consider the potentially enormous costs of calculating in any given case the net distributional effect from employing a consumer welfare standard.<sup>43</sup>

To see that anticompetitive mergers need not have an adverse distributional impact, consider a proposed merger of all Mercedes Benz repair shops in a relevant geographic market. Assume that entry into the market is strictly prohibited; perhaps because of zoning restrictions enacted to prevent noise or congestion, or perhaps explicitly to protect these firms from additional competition. Under this fact pattern, should the antitrust authorities challenge the merger if our best economic analysis concluded that, post-merger(s), the profit-maximizing price for repairing Mercedes Benz automobiles would rise by 25%? Typically, one would think, a challenge would be appropriate, and that authorities should not be required first to determine whether the “deadweight” loss from a merger-induced price increase would be offset by a socially beneficial wealth transfer from rich automobile owners towards service station owners.<sup>44</sup>

Beyond the question of whether it is desirable in theory to take into account distributional effects,<sup>45</sup> it is not clear that one can at low cost confidently predict even the direction, much less the magnitude, of a merger’s distributional consequences. The owners of publicly traded corporations proposing to merge in an effort to capture savings not fully passed on to consumers are quite often an ordinary cross section of Americans, and doubtless include the life savings of retirees, as well as

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<sup>43</sup> Insert appropriate quote from Superior Propane.

<sup>44</sup> If station owners are generally poorer than their customers, should station owner cartels be permitted? Should they be *encouraged* to form?

<sup>45</sup> Arnold Harberger, in a recent paper, offers a plea for economists to accept as part of their “conventional framework for applied welfare economics,” the postulate that “when evaluating the net benefits or costs of a given action (project, program, or policy), the costs and benefits accruing to each member of the relevant group (*e.g.*, a nation) should normally be added without regard to the individual(s) to whom they accrue.” Arnold Harberger, “Three Basic Postulates for Applied Welfare Economics: An Interpretive Essay” pp. 785-797, *Journal of Economic Literature* (2001).

the proverbial widows and orphans.<sup>46</sup> Moreover, it is far from clear that the consumers of the products sold by firms proposing to merge operations in markets where competitive concerns arise are disproportionately in the lower wealth brackets. Finally, determining with any degree of confidence the impact on particular consumer groups from mergers in intermediate goods markets is likely to be even more difficult.

While a policy requiring calculations of not only the likely price effects, but also the likely distributional consequences of mergers would doubtless contribute significantly to the wealth of economic consultants and experts, the benefits to society from incurring these costs seem highly questionable. And if we are not even sure what a standard's distributional consequences are, it seems hard to justify use of that standard on the basis of its (unknown) distributional consequences. It is hardly obvious that a decision on whether to block a merger ought to depend in any way on whether, for example, service station owners are, on average, wealthier than their customers (or vice-versa). And even if it were costless to determine whether the consumers or the producers affected by a merger are wealthier, surely questions of wealth distribution are better handled through broad-based tax and subsidy programs, rather than via antitrust policy.<sup>47</sup>

Finally, and importantly, a merger policy that contributes to the overall size and growth of the economy generates larger total wealth—and at least part of the proceeds can, if society wishes, be used by fiscal authorities to aid, through targeted taxation and spending programs, those deemed to be most needy, or otherwise most deserving.

### *Some Additional Considerations*

#### a. The Costs of Rent-Seeking Behavior

Economists have long known that competition can at times be wasteful. That is to say, one really *can* have “too much of a good thing.” What does it mean to say, as a matter of economics, that something is “excessive”? Conduct can sensibly be defined as excessive when it is being engaged in past the point at which, from the standpoint of society as a whole, the value it adds is greater than its cost.<sup>48</sup> Pollution is one commonly used example of where negative externalities may be imposed by manufacturers on residents who are not compensated for harms they suffer. In such cases, it is easy

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<sup>46</sup> In addition, producer surplus, when not “passed through” to consumers in the form of lower prices, may be shared to some extent with suppliers of the firm's inputs—including labor.

<sup>47</sup> In any event, it seems very likely that the effect of even the most anticompetitive merger on the total wealth of individual consumers would be quite small. Raising by even 50% the price paid by the relatively poor for products impacted adversely by mergers—much less by only those mergers where shifting to a total welfare standard is likely to change the enforcement decision—seems unlikely to have a very great impact on their wealth.

<sup>48</sup> The maintained assumption is that rational actors engage only in conduct whose benefits to them are expected to exceed the costs to them.

to show that an activity—in this case, production by the manufacturers—may well proceed past the point at which its net value to the economy is positive.

Competition itself can in some cases create a negative externality—an uncompensated harm—that results in excessive entry or excessive product differentiation. The negative externality in these cases is felt not by consumers, but by incumbent producers. Nevertheless, it can result in entry and competition that, while beneficial to consumers in the market, is wasteful to the economy as a whole.<sup>49</sup>

Consider for example a market in which incumbent firms are earning significant margins and positive margins will remain even following competitive entry. In such cases, potential entrants will find that the costs of entering will be partly covered by revenues on business that the entrant “steals” from incumbents. To the extent that business can be stolen without a substantial cut in price (or improvement in quality), the benefits to consumers may fall far short of the associated costs—in particular, the fixed costs of entry.<sup>50</sup>

Part of what makes entry into a market profitable can be the margins that are shifted from incumbents to the entrant. From the standpoint of society as a whole, however, these are merely transfers from one firm to another. Nevertheless, the prospect of capturing these margins can in some instances make entry profitable, despite the fact that, from the standpoint of the economy as a whole, entry does not pass a cost-benefit test.<sup>51</sup> In addition to investments in entry, investments in product differentiation can, for similar “business stealing” reasons, be wasteful as well.<sup>52</sup>

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<sup>49</sup> Antitrust scholars, most notably Richard Posner, have argued that the drive to obtain market power can transform rents into costs. Posner, Richard, “The Social Costs of Monopoly and Regulation,” 83 *J. Pol. Econ.* (1975). Whatever the power of this logic in general, the argument appears to have questionable applicability to mergers in particular. As Williamson summarizes after responding to this argument in some detail in his “Economies as an Antitrust Defense Revisited,”

“Plausibility standards plainly vary. Those who are easily persuaded that managers enjoy extensive insularity [from stockholder control], that managers *fully* credentialize on the basis of low probability events, and that the marginal utility of money is fairly constant will conclude that exhaustive *ex ante* rent transformation occurs in the merger context, as required by Posner’s theory. On the other hand, those who are skeptical of any of these assumptions will conclude that rent transformation will be incomplete. As for myself, I believe that the insularity assumption is the most doubtful. Absent this assumption, the entire argument collapses.” [718]

<sup>50</sup> It is hard to imagine there being a serious competitive problem with a merger of two or more of the many high-price coffee shops located within walking distance of my office in downtown Washington, DC, and I admit to wondering whether some of the fixed costs incurred from all of this entry might not be wasteful from the standpoint of society as a whole.

<sup>51</sup> See Gregory N. Mankiw & Michael D. Whinston, “Free Entry and Social Inefficiency,” 17 *RAND J. Econ.* 48, 55-57 (1986), which discusses various entry biases and examines the tendency toward excessive entry in homogeneous

These considerations suggest a theoretical case for actually prohibiting entry at times, though it is worth mentioning also that, in theory, markets can suffer equally from *insufficient* entry.<sup>53</sup> The antitrust laws are not employed to keep out competitive entry, nor would many propose that they be used for that purpose.<sup>54</sup> Consumers in markets where even “excess” entry occurs clearly benefit. The benefits include not only lower prices, but also the prospect for highly valued variety and better products, not to mention the incentive that the entry threat provides for incumbents to minimize costs and identify and satisfy consumer demands. Determining ex ante whether the costs of entry are likely to exceed its many potential benefits seems clearly too daunting a task to take on.<sup>55</sup>

Given how costly—and potentially harmful—it may be to implement a total welfare standard that takes these theoretical possibilities into account, one could argue that it would be best, all things considered, simply to stick with a consumer welfare standard. And yet, the difficulties of administering a total welfare standard do not seem so large, or so “welfare-standard-specific” that they offset the strong case for using what is otherwise a far more desirable welfare criterion. Determining whether a merger is likely to raise total welfare requires an estimate of a) the merger’s effect on allocative efficiency via the ability of firms profitably to raise price (or otherwise harm consumers of their products) and b) the cost savings, if any, that are specific to the merger. In

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product markets. *See also* Michael Spence. “Product Selection, Fixed Costs, and Monopolistic Competition,” 43 *Review of Economic Studies*, 217-236 (1976a) and A.K. Dixit & J.E. Stiglitz. “Monopolistic Competition and Optimal Product Diversity,” 67 *American Economic Review*, 297-308 (1977) which discuss the possibility of free entry resulting in too little entry relative to the social optimum in a monopolistically competitive market. Finally, *see* Chiang-Tai Hsieh & Enrico Moretti. “Can Free Entry Be Inefficient? Fixed Commissions and Social Waste in the Real Estate Industry,” 111 *Journal of Political Economy*, 5, 1076-1122 (2003) which attempts empirically to estimate the cost of excess entry into the Real Estate Industry.

<sup>52</sup> *See* Michael Spence. “Product Differentiation and Welfare,” 66 *American Economy Review*, 407-414 (1976b). *See also* Steven C. Salop & Jeffrey M. Perloff. “Firm-Specific Information, Product Differentiation, and Industry Equilibrium.” 38 *Oxford Economic Papers*, New Series. Supplement: Strategic Behaviour and Industrial Competition, 184-202 (1986), and Dixit & Stiglitz, *ibid*.

<sup>53</sup> *See*, for example, Chaim Fershtman and Ariel Pakes, “A Dynamic Oligopoly with Collusion and Price Wars.” 31 *RAND J. Econ.* 2, 207-236 (2000). There, the authors show that where fixed costs are significant, marginal costs are low, and post-entry pricing is Bertrand, total welfare can be enhanced by permitting post-entry collusion. In certain circumstances total welfare can be enhanced also by having the government subsidize entry or limit the freedom of an incumbent to respond to an entrant’s lower prices. *See*, for example, Aaron S. Edlin and Joseph Farrell, “The American Airlines Case: A Chance to Clarify Predation Policy” *UC Berkeley Competition Policy Center Working Paper No. CPC02-33* (November 2002).

<sup>54</sup> The argument that entry should be prohibited on grounds that its costs exceed its benefits has, however, been employed in regulatory proceedings—typically by incumbents claiming to be natural monopolies. *See*, for example, Paul W. MacAvoy, Daniel F. Spulber and Bruce E. Stangle. “Is Competitive Entry Free? Bypass and Partial Deregulation in Natural Gas Markets.” 6 *Yale Journal on Regulation*, 209-248 (1989).

<sup>55</sup> Numerous economic studies have documented the substantial costs of having regulators determine when entry ought to be permitted [CITES].

principle, the analyst needs to evaluate these two effects and calculate their net welfare effect under either a consumer, or a total welfare standard.<sup>56</sup>

#### b. Transparency

One might agree with the policy proposal put forward in this paper--that competition authorities should be employing a total welfare standard--yet also feel that if a change is to be made, it would be best that it not be made very publicly or transparently. A formal policy change of this type could well generate considerable flak and controversy. Might it be best, all things considered, to implement it through the use of prosecutorial discretion not to bring wrong or difficult cases?

Apart from objections in principle to the idea that open debate should be discouraged because the public would simply not support such a change, there are a number of practical adverse consequences from being less than candid about the standard that the competition agencies will apply. For one thing, if parties do not know that certain types of efficiencies are going to be credited by the authorities, they are far less likely to present the types of evidence and analysis required for those efficiencies to be credited. For another, in some circumstances the government may elect to file a case and the defendants will present to the court an efficiency justification that would in theory be credited under a total welfare standard, but which would not be credited under a consumer welfare standard. If total welfare is not the standard officially employed by antitrust officials, one can expect government prosecutors and their experts to argue strenuously that benefits unlikely to be fully passed through to consumers in the relevant markets of concern "do not count." This would be, in my view, unfortunate, and may help lead a court to rule in favor of the plaintiff wrongly, or at least for the wrong reasons. It may also complicate the ability of authorities to implicitly credit savings in producer surplus and appropriately to exercise prosecutorial discretion in the future.

#### *Conclusions*

More and more antitrust practitioners, both here and abroad, have expressed an interest in incorporating into merger analysis the effects of merger-generated efficiencies. The analysis in this article argues that if we are going to do it<sup>57</sup>, we might as well do it right, and that use of a total

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<sup>56</sup> As discussed in Ken Heyer. "A World of Uncertainty: Economics and the Globalization of Antitrust." (2005), an optimal policy under conditions of uncertainty would take into account the costs of both Type I and Type II errors. Decisions would be made based on the expected value of a merger's effect on welfare, not simply a point estimate.

<sup>57</sup> Some serious antitrust scholars, including Richard Posner and Robert Bork, have concluded that explicit case-by-case consideration of merger-specific efficiencies, and by implication the use of an "efficiencies defense," is simply too

welfare standard appears to be not only the theoretically best standard to employ, but also one that can be employed with no significant increase in administrative costs.

And there is a somewhat broader point worth making. Use of a consumer welfare standard in antitrust inherently casts consumers as those who count, and producers as those who don't. This is unfortunate, in my view, for reasons that go well beyond those laid out in this article. For one thing, producers, it bears remembering, happen also to be consumers. Indeed, they've been seen shopping after work, and on their days off. Moreover, there seems good reason to value the welfare of those who produce what we consume as highly as those who do the consuming.

Defense of a welfare standard that ignores the welfare of producers contributes to a perception that producers exist only to benefit those to whom they sell, and that the welfare of those actually doing the producing--often at significant cost and risk--is itself of no value. It thus contributes to a mind set that favors all manner of efficiency-reducing policies to benefit select groups of consumers at the expense of producers, despite the negative effect such policies have on overall economic welfare--certainly in the long run, and often in the short run as well.

Quite apart from whatever economic benefits would result from putting antitrust policy on a more economically sensible footing, these considerations argue in favor of doing so as well.

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difficult to conduct in practice and should therefore not be a formal part of merger analysis and litigation. See Richard A. Posner, *Antitrust Law*, 2<sup>nd</sup> Edition. University of Chicago Press (2001). Bork, *op.ci.t.*, *see fn* 8.