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The Economics of Welfare Standards in Antitrust

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There has been considerable debate concerning whether consumer surplus or total surplus should be the welfare standard for antitrust. This debate misses two critical issues. First, antitrust is not straightforwardly welfarist—it does not maximize but protects, and it does not forbid all actions that seem likely to lower some welfare measure. Rather, antitrust enforcement has both process and consequence components: anticompetitive actions that harm consumers are illegal but other actions that harm consumers are not. Second, the enforcement process involves multiple steps and multiple decision makers. Mergers, for instance, are proposed by the merging parties, reviewed and perhaps challenged by antitrust agencies, and reviewed by courts. Hence, a full discussion of what standard is or should be applied must specify by whom and how it fits in the overall process. We conclude that, while some popular arguments for a consumer surplus standard are weak, other arguments have some merit.

I. Introduction

What standard should antitrust analysis use to evaluate alternative outcomes? Economists often state that total surplus—the sum of producer surplus and consumer surplus—is the most sensible objective and that consumer surplus is used only because lawyers so interpret the relevant statutes.[1] In this paper, we conclude that the economic issues are much more subtle and less resolved than is generally understood. In large part, these issues are poorly understood because most of the debate has addressed the wrong question. Asking what welfare standard should be applied in antitrust enforcement conflates two separate questions. First, what should be antitrust policy's ultimate goal? Second, what objectives should specific agents (notably the antitrust agencies and the courts) within the antitrust enforcement system apply in their enforcement decisions?

We will argue that total surplus is an appropriate ultimate goal for antitrust enforcement, but that the case for basing enforcement decisions on analysis of total surplus is much less clear. We believe that total surplus is an appropriate ultimate objective because, as others have argued, there is a natural division of labor between efficiency-oriented policies and policies aimed at improving the distribution of income, and antitrust policy fits much better into the first category. Thus, we conclude that a sensible final goal of antitrust policy is to maximize total surplus without regard to distributional considerations.

It does not follow that antitrust agencies or courts should adopt a decision rule of the form: challenge or block behavior if and only if that behavior looks likely to lower total surplus. The antitrust enforcement process involves multiple steps and multiple decision makers. Mergers, for instance, are proposed by the merging parties, reviewed and perhaps challenged by antitrust agencies, and reviewed by courts. Hence, a full discussion of what standard is or should be applied must specify by whom and how it fits in the overall process. For several reasons, which we discuss below, it may be optimal to have specific agents within the broader system act to maximize a different objective (e.g., consumer surplus) even when the ultimate goal of antitrust policy is to maximize total surplus.

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1   Consumer surplus is, in turn, defined as the difference between what a consumer is willing to pay for a good or service and what he or she actually pays. Producer surplus is defined as the amount of income a producer receives in excess of what it would require in order to supply a given number of units of a good or service. Intuitively, producer surplus can be thought of as economic profits. Another way of thinking about total surplus is that it is consumption benefits measured in dollars minus the costs of production.

     For a discussion of some technical issues concerning the use of the measures in the presence of income effects and multiple commodities, *see* ANDREU MAS-COLELL, MICHAEL D. WHINSTON, & JERRY R. GREEN, MICROECONOMIC THEORY §10.C (1995) and JEAN TIROLE, THE THEORY OF INDUSTRIAL ORGANIZATION 7-12 (1993). *See also* R.D. Willig, *Consumer Surplus without Apology*, 66 AM. ECON. REV. 589 (1976) and Jerry A. Hausman, *Exact Consumer Surplus and Deadweight Loss*, 71 AM. ECON. REV. 662 (1981).

II. What Did Congress Intend and What Do Enforcers Do?

We begin by summarizing the debate regarding whether the total surplus effects or consumer surplus effects are the basis for determining the legality of firm conduct under U.S. antitrust policy. We argue that the standard currently applied is neither, because whether antitrust law allows particular conduct depends not just on the consequences of that conduct but also on characteristics of the conduct itself.

The major antitrust statutes are remarkably brief and vague, spawning widespread disagreement regarding antitrust goals and standards. Although one might imagine a wide variety of goals, almost all the debate features two or three contending criteria: consumer surplus, total surplus, and (unfashionably) the welfare of competitors.[2] These goals all are welfarist objectives in that each is a function only of economic agents' utility levels, not of the process by which those utilities are obtained or of other aspects of the outcome (e.g., whether consumers' behavior was legal or whether they consume cigars or tofu).

Robert Bork argued that the U.S. Congress intended a total surplus standard, which he confusingly called a "consumer welfare" standard.[3] Others, including Robert Lande, have argued that the U.S. Congress intended a true consumer welfare standard under which the Sherman Act would facilitate wealth transfers from producers to consumers.[4] Steven Salop argues that the current standard is a consumer surplus standard, basing his argument, in part, on the claim that efficiencies play little role in the actual practice of merger policy.[5]

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2 We focus on the Sherman Act and Section 7 of the Clayton Act. There appears to be consensus that the Robinson-Patman Act sought to protect competitors in a way that today is widely discredited. Arguably the recent *Volvo* decision seeks to move Robinson-Patman away from that standard. Volvo Trucks North America, Inc. v. Reeder-Simco GMC, Inc., No. 04-905 (U.S. Jan. 10, 2006).

3 *See, e.g.*, Robert H. Bork, *Legislative Intent and the Policy of the Sherman Act,* 9 J.L. & Econ. 7, 7-48 (1966).

4 Robert H. Lande, *Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged,* 34 Hastings L.J. 65, 65-151, (1982). *See also* Robert H. Lande, *Proving the Obvious: The Antitrust Laws Were Passed to Protect Consumers (not Just to Increase Efficiency),* 50 Hastings L.J. 959, 963-66 (1999).

5 Steven C. Salop, *Question: What is the Real and Proper Antitrust Welfare Standard? Answer: The True Consumer Welfare Standard,* Statement before the Antitrust Modernization Commission §II.A (Nov. 4, 2005), *available at* http://www.amc.gov/public_studies_fr28902/exclus_conduct_pdf/051104_Salop_Mergers.pdf. *But see* William Kolasky & Andrew Dick, *The Merger Guidelines and the Integration of Efficiencies into Antitrust Review of Horizontal Mergers,* 71 Antitrust L.J. 207, 207-251 (2003) (arguing that efficiencies are important in the process).

Although those contributions contrast the consumer surplus and total surplus welfare standards,[6] others argue that they are nearly equivalent in a long-run perspective because short-run profits spur firms to serve consumers' long-run interests.[7] Indeed, as noted above, Bork thought it proper to dub a total surplus standard a "consumer surplus" standard.

This attempt to defuse the debate fails, however, because even if changes in consumer and total surplus approximately coincide in the very long run, antitrust probably cannot—and surely does not—conduct a very long-run analysis to evaluate a specific case. An analysis with a shorter time horizon (in practice, often two years) may well predict that consumer and total surplus will move in opposing directions. For instance, in the Canadian *Propane* case, the court apparently believed that the merger should be approved under a total surplus standard and blocked under a consumer surplus standard.[8]

Christopher Grandy departs from this consumer surplus-total surplus debate in two ways. First, he argues that Congress meant the Sherman Act to protect competitors rather than consumers. Second, he argues that this protection was meant only against acts that could naturally be called anticompetitive.[9]

This second departure is important. Claims that U.S. antitrust policy imposes a consumer or total welfare (or any welfarist) standard omit a crucial element of antitrust: that antitrust policy examines not only consequences (the change in consumer or total welfare), but also the process (the nature of the acts) that generates the consequences. Specifically, while antitrust may prohibit firms from harming consumers and/or efficiency, it does so only to the extent that firms do so through actions that are deemed anticompetitive.

For example, the models of medium-term effects that antitrust economists tend to use predict that entry into an oligopolistic market by an inefficient producer or

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6   In a classic paper, Williamson argued that the use of a total surplus standard could make a very big difference in evaluating mergers that give rise to production efficiencies. Oliver E. Williamson, *Economies as an Antitrust Defense: the Welfare Trade-offs,* 58 Am. Econ. Rev. 18 (1968), *reprinted in* 1 Competition Pol'y Int'l 217 (2005).

7   *See, e.g.*, Steven C. Salop, *Efficiencies in Dynamic Merger Analysis,* Statement before the U.S. Federal Trade Commission (FTC) Hearings on Global and Innovation-Based Competition (Nov. 2, 1995), *available at* http://www.ftc.gov/opp/global/saloptst.htm, who argues that taking a dynamic perspective reduces the tension between total surplus and consumer surplus standards. For a discussion of why the dynamic perspective does not fully eliminate the tension, *see* Salop, *supra* note 5, §III.A.1.

8   Commissioner of Competition v. Superior Propane, Inc. (2003) 3 F.C. 529. *See* Thomas Ross & Ralph Winter, *The Efficiency Defense in Merger Law: Economic Foundations and Recent Canadian Developments,* 72 Antitrust L.J. 471, 471-503 (2005). Ross and Winter argue that the court may have misapplied the total surplus standard as a matter of economics: they conclude that the incremental deadweight loss due to the predicted price increase was drastically underestimated by being calculated as if the pre-merger price were at marginal cost.

9   Christopher Grandy, *Original Intent and the Sherman Antitrust Act: A Re-examination of the Consumer-Welfare Hypothesis,* 53 J. Econ. Hist. 359, 359-379 (1993).

in an industry with large economies of scale may well reduce total surplus. But we would be surprised if any court ruled that stand-alone entry harmed competition.[10] Similarly, a claim of excessive competition is unlikely to be a winning defense of price fixing.[11] Evidently, either we don't trust those models, or we don't believe in a purely welfarist total surplus standard.

One response is that entry plainly increases competition in a layman's sense of the term. To a lawyer, that might be the end of the story—an end that proves that antitrust is not purely welfarist. A sympathetic economist might be more apt to say that the models are informative but not conclusive concerning the effect of entry on surplus, and must be weighed against the well-established view that competition generally promotes efficiency. In other words, even in relatively simple problems such as stand-alone entry into an oligopolistic industry, our specific analyses inevitably omit much, and their conclusions must be taken with a certain amount of judgment. Here, a not unreasonable judgment might be that entry typically promotes total welfare in the long run more than the models capture.[12] This sophisticated view is compatible with subtle versions of the welfarist position that antitrust seeks to promote total surplus in the end, but it is incompatible with the strong form of the welfarist position that antitrust enforcement decisions should be based on an industry-specific, fact-intensive, detailed prediction of the effects that the conduct under examination has on total surplus.[13]

> CLAIMS THAT U.S. ANTITRUST POLICY IMPOSES A CONSUMER OR TOTAL WELFARE (OR ANY WELFARIST) STANDARD OMIT A CRUCIAL ELEMENT OF ANTITRUST: THAT ANTITRUST POLICY EXAMINES NOT ONLY CONSEQUENCES (THE CHANGE IN CONSUMER OR TOTAL WELFARE), BUT ALSO THE PROCESS (THE NATURE OF THE ACTS) THAT GENERATES THE CONSEQUENCES.

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10 That said, the antitrust treatment of exclusive dealing does allow for the possibility that monopoly is preferable to competition in some circumstances within a vertical relationship.

11 Indeed, in *Professional Engineers*, the Supreme Court stated that "the Rule of Reason does not support a defense based on the assumption that competition itself is unreasonable." *See* National Society of Professional Engineers v. United States, 435 U.S. 679, 696 (1978).

12 Elsewhere, one of us has applied somewhat analogous reasoning to the economics of payment-card fee structures and interchange. Joseph Farrell, *Efficiency and Competition Among Payment Instruments*, 5 REV. NETWORK ECON. 26, 26-44 (2006) (suggesting that competition policy might wisely promote privately optimal—rather than socially optimal as estimated in models—choice by customers).

13 One can argue that merger policy also reflects a view that enforcement decisions should not be based solely on detailed, case-specific predictions of welfare effects. Specifically, horizontal mergers are typically allowed if it can be shown that there would be small competitive effects—without any formal assessment of efficiencies. This process reflects the existence of what has been called a "standard deduction" for merger efficiencies. *See* Michael Salinger, Director of the FTC Bureau of Economics, Four Questions About Horizontal Merger Enforcement, Presentation to American Bar Association Antitrust Section Economics Committee Brown Bag (Sept. 14, 2005), *available at* http://www.ftc.gov/speeches/salinger.htm. Kolasky & Dick, *supra* note 5, describe what they term the Chicago School view that agencies and courts are unlikely to be good at evaluating claims of efficiencies, which might imply advantages of a standard deduction over requiring or even allowing firms to itemize.

Alternatively, one might observe that, even if it reduces total surplus, entry into oligopoly (both in theory and practice) generally benefits consumers; thus consensus approval of such entry might reveal that the implicit welfare standard is consumer surplus rather than total surplus.[14] But this argument, too, is weak. Antitrust proudly eschews plenty of opportunities to promote consumer surplus, at least in the short or medium run. In particular, monopoly pricing is not itself illegal in the United States. Indeed, in its recent *Trinko* decision, the U.S. Supreme Court opined that "the mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system," and that "to safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive *conduct*."[15] The Court is apparently reasoning that this rule promotes total or consumer surplus in the long run, so the policy is consistent with having a welfarist standard in the top-level sense. But the rule is not one that would emerge if agencies were to pursue total surplus or consumer surplus as estimated by available facts and economic models in particular cases.

Thus, in antitrust as it is practiced, both consequences and process count: it never answers only the question "does this practice reduce some measure of surplus?" It is incomplete and potentially misleading to say that antitrust protects consumer surplus, total surplus, or rivals' profits. Rather, conduct can violate the antitrust laws only if it is held to harm competition. As many have noted, the concept of harming competition is often hard to interpret, and too naïve an interpretation would prohibit many beneficial agreements. Thus, the law has evolved toward prohibiting only acts that both (a) hurt competition in an ordinary (if sometimes vague) sense and (b) hurt efficiency and/or consumer surplus. The debate over the so-called "standard" is the debate over the standard applied in prong (b). We think that the debate is clarified by keeping this two-pronged criterion explicit, and not seeking to have the second prong redefine the word "competition" or claiming that antitrust is straightforwardly welfarist.[16]

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14 Steven Salop, *supra* note 5 at 10 & 11, appears to hold this view. Although we could imagine someone coming to a general judgment that total surplus is in the long run best promoted by putting zero weight on the profits of disappointed competitors while otherwise relying on an antitrust-style medium-run analysis, it is certainly not what would naturally be meant by "applying a total-surplus standard."

15 Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004)(emphasis in original); *see also* R. Hewitt Pate, Assistant Attorney General, Competition and Intellectual Property in the U.S., Speech to EU Competition Workshop (June 3, 2005) *available at* http://www.usdoj.gov/atr/public/speeches/209359.pdf ("if a monopoly is lawfully obtained...we do not even object to setting a monopoly price.")

16 *See* Joseph Farrell, *Complexity, Diversity and Antitrust*, 51 Antitrust Bulletin 156 (Spring 2006) (arguing that it is a mistake to try to collapse these two components into a redefinition of the word competition to (almost) mean a surplus standard).

Some economists promote welfarism as a sine qua non of reasoned policy analysis. For instance, Ross & Winter, *supra* note 8 at 474, write that "welfarism...may appear so obvious that it must be

Merger policy—the bulk of agency antitrust practice—might appear to contradict our claim that there are two prongs, because merger enforcement focuses purely on consequences (i.e., competitive effects and efficiencies). But we would argue that this focus is consistent with our interpretation because almost all horizontal mergers satisfy prong (a); that is, they reduce competition in a natural sense. Hence, merger analysis can focus on whether a transaction satisfies prong (b). And even here, the process is not truly welfarist. In particular, with minor exceptions, even merger policy does not seek to maximize a welfare measure, but only tries to ensure that such a measure does not fall as a result of a merger.[17]

Having established that there are two prongs to the analysis, we will spend the rest of this essay considering the relative merits of consumer surplus and total surplus as welfare standards in prong (b).

III. Do Distributional Concerns Justify Use of a Consumer Surplus Standard?

Perhaps the leading philosophical claim made in favor of a consumer surplus standard is that it better reflects society's judgments about the appropriate distribution of economic welfare than does a total surplus standard. The use of total surplus implicitly assumes that the distribution of income is socially optimal, so that taking a dollar away from one member of society and giving it to another member would not affect social welfare. As one textbook put it,

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footnote 16 cont'd

satisfied in any serious discussion of merger analysis. [...The view] that competition policy is about `protecting competition' [...] is without economic foundation." Although we agree that total surplus is the appropriate ultimate objective of antitrust enforcement, this view does not imply that day-to-day antitrust enforcement should be based on seeking in the instance to evaluate a welfarist measure. Because it is impossible to predict long-run effects with certainty, it could easily be consistent with a long-run welfarist view to adhere to well-chosen non-welfarist principles (e.g., protect competition). Kolasky & Dick, *supra* note 5 at 207, write that "it is efficiency, not competition, that is the ultimate goal of antitrust...`efficiency is the goal, competition is the process'."

17 With fairly limited exceptions, antitrust does not ask whether an alternative merger would yield higher welfare: the U.S. Dep't of Justice & Federal Trade Commission, Horizontal Merger Guidelines §5.1 (1992) (as amended Apr. 8, 1997) *reprinted in* 4 Trade Reg. Rep. (CCH) ¶13,104 (hereinafter "Merger Guidelines") contain provisions for checking whether a failing firm is being sold to the best acquirer from a welfare perspective, and in evaluating efficiencies, the Merger Guidelines §4 discuss examining whether an alternative deal would achieve the efficiencies without the adverse competitive effects. However, it generally is not the case that a merger can be successfully challenged on the grounds that a different merger would yield higher consumer or total surplus. Similarly, when an exclusive dealing contract is challenged, there is not a full-blown investigation to determine the best possible vertical contract from the perspective of social welfare.

"Implicit in our use of total surplus is the claim that society is best off when the total surplus is maximized. But you might be worried that there is some kind of value judgment behind that claim. If you are, you are correct; there is. The value judgment is that a dollar to each person is given the same weight, whether that person is a consumer or a producer, rich or poor."[18]

It is, however, a widely held view that an additional dollar is worth more to society in the hands of a poor person than those of a rich one. This view underlies the support for a variety of redistributive policies, including progressive income taxation and the provision of government-subsidized health insurance for low-income families.

There are at least three rationales for antitrust enforcement's use of total surplus as a measure of social welfare even in the presence of such distributional concerns. The first is to view the use of total surplus as a response to uncertainty about distributional effects. For instance, the 1991 Canadian *Merger Enforcement Guidelines* stated: "[w]hen a dollar is transferred from a buyer to a seller, it cannot be determined *a priori* who is more deserving, or in whose hands it has a greater value."[19] If enforcers do not, or cannot, undertake a case-by-case determination of relative deservingness, then it may be best simply to assume that all affected parties are equally deserving.

A second rationale is the following. If outcome A yields greater total surplus than outcome B, then in principle it is possible to design a system of wealth transfers, starting from A, such that at least one person ends better off than in B and no one is worse off. This idea is known as the Kaldor-Hicks criterion.[20] If the redistribution is actually done, then A is preferred by all parties to B. In practice, however, such compensation often is impossible given the limited available information about effects of A versus B on individual consumers and producers. And, when compensation is not paid, some parties typically will prefer B to A. Hence, the use of a total surplus standard imposes particular value judgments. The rationale in this case can loosely be stated as adopting a principle of maximizing total surplus and then counting on the process to balance out gains and

18 MICHAEL L. KATZ & HARVEY S. ROSEN. MICROECONOMICS 362 (3rd ed. 1998).

19 Part 5.5, footnote 57, *available at* http://www.competitionbureau.gc.ca/internet/index.cfm?itemID=1682&lg=e , with the notation that (in view of Superior Propane, cited supra) "This Part no longer applies. Readers should consult the decision of the Federal Court of Appeal in the Commissioner of Competition v. Superior Propane Inc. and ICG Propane Inc 2001 FCA 104."

20 *See* J. de V. Graaf, THEORETICAL WELFARE ECONOMICS 82-90 (1963). There are also technical conditions regarding the size of income effects that may come into play.

losses over time to ensure a fair distribution of economic benefits. This rationale builds on the uncertainty idea above. Suppose that enforcement decisions are always made to maximize total surplus. Then, on average, everyone will be as well off as possible. Nonetheless, any particular individual or firm may be better or worse off than if different decisions were made.

The lack of a guarantee leads to the third rationale for use of total surplus as antitrust's measure of social welfare even in the presence of distributional concerns. This rationale is a division of labor among public policies: if antitrust enforcement and some other public policies focus on total surplus, other public policies can redistribute that surplus in accord with notions of fairness.[21] A number of reasons suggest that antitrust policy is poorly suited as a redistribution vehicle in comparison with various tax and subsidy schemes.[22] Its principal shortcoming is that antitrust enforcement does not, and—without a fundamental change in the nature of analysis—cannot, take a comprehensive view of distribution. It would become necessary to examine the relative income distributions among consumers, workers, and firm owners. In many instances, data would be lacking.

To illustrate this shortcoming, consider how a consumer surplus standard handles distributional issues. Consumer surplus can provide a very a poor approximation to a welfare measure that weights impacts using ordinary notions of distributional preferences. One reason is that rich and poor consumers may be differentially affected by an antitrust decision; distributional concerns would suggest weighting the impact on the poor more heavily, but a consumer surplus standard insists that they count equally. If a central goal of antitrust enforcement is to redistribute income, then why treat rich and poor consumers alike? Another problem with using consumer surplus to embody a preference for wealth redistribution from rich to poor is that the owners and workers of firms are people too. Use of a consumer surplus standard entails treating all consumers as equally deserving at the margin, yet treating the same people unequally in their roles as workers and capital owners. The merger of makers of expensive fountain pens illustrates how a consumer surplus standard can go wrong in this regard.[23] Lastly, when the market is not a final-goods market, the direct buyers are themselves firms, so a natu-

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21 Steven Salop, *supra* note 5 at 17, recently argued against this rationale on the grounds that the tax authorities do not compensate members of society for the wealth transfers induced by specific mergers or anticompetitive firm conduct on a case-by-case basis and that, if authorities did so, the transactions costs would be enormous. This criticism misses the point that, in the face of transactions costs, it is desirable to implement policies that work well on average (rather than exactly case by case) even when one has strong distributional preferences. Instead, taxes and various social subsidy programs are intended to equalize the marginal social value of income across consumers, subject to informational constraints and the need to take transactions costs into account.

22 Not all commentators might agree. Lande, *supra* note 4, for instance, has argued that Congress intended antitrust largely as a strategy for wealth redistribution.

23 United States v. Gillette Co. & Parker Pen Holdings, Ltd., 1993-1 Trade Cas. (CCH) ¶ 70,210 (D.D.C. May 5, 1993).

ral interpretation of a consumer surplus standard favors buying firms over selling firms.[24] We are aware of no evidence that the wealth distribution of shareholders varies systematically according to a firm's place in the value chain.

A different argument for use of a consumer surplus standard is based on imperfections in corporate governance. There is evidence that part of free cash flow coming into widely held corporations is dissipated by managers serving their own interests rather the owners'. Although such expenditures promote managers' welfare, they are likely to be inefficient because managers are constrained in how they can spend these funds without running afoul of corporate governance. This observation might justify underweighting increases in profits (before dissipation) relative to changes in consumer surplus. But as the quotation from *Trinko* cited earlier in this paper notes, profits also can induce efficient investment, so this argument does not provide strong support for use of a consumer surplus standard.

In summary, we believe that antitrust is not a good policy tool for redistributing income, and even if it were, we doubt that distributional concerns provide a sound basis for preferring a consumer surplus standard over a total surplus standard.

IV. A System-Level Perspective: Decision Rules versus Objectives

Most antitrust economics literature assumes policy optimization by a single decision maker. In fact, antitrust enforcement involves multiple layers of decision makers. In a multi-layered decision process, one should not presume that each participant is or should be tasked with maximizing the overall objective.

Two important examples illustrate this general point. First, in the U.S. advocacy legal system, although parties' lawyers are officers of the court, legal ethics charges them primarily to be their clients' advocates, even though the final goal is justice. Second, suppliers in competitive markets pursue profits, yet act to maximize total surplus; as Adam Smith noted, "it is not from the baker's benevolence that we expect our bread." As these examples make clear, commentators should not simply jump from a belief that welfare measure W is the appropriate final goal to a belief that the agencies ought to base their challenges to firm conduct on estimates of that conduct's effects on W. The rules that particular decision makers within the overall system should use could well differ from the ultimate goal of antitrust policy.

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24 Here we assume that the analysis focuses on the immediate impact on direct buyers. When direct buyers are not final consumers, subtle economic issues arise regarding pass-through. For a discussion of how this was debated in the context of the proposed merger between Heinz and BeechNut, *see, e.g.,* Jonathan Baker, *Heinz Proposes to Acquire BeechNut, in* THE ANTITRUST REVOLUTION (John Kwoka & Lawrence White eds., 4th ed. 2004).

Both internal and external considerations might affect what standard the agencies and agency staff should use. Internal considerations concern the motivation and compensation of agency staff and management. External issues include: accounting for self-selection by the firms triggering investigations (e.g., choosing to merge in the light of their predictions of how the proposed transaction will be treated); the generally weak participation in the process by final consumers; and the passive or reactive role of the courts as adjudicating agency challenges but not themselves initiating challenges. Figure 1 provides one schematic and simplified overview of the process. The lines indicate points at which various parties may first enter the system. We use dashed lines to represent the fact that—because they are typically numerous, unorganized, and have small individual stakes in the outcome—consumers often play a more limited role in the proceedings than do other parties. Among the diagram's simplifications, it does not illustrate the various components of decision making within the agency, and there may be one or more additional rounds of appeal.

Figure 1

An agency or court is one component of a complex system
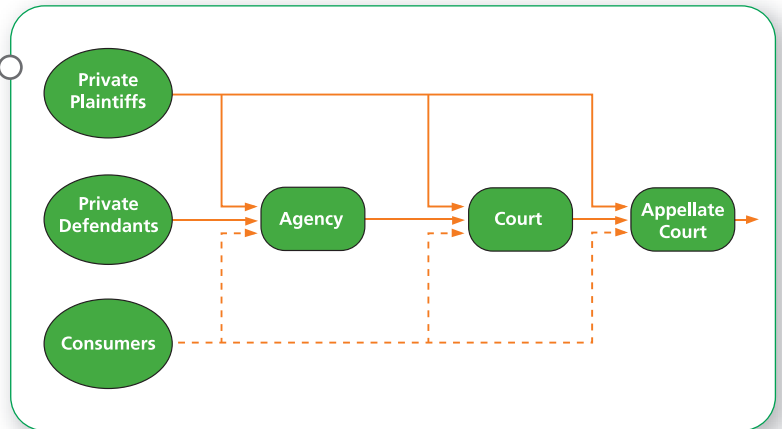
Internal issues would arise even if the agency were a dictator; external considerations arise because it is not. That said, the issues overlap. Just as the overall enforcement system comprises several decision makers playing different roles, so does a single agency's decision-making structure. For instance, staff members typically investigate firm conduct and then make recommendations to management personnel who serve as gatekeepers. We proceed by very briefly discussing internal considerations and then discussing several external considerations in turn. We examine a series of models, which establish that, even when the overall objective of antitrust policy is to maximize total surplus, it may be optimal to instruct specific antitrust enforcers to pursue decision rules based on alternative welfare measures.

A. INTERNAL CONSIDERATIONS

Antitrust agencies are not unitary decision makers. Instead, they are organizations (with important elements of hierarchy) in which many different people participate in decisions. To illustrate some of the issues, consider a stylized simple agency with only two members. The staff member collects information, analyzes it, and makes a recommendation to the agency manager. In our experience, such recommendations recite some, but not all, of the underlying information collected. Based on the information forwarded to him or her, the manager decides whether to proceed to litigation. If there is litigation, the staff member argues the case in court.

The decisions made by the staff member and manager will depend on their personal preferences and the nature of their compensation. Presumably success or failure in litigation will affect the staff member's compensation, at least in the long run. Thus, a rational staff member will take into account the probability of winning the case when making a recommendation to the manager. There may also be selection issues: economists and lawyers who choose to work in the government are unlikely to be a random sample of all economists and lawyers. This self-selection can matter because antitrust enforcement clearly entails important elements of judgment. In the presence of these internal considerations, it is not self-evident what the optimal standards to ask the staff and management to pursue are.

B. SELECTION BY THE PARTIES

Antitrust enforcement arises in response to actions taken by firms. If two firms do not wish to merge, antitrust never requires them to do so. Similarly, if a manufacturer enters into exclusive contracts with its distributors, the agencies may investigate and challenge that practice, but they do not proactively force the firm to adopt a specific contractual regime. The fact that antitrust enforcement is reactive gives firms important influence over antitrust outcomes.

Two recent papers on merger analysis investigate implications of the fact that firms choose which mergers are proposed and, thus, receive antitrust scrutiny. These models treat the antitrust enforcement agency and the court as a single entity. Firms predict that entity's enforcement behavior, and that prediction affects what mergers are proposed. The private parties' choices of which mergers to propose and the enforcement entity's choices of which proposed mergers to allow interact to determine which mergers are consummated. In each of these models, total surplus may be better served if antitrust agencies protect consumer surplus than if they protect total surplus.

Let M, R, and S denote the merger-induced changes in the profits of the merging parties, the profits of other suppliers, and level of consumer surplus, respectively. Although we use the mnemonic R for "rival," the other suppliers could also be suppliers of complementary goods and services. The associated change in total surplus is $W = M + R + S$.

Bruce Lyons argues that antitrust enforcement should account for self-selection by firms. Specifically, firms choose the most profitable of permissible mergers, knowing that some profitable mergers would be blocked by antitrust enforcement.[25] Figure 2a illustrates the logic of this model. For simplicity, assume that $R \equiv 0$ for all possible mergers. The four black dots in figure 2a represent mutually exclusive possible mergers or merger strategies (for the moment ignoring antitrust constraints), where each merger is characterized by its effects on the merging parties' profits, M, and consumer welfare, S. Given the assumption that $R = 0$, a merger's effect on total surplus is equal to $M + S$. Because rational firms will never propose mergers for which $M < 0$, the figure displays only profitable mergers. If antitrust enforces a consumer surplus standard, only mergers in green shaded region I would be allowed; if antitrust enforces a total surplus standard, then only mergers falling in either the green shaded regions I or orange shaded region II would be allowed.

Assume that all involved can perfectly predict the profit and consumer welfare consequences of any proposed merger, which also implies that the parties can perfectly predict which mergers would be allowed under any given antitrust standard. Profit-maximizing firms will choose the merger with the highest value of M (the most profitable merger) that will not be blocked by antitrust.[26] Hence, in figure 2a, under a consumer surplus standard the firms would propose merger a, while under a total surplus standard they would propose merger b, which is more profitable but harms consumers. All points on the line with a slope of -1 running through point a involve the same total surplus. As shown, a consumer surplus standard induces a higher level of total surplus than does a total surplus standard!

This logic illustrates that the standard adopted by antitrust enforcers is not the full story about what happens: even if in the end we want to maximize total surplus, in some circumstances antitrust authorities should challenge a different set of mergers than the set of all mergers that lower total surplus.

Examples, however, can tell us little about whether such circumstances hold in practice, or about whether the allowed set should be related to consumer surplus specifically. Figure 2b illustrates the case in which a consumer surplus standard would induce merger c, yielding lower total surplus than merger d, which would be induced by a total surplus standard. Which case, figure 2a or figure 2b, is more likely? Lyons considers conditions under which figure 2a is more likely than figure 2b, but at this stage we view that discussion as exploratory. Several factors affect which standard is preferable.

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25 BRUCE R. LYONS, COULD POLITICIANS BE MORE RIGHT THAN ECONOMISTS? A THEORY OF MERGER STANDARDS (Univ. of East Anglia Centre for Competition & Regulation Working Paper CCR 02-1, revised May 2002). For a similar analysis, *see* Sven-Olof Fridolfsson, Essays on Endogenous Merger Theory: A Consumer Surplus Defense in Merger Control (2001) (Ph.D. dissertation, Stockholm University).

26 A number of issues arise regarding the order in which various firms choose to propose what would be incompatible mergers. For a fully specified model that addresses these issues, *see* LYONS, *supra* note 25.
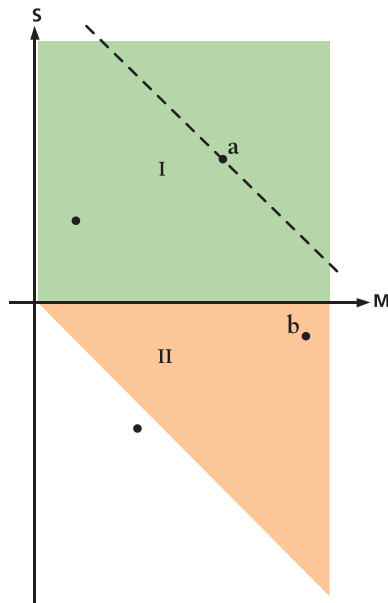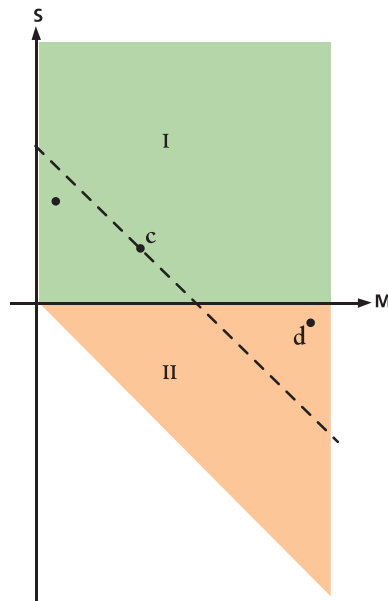
For example, one factor is whether efficiencies are inextricably linked to adverse competitive effects. In the extreme case, suppose there is no link and that all efficiencies can be achieved in a range of different ways, some of which have significant adverse competitive effects and others (e.g., fixed-fee licensing) not. In this setting, a consumer surplus standard would tend to push firms toward achieving desired efficiencies in ways that do not have significant adverse effects. There are, however, at least two reasons to expect efficiencies and competitive effects to be linked. First, if the merging firms do not significantly compete against one another, then they have a joint incentive to cooperate on achieving efficiencies even without a merger. Second, firms that are closer competitors might also have more similar operations and, thus, the potential for greater efficiencies. When efficiencies and competitive effects are linked, there may be a tradeoff between the realization of efficiencies and avoiding adverse competitive effects. The implications of this tradeoff for the choice of welfare standard remain to be explored.

A second factor is the nature of the efficiencies. For example, if all efficiencies take the form of fixed-cost savings and every merger has some adverse competitive effects, then a consumer surplus standard would block all mergers, while a total surplus standard would allow those that increase total surplus. Hence, in this setting, a total surplus standard would give rise to greater total surplus than would a consumer surplus standard.

Even if the model cannot show whether consumer surplus is likely to be the better standard, we take two lessons from it. First, as we have noted, it is important to consider the whole process. Second, Lyons' model suggests the intuition that (a) the outcome reflects both what firms push for and what antitrust pushes for, and (b) if we want to maximize gains in total surplus (northeasterly movement as shown in figure 2) and firms always push eastwards, there is something to be said for someone adding a northerly force.

We also observe that, although the Lyons model is described in terms of merger enforcement, the logic applies to other areas of antitrust as well. Firms often choose among alternative courses of conduct (e.g., the types of contracts they sign with distributors or the aggressiveness of their pricing policies) that affect profits and consumer welfare. Economically rational firms will choose profit-maximizing actions subject to the constraints imposed by antitrust enforcement.

David Besanko and Daniel Spulber offer a different model in which selection by the potentially merging parties affects the optimal welfare screen to apply in approving or blocking mergers.[27] In their model, time-consistency concerns can make it optimal for the legislature to impose something like a consumer surplus standard on the agencies and courts.

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27 D. Besanko & D.F. Spulber, *Contested Mergers and Equilibrium Antitrust Policy,* 9 J.L. ECON. & ORG. 1 (1993).
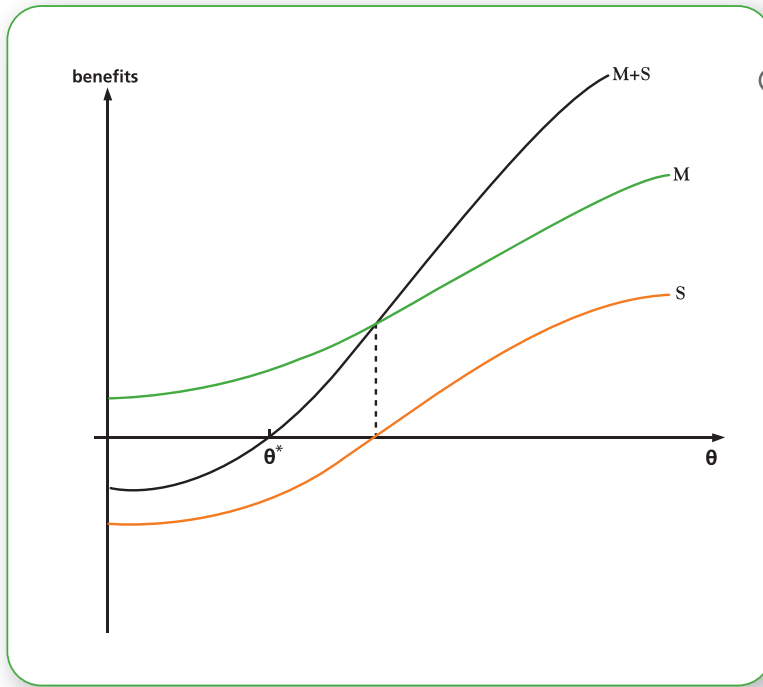
In Besanko and Spulber's model, unlike Lyons', private parties do not choose among mutually exclusive mergers to propose. Instead, private parties consider each member of a set of mergers and choose whether to propose it; there is no linkage across mergers. Thus, the two models, in different ways, simplify the complex reality that if firms A and B merge it may affect whether A/B and C are allowed to do so, and whether D and E are allowed to. For each possible merger in the Besanko and Spulber model, the parties have private information about a parameter, θ, that affects both the change in the merging parties' profits, $M(\theta)$, and the change in consumer surplus, $S(\theta)$. Again for simplicity, assume that $R \equiv 0$. Besanko and Spulber assume that both profits and consumer surplus are increasing in θ. This pattern would arise, for example, if the merger's principal effect were a reduction, measured by θ, in variable costs of production. Figure 3 illustrates this process.

Although the merging parties know the value of θ, antitrust enforcers know only the population distribution and have no other relevant merger-specific information. Thus, enforcers can pick only a single probability, ρ, with which to reject any proposed merger. The model realistically assumes that it is costly to propose a merger that is blocked. These costs include legal and administrative costs, as well as costs that arise from the disruption an enterprise suffers when its future structure is uncertain. Formally, if a proposed merger is rejected, the would-be merging firms are worse off by T than they would have been had they not proposed it. Therefore, given policy ρ, firms will propose a merger if and only if $\rho M(\theta) - (1 - \rho)T \geq 0$, or

$$M(\theta) \geq \frac{1-\rho}{\rho} T.$$

Hence, for any policy ρ, precisely those mergers with large enough values of θ will be proposed.

The optimal policy in this setting is to set ρ at the value that solves

$$M(\theta^*) = \frac{1-\rho}{\rho} T,$$

where θ^* is the value, illustrated in figure 3, such that $M(\theta) + S(\theta) \geq 0$ if and only if $\theta \geq \theta^*$. Label the solution as ρ^*.[28]

At this point, self-selection and time-consistency issues arise. If firms believed that any proposed merger would be blocked with probability ρ^*, then firms would propose exactly those mergers that improve welfare. Indeed, this is how ρ^* was calculated. If the agency recognizes this fact and seeks to maximize total surplus, then it should allow all proposed mergers. But if firms foresee what the agency will do, then they will propose inefficient mergers as well as efficient ones. In short, ρ^* is inconsistent with equilibrium behavior when the enforcer acts to maximize total surplus.

Now suppose that a legislative body directed the enforcer to approve mergers based on a consumer surplus standard. Observe that—because only mergers that yield positive profits to the merging parties are proposed—the level of consumer surplus from a merger is always lower than the level of total surplus. Moreover, mergers with low values of θ harm consumers. If enough mergers that increase total surplus are bad for consumers, enforcers might then reject all mergers conditional on knowing only that $\theta \geq \theta^*$. Although that outcome would generally be neither an equilibrium nor efficient, it does open the way to one that would be. In particular, if the expected value of consumer surplus is negative conditional on $\theta \geq \theta^*$, then there exists a weight, ω, such that the expected value of the weighted sum of total surplus and consumer surplus, $\omega(M + S) + (1 - \omega)S$ is equal to zero conditional on $\theta \geq \theta^*$. Hence, an agency with the objective of maximizing this particular weighted sum of total and consumer surplus will find it optimal to block ρ^* of those merger that it reviews even when it knows that only mergers for which $\theta \geq \theta^*$ are proposed. In other words, the threat to block ρ^* of the proposed mergers will be credible, and the optimal challenge probability is consistent with the private incentives and information of the active participants (in technical terms, this outcome is a perfect Bayesian equilibrium).

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28 Simple algebra yields $\rho^* = \frac{T}{T + M(\theta^*)}$.

This model thus confirms the idea that rules for challenging mergers should be evaluated in the context of the system as a whole. We are reluctant to take more than that from the model, however, for several reasons. First, the model assumes that the legislature can commit to a rule but the antitrust agency cannot—even though private parties have frequent observations of agency decisions and, thus, one would expect the agency to form a reputation. Second, the model does not ring true in terms of institutional behavior. The agencies do not view themselves as making merging more costly in order to induce firms to propose only the most profitable ones. Third, if the mechanism of enforcement policy is to raise the cost of merging, then allowing all proposed mergers subject to payment of a well-calibrated tax would be a better policy; the cost to firms would be the same, but the government would collect the revenues rather than simply have economic value dissipated through unproductive activities. Fourth, and finally, the model relies on the strong assumption that, across a set of potential mergers, the most profitable mergers also generate the greatest increase in consumer surplus. This pattern may hold for variable cost reductions, but one would expect the opposite pattern to hold for competitive effects: increased market power would raise profits and—due to deadweight loss—lower consumer surplus by more, thus reducing total surplus. In this setting, any form of a merger tax (including random rejection of merger proposals) would result in mergers less favorable to consumer and total surplus unless it deterred all mergers. Hence, optimal enforcement policy would either block all mergers or allow all mergers, depending on the average effects of a merger on total surplus.

> THIS MODEL THUS CONFIRMS THE IDEA THAT RULES FOR CHALLENGING MERGERS SHOULD BE EVALUATED IN THE CONTEXT OF THE SYSTEM AS A WHOLE.

We close by noting that, like the Lyons model, the Besanko and Spulber model and its broad lesson can be applied to antitrust enforcement generally. However, the concerns with the model that we have just expressed also extend to the broader setting.

C. THE AGENCIES AS AGENTS

Another strand of the literature examines the implications of lobbying. Suppose that exposure to the parties tends to tip the agencies toward a relatively sympathetic view of the parties' position. Consumers do not usually engage in lobbying or in other ways participate in the process.[29] Hence, building a pro-consumer bias (relative to a total surplus standard) into the agency's objective function may counteract the bias that can arise from asymmetric lobbying.

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29 If consumers are end-users (individuals), this assumption is natural because each consumer has relatively little at stake and may not be well informed. (One might ask whether consumer groups such as Consumers Union help to resolve this problem.) When direct buyers are not final consumers, intervention by direct buyers is more likely, but intervention by final consumers may be even less likely.

Neven and Röller offer a model that makes this point.[30] In their model, the merging parties and other business enterprises affected by the merger engage in lobbying, but consumers do not. The agency is influenced by lobbying but faces a threat of punishment if it fails to apply the statutorily mandated welfare standard. Specifically, the agency chooses the enforcement action (e.g., approving or challenging a merger) that maximizes $I + \alpha(B_M + B_R) \geq 0$, where I is the welfare standard the agency has been instructed to apply and B_M and B_R are lobbying expenditures by the merging parties and rivals, respectively. The fact that monitoring of the agency is imperfect tends to raise α, while limitations on lobbying (what Neven and Röller call transparency) reduce the effectiveness of bribes, tending to lower α.

The lobbying expenditures, B_M and B_R, are equal to the difference between what the relevant firms are willing to spend to have the merger approved in comparison with what they are willing to spend to have it blocked. The merging parties are willing to spend up to M to get the merger approved, while the rivals are willing to pay up to R.[31] Observe that B_R is negative if rivals are harmed by the proposed merger. Given these bidding (bribing) rules, a merger will be approved under a consumer surplus standard if and only if

$$S + \alpha(M + R) \geq 0,$$

and it will be approved under a total surplus standard if and only if

$$S + (1 + \alpha)(M + R) \geq 0.$$

Neven and Röller compare the resulting levels of total surplus when the agency is instructed to apply a consumer surplus standard and a total surplus standard. They find that neither standard dominates the other. Intuitively, instructing the agency to apply a consumer surplus standard compensates for the lack of consumer lobbying. Suppose, for example, that oversight of agency decision-making and private-lobbying activities leads to $\alpha = 1$, so that the agency maximizes the sum of consumer surplus and the bribes. Then, because firms are willing to bid up to the value of the merger, the agency will approve the merger if and only if $S + M + R \geq 0$, which maximizes total surplus. Thus, a consumer surplus standard leads to the first-best outcome in this setting.[32]

In other cases, however, a total surplus standard may yield superior performance. Clearly, if legislators or some other oversight body can perfectly monitor

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30 D.J. Neven & L.-H. Röller, *Consumer surplus vs. welfare standard in a political economy model of merger control,* 23 Int'l. J. Ind. Org. 829 (2005).

31 We are presenting a greatly simplified summary of the analysis. *See* Neven & Röller, *id.,* for details of the lobbying game and the equilibrium expenditure levels.

32 One may have to treat $\alpha = 1$ as a limiting case in their model: at several points, the paper presents results that implicitly or explicitly assume $\alpha < 1$.

and control the agency (i.e., if $\alpha = 0$), then a total surplus welfare standard will lead to the first-best outcome, while a consumer surplus standard would reject some efficiency-enhancing mergers for which $S < 0 < S + M + R$. For values of α between 0 and 1, both standards give rise to biases, and for specific parameters either can yield a superior decision.

As in Lyons' analysis, a central issue is whether one can say more than "anything is possible." A sympathetic view is that it is a different form of the same intuition: the merging parties and affected rivals push the outcome in their preferred directions, and if consumers pushed equally hard then the outcome would tend to be efficient. Because consumers seldom do so, the gap can be filled by weighting the agency's objective function more towards consumer interests and less towards those interests that are otherwise well represented in the forces that combine towards the overall outcome. More succinctly, non-consumer interests are represented and, hence, consumer interests should be too.

D. THE ROLE OF THE COURTS

Antitrust agencies do not make decisions in isolation: they are subject to judicial review. For instance, the Antitrust Division of the U.S. Department of Justice cannot block a merger or a business practice, but can only challenge it in federal district court.[33]

This distinction would not matter if courts gave the agency extreme deference, so that the decision to challenge would be tantamount to blocking. Perhaps at one time it was a reasonable approximation in some areas of antitrust that "the only consistency . . . is that the government always wins."[34] If that was ever the case, it clearly no longer is, either in the United States or in the European Community, as demonstrates by the *SunGard*, *Oracle*, *TetraLaval*, and *AirTours* decisions.[35] Thus the distinction does matter for how the agency should decide what to challenge. As a general principle, the agency and the court each should take into account that its decision only matters if the other condemns the prac-

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33 Judicial oversight is not complete. Litigation is costly for the parties, and these costs can be a source of agency bargaining power (although the converse also holds). Thus, given the high costs of delay faced by the partners in an unconsummated merger, an agency decision to challenge a merger often leads the parties to abandon the merger rather than defend it in court. There are, however, parties that prevail in litigation and are allowed to merge despite the agency's objections, so judicial oversight is meaningful.

34 United States v. Von's Grocery, 384 US 270, 301 (1966) (Stewart, J., dissenting).

35 United States v. SunGard Data Systems, Inc. and Comdisco, Inc., 172 F. Supp. 2d 172 (D.D.C. 2001); United States v. Oracle Corp., 331 F. Supp. 2d 1098 (N.D. Cal. 2004); Commission v. Tetra Laval BV, 2005 E.C.R. I-01113 (Grand Chamber); Airtours, PLC v. Commission, 2002 E.C.R. II-02585 (Ct. First Instance).

tice.[36] Consider, for instance, the extreme case in which the court always reaches the correct finding, the agency occasionally errs in its own assessment, and there are no litigation costs. In this case, the agency should challenge everything, ignoring its own estimates of the effects on consumer surplus, total surplus, or any other welfare measure—a challenge is costless and leads to the optimal decision. In the other direction, suppose the courts have less information than do the agencies, and the courts trust the agencies to pursue the right objective.[37] In this case, the courts should give the agencies extreme deference and, anticipating deference, the agencies should challenge cases if and only if they believe that the conduct under investigation would lower the relevant social welfare measure—a wholly deferential court plays no screening role. Once again, the decision calculus of an antitrust enforcer should account for that enforcer's role in the overall system.[38]

E. DOES A SYSTEM-LEVEL PERSPECTIVE SUPPORT A CONSUMER SURPLUS STANDARD?

The analyses discussed above show that, even if the overall objective of antitrust policy is to maximize total surplus, it may be optimal for enforcement agencies to use decision rules that apply a different standard. A central shortcoming of these analyses as a basis of policymaking is that each identifies possibilities but offers little guidance as to how often a consumer surplus standard is likely to lead to a higher level of total surplus than would a total surplus standard, or whether some third standard might be best. This is not a criticism of earlier authors; it simply means that much work remains to be done in this area. Clearly, the foundations for a total surplus rule, in the practical sense in which it would be actually used, are a good deal shakier than most economists have understood, but it is not yet time to abandon the edifice.

V. Bargaining and Remedies

The agencies often negotiate settlements with private parties and courts may impose remedies. What objective should agencies and courts pursue in negotiating and designing these conditions? A sensible candidate might be to turn a profitable, yet welfare-reducing, merger into a somewhat less profitable but welfare-

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36 For a discussion of multi-party decision making when each party has veto power, *see* Raaj Sah & Joseph Stiglitz, *The Architecture of Economic Systems: Hierarchies and Polyarchies*, 76 Am. Econ. Rev. 716, 716-727 (1986).

37 By less information, we mean that the agency's information in any given case is a sufficient statistic for the court's.

38 These issues could be explored further in the hierarchical decision framework we sketched above in our discussion of internal decision-making structure within an agency. Here, the court would be the relatively passive final decision maker, while the agency would play the role of collecting information and proposing a decision.

enhancing or at least welfare-neutral one.[39] Here, too, the interaction of different parties affects the optimal welfare standard.

In the context of merger remedies, Farrell considers a model that also expresses the general idea of countervailing influence.[40] He argues that merger remedies are best modeled not as imposed by the agency but as negotiated between the agency and the parties. Without explicitly modeling the negotiation process, he suggests that one can expect its outcome to reflect a degree of compromise between the parties' goal (maximize M) and the agency's goal, which might be set by high-level policy to involve maximizing some weighted sum $kM + S$. Whenever the parties have any bargaining power, it is optimal to set $k < 1$ as a counterweight; if $k = 1$, then M would be over-weighted relative to S in the resultant. Indeed, if the parties have enough bargaining power, it is entirely possible that total welfare is best served by making $k \leq 0$. Here $k = 0$ would correspond to making the agency pursue consumer welfare and ignore the parties' profits, while $k < 0$ would correspond to a consumer focus with an actual hostility to profits.

Discussions of objectives often assume that participants can accurately evaluate the effects of mergers and of potential remedies. A complementary perspective on merger remedies is informational. To illustrate, consider a proposed merger that will affect only the profits of the merging parties, M, and consumer surplus S. Suppose for simplicity that the court can perfectly gauge S. Although the court may have a good estimate of M, the merging firms are likely to have a better one. This informational asymmetry matters if, for instance, a court is applying a total-surplus standard, finds that $S < 0$, and is uncertain whether $M + S \geq 0$. Under a total surplus standard, the firms have an incentive to claim that M is large.[41]

One resolution takes advantage of the same market mechanism that, in the market for a competitively supplied good, ensures that consumers only consume the good if their consumption value exceeds the marginal cost of production. Namely, make the parties pay a price for their conduct that is equal to the social cost of that conduct. If those who gain must compensate those who lose, this compensation provides a market-like test of what must otherwise be imperfectly judged: that the merger's gain in efficiency outweighs the pre-remedy harm to consumers.

In this view, the point is not that there are benefits when compensation is actually paid. (That is, we are not suddenly concluding that distribution is

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39 Analysis of agency negotiations highlights the issue of whether the agency's objective is to maximize some welfare measure or see that it does not fall.

40 Joseph Farrell, *Negotiation and Merger Remedies: Some Problems, in* Merger Remedies in American and European Competition Law 95-105 (Francois Leveque & Howard Shelanski eds., 2003).

41 Recall that we are assuming the court knows the value of *S* and, thus, does not revise its projection of *S* in response to claims about the size of *M*.

important after all.) Rather, requiring actual payment might be the strongest available proof that compensation could be paid. Requiring actual compensation might also motivate firms ex ante to seek out socially desirable mergers, rather than less-efficient but more-profitable ones. Overall, then, compensation might promote efficiency even if, ex post, it is just a transfer or is even inefficient (that is, it costs the firms more to provide than it benefits consumers).

Another possibility is that an agency or court cannot perfectly predict the merger's effect on consumer welfare but can obtain a commitment from the merging parties (e.g., on price) that guarantees that S is positive. With such a commitment, the court can be sure that $W = M + S$ is positive if rational firms want to proceed with their merger.

Intuitively, such a requirement induces the active players—the merging firms—to take broad welfare effects into account. Graphically, the intuition is that requiring compensation makes the merging firms' indifference curves over M and S more like the social indifference curves. Without such a requirement, the firms' indifference curves are simply vertical lines, some of which are illustrated in orange in figure 4a. In contrast, the social indifference curves (drawn in green) are straight lines with slope minus one. Figure 4b illustrates how the firms' indifference curves become more like the social indifference curves when compensation is required—when consumers are harmed, the firms' profits net of compensation vary with the level of total surplus. Simple algebra demonstrates that, when compensation can be paid without transactions or agency costs, requiring compensation may raise total surplus and never lowers it.[42] The importance of this finding, however, is tempered by the reality that transfers are often costly, particularly if targeted at affected consumers, who may number many millions.

Intriguingly, it is not obvious why the compensation must be paid in a coin at all related to the competitive effects. For example, the merging firms might simply pay off buyers if there is no efficient remedy available to undo an increase in market power that is outweighed (in its effect on total surplus) by fixed-cost efficiencies. Although this is not conventional antitrust thinking, and (for instance) the U.S. Federal Communications Commission has been strongly criticized for allegedly seeking merger conditions that are not clearly aligned with competitive harms from the merger, compensation in a different coin is the heart of a market economy. A consumer can legally remove a DVD player from an electronics retailer only if he or she compensates the retailer. It would not be enough for the

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42 To see why, consider two possible mergers, 1 and 2, for which $M_1 + S_1 > M_2 + S_2$ and $M_1 > M_2$. Absent a compensation requirement, the merging parties would choose merger 1, which maximizes both profits and total surplus. Suppose, counterfactually, that the compensation system induced the merging parties to choose the less socially desirable merger: $M_1 + \min\{0, S_1\} < M_2 + \min\{0, S_2\}$. This condition can hold only if $S_1 < 0$. There are now two cases to consider. If $S_2 \geq 0$, then $M_2 + S_2 \geq M_2$, and $M_1 + S_1 > M_2 + S_2$ implies $M_1 + \min\{0, S_1\} = M_1 + S_1 > M_2 = M_2 + \min\{0, S_2\}$, a contradiction. If $S_2 < 0$, then $M_1 + \min\{0, S_1\} = M_1 + S_1$ and $M_2 + \min\{0, S_2\} = M_2 + S_2$. Hence it cannot be the case that $M_1 + S_1 > M_2 + S_2$ and $M_1 + \min\{0, S_1\} < M_2 + \min\{0, S_2\}$.
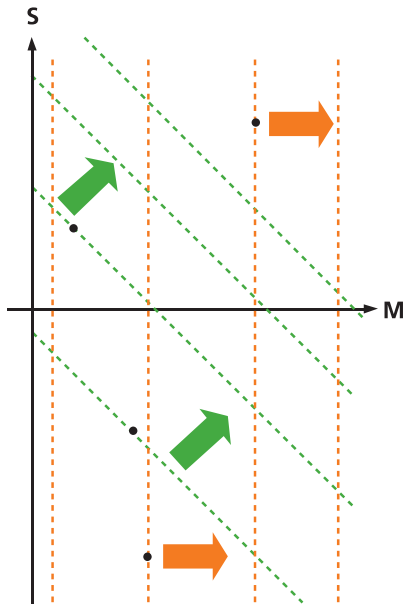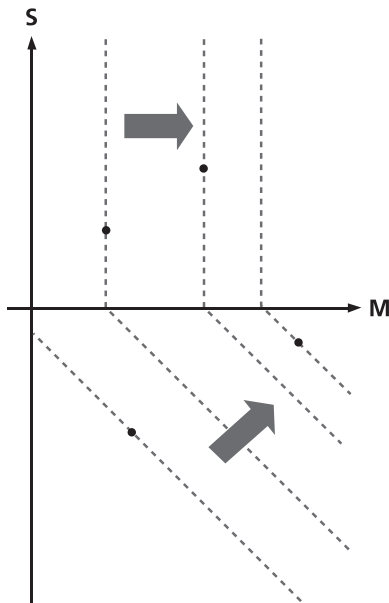
consumer to prove by expert testimony that he or she valued the player more than the retailer does. Nor is it regarded as suspect that he or she would compensate the retailer in a currency that bears no resemblance to the DVD player. This analogy raises interesting questions regarding why public policy treats a firm's obtaining the right to reduce competition so differently than a consumer's obtaining a good or service. One possibility is that it is harder for the agency to evaluate reliably—and harder for courts to judge whether the agency has evaluated responsibly—whether a distant remedy properly compensates consumers than whether a closely-tailored one does so. An important, related consideration is that allowing an agency to cut deals that involve unrelated conduct can permit the agency to engage in wide-ranging policy making without judicial review and contrary to the wishes of the legislature. For example, an agency might approve a merger conditional on the parties' agreeing to cease certain marketing practices that the agency finds distasteful but believes could not be successfully challenged in court.

VI. Conclusion

We have distinguished three layers of policy objective. At the highest level is the broad objective of governmental intervention in the economy and society. In the middle lies antitrust policy's objective within that overall policy framework. Lastly, there are the objectives of specific decision makers within the antitrust enforcement system.

We have argued that distributional concerns, however legitimate (or established) at the highest level of policy concern, should not be pursued through antitrust policy. In particular, arguments based on distributional concerns do not make a good case for the use of a consumer surplus standard in antitrust. However, analysis of the overall antitrust decision-making system suggests that, in some circumstances, a consumer surplus standard (or consumer surplus standard with a process component) can perform better than a total surplus standard, even if the ultimate goal is to maximize total surplus. Some of those arguments, unsatisfyingly, prove only possibilities. But several economic analyses have explored how outcomes may generally come closer to maximizing total surplus if someone, such as antitrust agencies, contributes a pro-consumer counterweight to firms' representation of their interests by choice of conduct and during lobbying, litigation, and bargaining. That argument, however, has not yet been thoroughly explored.

ANALYSIS OF THE OVERALL ANTITRUST DECISION-MAKING SYSTEM SUGGESTS THAT, IN SOME CIRCUMSTANCES, A CONSUMER SURPLUS STANDARD (OR CONSUMER SURPLUS STANDARD WITH A PROCESS COMPONENT) CAN PERFORM BETTER THAN A TOTAL SURPLUS STANDARD, EVEN IF THE ULTIMATE GOAL IS TO MAXIMIZE TOTAL SURPLUS.

Where does this leave us? We believe that there is a strong case for using total surplus, together with appropriate non-welfarist process criteria, as the overall objective of antitrust policy—and arguably even the process element earns its place through the view that competition promotes total surplus. The case for instructing the agencies and courts to use total surplus (with or without process elements) as their standard is weaker. But we are a long way from being able to conclude that a consumer surplus standard, presumably alongside an anticompetitive behavior prong, is better. At this point, we believe one should not too confidently advocate either a total surplus or a consumer surplus prosecutorial and judicial standard. One of us would nevertheless recommend the use of a total surplus standard at this stage of our knowledge; the other believes that the somewhat murky status quo should muddle along until we understand more. ▼