1-1-1993

Antitrust Policy and the Social Cost of Monopoly

Herbert Hovenkamp
University of Pennsylvania Carey Law School

Author ORCID Identifier:

Herbert Hovenkamp 0000-0002-4583-5162

Recommended Citation
78 Iowa L. Rev. 371 (1993)

Antitrust Policy and the Social Cost of Monopoly

*Herbert Hovenkamp**

The social cost of monopoly is equal to the loss produced by monopoly pricing and monopoly behavior, minus any social gains that monopoly produces. *Monopolization*—or the antitrust offense of creating or maintaining a monopoly by means of anticompetitive exclusionary practices—is a process rather than merely an outcome. We sometimes distinguish the two when we call the outcome "monopoly," and the process by which it is created by a term such as "rent seeking." For any antitrust policy concerned with minimizing the social cost of harmful activity, both the process and the outcome are properly counted as a part of the activity's social cost, and part of the reason that we wish to prevent it. This is usually true of the general economic theory of criminal behavior: the social cost of theft, for example, is not merely the money value of the stolen object—indeed, the theft itself is only a wealth transfer. The social cost must also include the collateral damage that the thief inflicts on society, as well as the costs of the elaborate mechanisms we use to deter theft.[1]

To be sure, some of the processes that create monopoly are efficient. For example, monopoly can be created by research and development. So we must have rules that distinguish harmful and beneficial practices that create monopoly. But this problem of definition or characterization is quite different from the question of whether losses caused by harmful exclusionary practices should be counted as part of monopoly's social costs.

As an opening premise, it is also important to keep in mind that the *policy* question of social cost always trades off relative gains and losses. There is no such thing as a condition where social costs are zero. Vigorous competition in the real world entails a certain amount of transaction costs that monopoly might avoid (such as the costs of making and interpreting competitive bids), and an even larger amount of duplication of productive assets or processes. So one could imagine a system with lower social costs; the policy question is merely whether one could actually create such a system, given the constraints that the world imposes on us. When we ask whether something is a social cost, we must always consider "relative to what?"

The earliest measures of the social cost of monopoly in the American economy took a kind of "public utility" approach to monopoly. They assumed monopoly was nothing more than a given equilibrium condition, giving no consideration to the method by which the monopoly was created or preserved, or the mechanisms by which it might eventually be destroyed. In such a static situation, the only social cost of monopoly is the "dead-

*Ben V. & Dorothy Willie Professor of Law, University of Iowa.

1. *See generally* Gary S. Becker, Crime and Punishment: An Economic Approach, 76 J. Pol. Econ. 169 (1968) (discussing methods of combating illegal behavior).

weight" loss that it produces—a loss caused principally by the fact that consumers make inefficient substitutions for products that would have been their second choices in competitive markets. Many have argued that this loss is relatively small.[2] Some have disagreed.[3]

But antitrust law's principal concern is not with such equilibrium monopolies, for they are generally the product of legislation. Further, even those that result from legislation can impose social costs that the traditional deadweight loss triangle fails to capture. For example, if the owner of a shopping mall bribes a city council into refusing to rezone nearby property at the request of a potential competitor, the social cost of the monopoly will be (1) the deadweight loss caused by the incumbent's monopoly output restriction and price increase; (2) at least part of the expenses paid by the shopping mall owner in influencing the city council; and (3) the investment in planning a competing development that the potential entrant will now lose as a result of the incumbent's bribery.

Antitrust law's concern with process rather than outcome is so apparent on the face of its statutory scheme as interpreted by the courts that the proposition is really not worth debating. The law of monopolization requires not only a monopoly position, but also the commission of one or more anticompetitive "exclusionary practices," thus signaling that the process by which monopoly is to be created tells us everything about its legality.[4] We condemn collusion, attempts and conspiracies to monopolize, tying arrangements, exclusive dealing, mergers, and other practices only because we believe that these tend to facilitate the creation of monopoly. We may sometimes be wrong about our underlying facts or even about the economic theories we employ, but the basic premise remains the same: the principal target of the antitrust laws is not static monopoly as such, but rather the manifold mechanisms by which monopoly is created or preserved. Indeed, there is no law of "no fault" monopoly.[5]

One possible explanation for the emphasis on process is that although the real concern of the antitrust laws is the final outcome, we need to deter, and deterrence is most effective if we hit things in the process of their creation. But the very fact that we fail to condemn the completed result *ipso facto* belies this claim. Antitrusters often say that their principal concern is monopoly, but that is not quite true. Their principal concern is monopoly

2. *See, e.g.*, Victor P. Goldberg, Welfare Loss and Monopoly: The Unmaking of an Estimate, 16 Econ. Inquiry 310 (1978); Arnold Harberger, Monopoly and Resource Allocation, 66 Am. Econ. Ass'n Paper & Proc. 77 (1953); David Schwartzman, The Burden of Monopoly, 68 J. Pol. Econ. 627 (1960).

3. *See generally* William S. Comanor & Robert H. Smiley, Monopoly and the Distribution of Wealth, 89 Q.J. Econ. 177 (1975) (discussing the impact of monopoly on the distribution of wealth); Robert E. Hall, The Relation Between Price and Marginal Cost in U.S. Industry, 96 J. Pol. Econ. 921 (1988) (discussing explanations for disparity between price and marginal cost).

4. *E.g.*, Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263 (2d Cir. 1979), *cert. denied*, 444 U.S. 1093 (1980); *see* 3 Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law 624-27 (Supp. 1992).

5. *See* 3 Phillip Areeda & Donald F. Turner, Antitrust Law 63-67 (1978) (discussing the law and proposing a restrictive no fault monopoly policy); Herbert Hovenkamp, Economics and Federal Antitrust Law 140-42 (1985) (rejecting no fault proposals).

created by certain means. Indeed, the costs of the means by which monopoly is created and preserved may dwarf the costs of any misallocation caused by the monopoly itself.

I elaborated on some of these points in an essay published in 1989.[6] That essay described the traditional "deadweight" loss of monopoly as imposing social costs denominated "WL1." It then noted the now well-established history of adding to WL1 the inefficient consequences of rent-seeking—or the resources that the intending monopolist spends inefficiently in acquiring its position, or that the successful monopolist spends inefficiently in maintaining it. These losses were called "WL2." At the margin, a monopolist will expend its entire anticipated monopoly gains in creating or preserving its monopoly position, and all of these resources could be spent anticompetitively, although they need not necessarily be spent in this way. To the extent these expenditures cost the monopolist but produce no offsetting benefits to consumers or other members of society, they must also be counted as part of the social cost of monopoly.[7]

I then argued that this analysis nevertheless understated the full social cost of monopoly, since it failed to account for losses that rent seeking imposes on third parties, mainly competitors or potential competitors. I called these losses "WL3," and argued that for purposes of antitrust policy, with its concern about monopoly process, they should be counted as part of the social cost of monopoly as well. This conclusion justifies giving competitors as well as consumers standing to enforce the antitrust laws, although damages in competitor lawsuits should generally be measured by lost investment rather than anticipated profits.[8]

This argument has been criticized from both the left (Markovits)[9] and the right (Page),[10] for either understating or overstating the "true" social cost of monopoly. The word "true" is put in quotations here, because it should really mean "relevant." Before antitrust policy makers can speak of the social cost of monopoly, they must have a conception of the kind of monopoly antitrust is concerned about, and also a conception about how the measure of social cost bears on antitrust policy.

At one extreme, to take Harberger's original view,[11] the relevance question is easily addressed. The social cost of monopoly is presumed to include only WL1, and this is judged to be so small that policy makers are

6. Herbert Hovenkamp, Antitrust's Protected Classes, 88 Mich. L. Rev. 1 (1989).

7. The literature developing this position includes, in chronological order: Gordon Tullock, The Welfare Costs of Tariffs, Monopolies, and Theft, 5 W. Econ. J. 224 (1967); Anne O. Krueger, The Political Economy of the Rent-Seeking Society, 64 Am. Econ. Rev. 291 (1974); Richard A. Posner, The Social Costs of Monopoly and Regulation, 83 J. Pol. Econ. 807 (1975). *See* Hovenkamp, supra note 6, at 15-16.

8. Hovenkamp, supra note 6, at 37-39.

9. Richard S. Markovits, Second-Best Theory and the Standard Analysis of Monopoly Rent Seeking: A Generalizable Critique, a "Sociological" Account, and Some Illustrative Stories, 78 Iowa L. Rev. 327 (1993).

10. William H. Page, Optimal Antitrust Penalties and Competitors' Injury, 88 Mich. L. Rev. 2151 (1990).

11. *See generally* Harberger, supra note 2, at 77.

wasting their time to go after monopoly. But if we revise our estimate of monopoly's social cost to take WL2 and perhaps WL3 losses into account, the case for intervention becomes stronger.

In one important sense the social cost question is only a background consideration in antitrust policy. Presumably, a perfectly efficient antitrust policy would minimize the total social losses caused by monopoly rent seeking of the kind that is reachable under the antitrust laws.[12] Antitrust would do this by minimizing the sum of (a) the costs to the consumer imposed by monopoly pricing and output reduction; (b) the costs to the monopolist of inefficient exclusionary practices; (c) the costs that inefficient exclusionary practices impose on third parties; and (d) the costs of operating the system that detects these things, adjudicates them, and punishes violators. Offsetting these costs would be the benefits caused by efficient forms of rent seeking.

We are probably centuries away from developing a system that explicitly considers these losses in a particular case and develops an optimal penalty. Rather, policy makers must create generalized rules that are reasonably calculated to identifying the harms most likely to result from a particular class of activities, and then derive penalties commensurate with the harms that are perceived. Further, in our existing system of mainly private enforcement we try to establish a link between the optimal penalty and the right to recovery; so the system simultaneously deters and compensates. To be sure, there are numerous conceptual inconsistencies between deterrence and compensation as policy goals. But it is hardly irrational to merge the two—that is, to try to establish a system that first calculates the appropriate level of monetary penalty with optimal deterrence as a goal; and then tries to distribute these monies in a fashion that compensates perceived victims. Indeed, if one subscribes to the theory that the optimal antitrust penalty is the value of the sum of losses to everyone except the defendant,[13] then the fit between deterrence and compensation could be pretty good.[14]

I. THE SOCIAL COST OF MONOPOLY AND THE OPTIMAL DETERRENCE MODEL

The optimal deterrence model is based on the premise that some practices that antitrust law identifies as violations are efficient, or they simultaneously produce gains and losses. An optimal antitrust policy must minimize the *net* losses from monopoly in the economy, taking into account

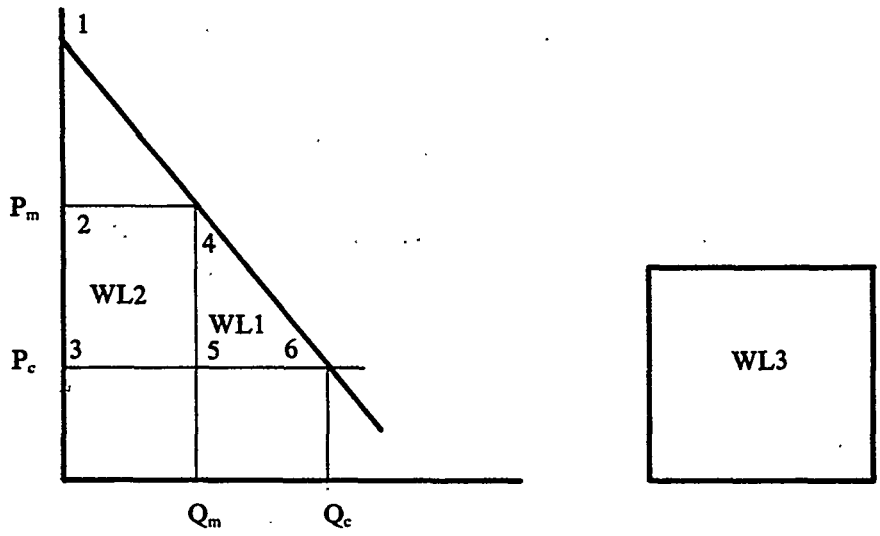
12. Certain kinds of rent seeking are not reachable under the antitrust laws because they involve constitutionally protected activity. For example, an interest group's petition to a legislative body for a particular regulatory regime is probably protected under the First Amendment even though the resulting regime is anticompetitive. *See* Areeda & Hovenkamp, supra note 4, at 13-90; 1 Areeda & Turner, supra note 5, at 36-57.

13. *See* William M. Landes, Optimal Sanctions for Antitrust Violations, 50 U. Chi. L. Rev. 652, 654-56 (1983).

14. It would be pretty good but not perfect. For example, the rationale of treble damages is that only one in three antitrust violations is detected. In that case, every third victim would receive triple compensation, while the other two victims would receive nothing for their violations, which were never detected.

the costs of operating the antitrust system itself.[15] The general rule is that the penalty should equal the net harm (losses minus benefits) to every person except the offender, with the penalty suitably adjusted to take the risk of detection into account.[16] For example, if a cartel costs its members $100 to operate, transfers wealth of $300 from consumers to the cartel members, and produces efficiency gains of X, then the optimal penalty would be $300, or the wealth transfer. If X is less than $100 the firms will not form the cartel. For example, if X is $60, then the value of the cartel would be $300 in overcharges plus $60 in efficiency gains less $100 in operating costs, or $260. The $300 penalty would make the cartel unprofitable. By contrast, if X is greater than $100, say $125, then the anticipated profitability of the cartel ($325) would exceed the $300 penalty and the cartel would form. These numbers would then have to be subjected to a multiplier to offset the probability that the cartel would not be detected and successfully prosecuted. For example, the damages would have to be trebled if the probability of detection were one in three.

The quarrel I stated with the optimal deterrence model in "Antitrust's Protected Classes"[17] was not with the model itself, but with the way that the model measures relevant costs. That essay contained the following figure:



The optimal deterrence model takes into account the losses denominated WL1 and WL2, but not those denominated WL3. For example, consider a situation something like the one adjudicated by the Supreme Court in *Allied*

---

15. *See* Herbert Hovenkamp, Economics and Federal Antitrust Law 379-407 (lawyers ed. 1985) (discussing the optimal deterrence model); *see generally* Landes, supra note 13, at 652 (discussing the optimal deterrence model).

16. *See* Landes, supra note 13, at 654-56.

17. Herbert Hovenkamp, Antitrust's Protected Classes, 88 Mich. L. Rev. 1 (1989).

Tube & Conduit Corp. v. Indian Head, Inc.[18] A cartel of firms making steel electric conduit knows that a new prospective rival has been researching and developing an alternative plastic conduit that is cheaper, lighter, and less prone to cause electrical shorts. In order to protect their monopoly position from this threatening new entry they organize a method to manipulate a meeting of people who set industry standards, which in turn are enacted into local building codes. The standards they have promulgated condemn the use of plastic conduit.

In this case WL1 losses are clear enough, although the market is dynamic rather than static. Consumers lose whatever increased value would have accrued to them in a situation where steel and plastic conduit were placed on the market as alternative competitive products. WL2 losses are quite easily measured: they are the costs of organizing the cartel and manipulating the meeting that set standards. But WL3 losses must also be taken into account. These are the losses that accrue to Indian Head, the manufacturer of the plastic conduit, because a research effort of great potential value has now become worthless. Indian Head spent many dollars researching and developing a product that it reasonably predicted consumers would want, but which now cannot legally be sold. When these losses are taken into account and denominated Y, then the optimal penalty in the illustration should be $300 plus Y, and not merely $300. If the Y losses are, say, $75, then the conduct will be unprofitable unless efficiency gains exceed $175.[19]

WL3 losses are an externality—that is, a cost that the strategizing firms and its customers do not ordinarily take into account. As a result, WL3 losses do not show up in the functions that show demand conditions in the market or the costs to the strategizing firm. The size of WL3 losses in a particular case could range from very small to extremely large. For example, certain forms of strategic entry deterrence may be directed at potential entrants whose entire investment consists in a quick look at a market to determine whether entry would be profitable. In that case, WL3 losses can be considered small. Other firms, such as Indian Head, may suffer the loss of a large investment whose value exceeds that of all consumer losses or net gains to the monopolist or cartel. In general, the larger the competitor's investment in assets that cannot easily be redeployed, the larger the WL3 losses that result from an inefficient exclusionary practice that makes those assets worthless (or less valuable) in their current market.

II. MARKOVITS

Markovits's general argument is not directed specifically at me but rather at the dominant way of thinking about rent seeking and the injuries that antitrust law recognizes. He acknowledges and agrees with most of my own critiques of the optimal deterrence model but believes that I do not go

18. 486 U.S. 492 (1988).

19. At that point, the penalty would be $375 and the costs of organizing the cartel $100, for a total of $475. Before the cartel could profitably pay this penalty the gains would have to amount to a wealth transfer of $300, plus efficiency gains of $175.

nearly far enough. Further, he regards my position as sufficiently close to the mainstream that I can be used as a foil for his objections. More specifically, he approves of my recognition of "WL3" losses as a real social cost and an appropriate concern of antitrust policy, but argues that several other externalities must be taken into account as well.[20]

Markovits's claim is both theoretically correct and challenging: my recognition of WL3 losses does not go far enough, for it does not take into account other kinds of externalities, or second-best problems, that result from monopolizing activities. The relevant second-best problems are, among other things, (1) that under imperfect competition firms will overinvest in both the quality and the variety of the products they make and of the distribution mechanisms they use;[21] and (2) that monopoly pricing and output reduction causes losses that result not merely because goods are produced in the wrong proportions, but also distortions in the profitability of using other economic resources;[22] and (3) that one firm's monopoly may cause firms in other markets to overproduce or underproduce their products, or to fail to develop relatively cheaper production processes, thus causing a research misallocation.[23] In sum, if an economy contains more than one imperfectly competitive market there will be "feedback" relationships,[24] such that we can have little confidence that correction of monopoly in the market under examination will result in increased allocative efficiency in the economy as a whole.

I do not take issue with the theory that second-best problems are pervasive, vexing, and that ultimately they reduce our level of confidence in the efficacy of antitrust policy—or, for that matter, of any economic policy. I admit to being one of those who has acknowledged the existence and pervasiveness of second-best problems in the economy, but then has thrown up his hands in despair of coming up with constructive solutions.[25] I should note that I am traveling in a large company. A wide variety of economists, including many that are ideologically a long way from the Chicago School, have reached the same conclusion when they speak of public policy.[26] The basic problem, quite simply, is that we have not come close to developing the tools for dealing with such problems in our current system of adjudicating antitrust disputes, with its dispute-oriented, jury-based institutional commitment. General equilibrium analysis—or the analysis of how all the markets in the economy interact with one another—remains a rarefied, highly theoretical set of abstractions when the relevant question is regulation of a particular antitrust market.

---

20. Markovits, supra note 9, at 336.

21. Id. at 336-37.

22. Id. at 339-40 n.18.

23. Id.

24. Id. at 340 n.19.

25. Herbert Hovenkamp, supra note 5, at 36-39.

26. *See* Frederic M. Scherer & D. David Ross, Industrial Market Structure and Economic Performance 33-38 (3d ed. 1990) (summarizing literature regarding second-best problems in the economy).

Nevertheless, one can produce two generalizations, although they may have policy effects that cancel one another out. The first is that the traditional welfare analysis that examines the social cost of monopoly by looking discretely at single markets very likely underestimates the total social cost of monopoly when "feedback" effects of the kind Markovits describes are taken into account. But the second generalization is that we can have relatively less confidence that any efforts we take to eliminate a monopoly in the market under examination will increase the allocative efficiency of the economy as a whole. Indeed, we may spend numerous resources in getting rid of a monopoly in market A only to find out (in some world where better information is available) that the overall effect of eliminating market A's monopoly is to make the economy as a whole worse off.

As a general proposition, those who make antitrust policy are consumers, not creators, of economic theory. Further, as a general matter we are quite stodgy about adopting new theory. That is to say, the economics applied in antitrust decisionmaking is quite conventional, applied economics when viewed from the perspective of the professional economist. The economics literature as a whole is more technical, more venturesome and speculative, much more stylized, and at the margins much more controversial than most of the economics that is applied by the antitrust policy maker.[27]

Indeed, I believe that one of the most serious consequences of the Chicago School revolution in antitrust economics is that, notwithstanding many important contributions, some of the more extreme and controversial conclusions were accepted at face value too quickly by judges and others making antitrust policy. As evidence of this one need only look at the very substantial rewrite given to entry barriers in the 1992 Merger Guidelines over the 1984 Merger Guidelines,[28] or the numerous judicial decisions approving mergers in highly concentrated markets on the basis of presumptions about ease of entry or sophistication of customers.[29]

For these reasons I find my own proposal respecting antitrust policy and the social cost of monopoly to be acceptable, while Professor Markovits's lies in the area of proposals that need further debate, a certain amount of empirical testing, and perhaps most importantly, an escape from the realm of theoretical economics into the realm of applied economics. *Modeling* second-best is hard enough. Given the current status of our

27. For example, consider the literature on game theory that now forms the center of industrial organization analysis in economics departments but is barely beginning to make inroads in applied antitrust economics. Further, the game theory being applied in antitrust is simple and quite uncontroversial. *See* Drew Fudenburg & Jean Tirole, Noncooperative Game Theory for Industrial Organization: An Introduction and Overview, *in* 1 Handbook of Industrial Organization 259 (Richard Schmalensee & Robert D. Willig eds., 1989) (providing an overview of the aspects of game theory commonly used by industrial organization economists).

28. *See* Areeda & Hovenkamp, supra note 4, app. A at 1134-38.

29. *E.g.*, United States v. Baker Hughes, Inc., 908 F.2d 981, 986-89 (D.C. Cir. 1990); United States v. Waste Management, Inc., 743 F.2d 976, 980, 983-84 (2d Cir. 1984); *see generally* Herbert Hovenkamp, Mergers and Buyers, 77 Va. L. Rev. 1369 (1991).

analytic and empirical tools, and the institutional limits on judicial factfinding, carrying out the process backward (from facts to conclusions) is simply not possible at present. In applying second-best tools in the courtroom one must begin with information and then ask questions such as "What is the impact of this violation in adjacent (or not so adjacent) markets?" or perhaps more to the point, "What will be the impact of the plaintiff's requested relief in these other markets?" But our courts have not yet reached the point where they can do partial equilibrium analyses of the market at hand with anything approaching the requisite sophistication. Extremely simple questions about market definition,[30] or determining which costs are variable and which are fixed, continue to plague them.[31] Indeed, as conceptually simple a task as measuring the demand curve with sufficient confidence that we can compute the monopoly overcharge and the way it is then passed on into subsequent markets has so vexed courts that it forms the basis of the Supreme Court's "indirect purchaser" rules that generally removes courts' obligations to make such computations.[32] Institutions that are incapable of measuring marginal cost or computing elasticities of demand or supply are not well suited to taking into account the factors that Markovits would have them consider in antitrust cases, their theoretical relevance notwithstanding.

By contrast, my proposal that the losses denominated WL3 should be calculated into the social cost of monopoly is absolutely conventional by the standards of both antitrust traditions and neoclassical economics. As for the former, it largely confirms what has always been the case in the face of some Chicago School arguments that it should be changed: competitors should have standing to bring antitrust actions under certain conditions.[33] To the extent I deviate from the existing case law I would narrow the permissible damage claims in such cases to lost investment rather than lost anticipated profit.[34] But that rule would make damages actions in such cases easier and more determinate than the current rule that permits lost anticipated future problems to be "measured" on the basis of sheer speculation. As for the economics, there is absolutely no question that WL3 losses are private costs and that they are not offset; so under absolutely conventional theory they are social costs of *some* kind. The only remaining question is whether they are social costs of monopoly of the kind that should concern antitrust policy. WL3 losses are also easier to identify than WL2 losses, and almost always easier to determine than WL1 losses.[35] They produce identifiable victims whose losses are relatively easily quantified, and often occur at an early stage in the process by which monopoly is formed.

---

30. Areeda & Hovenkamp, supra note 4, at 513-606.

31. Id. at 664-67, 700-16.

32. Illinois Brick Co. v. Illinois, 431 U.S. 720, 741-47 (1977); *see also* Areeda & Hovenkamp, supra note 4, at 413-29.

33. *See* Areeda & Hovenkamp, supra note 4, at 378-505; 2 Areeda & Turner, supra note 5, at 1-266 (overviewing the basic issues in antitrust remedies); Hovenkamp, supra note 5, at 356-66 (discussing who should enforce antitrust laws and rules of standing).

34. Hovenkamp, supra note 6, at 38-40.

35. Even in a cartel case we measure only the *overcharge*, not the deadweight loss.

Markovits also finds it surprising that I view lost investment as a social cost of monopoly, given my presumed position that "profitable product-innovations or production-cost-saving moves would not be called into question by their imposing losses on their rivals even if those losses led the relevant rivals to abandon their properties."[36] He presumes correctly, but my position is easily explained. Every policy alternative imposes social costs, but they differ from one regime to the next; so we must make *ex ante* predictions about the comparative advantage of alternative regimes. In this case, *ex ante*, the *competitive* innovation is calculated to provide the superior solution, while the anticompetitive action is calculated to provide the inferior one. For example, consider the situation of two firms racing to invent and patent a usable plastic conduit. Once again, a research joint venture might be a superior way to go about developing such a project, for it would entail one set of research expenditures rather than two. But our economy and the state of our legal policy is such that not every efficiency enhancing joint venture will be formed. Assume that the two firms are engaged in the highly inefficient activity of simultaneously and separately researching and developing the identical product. The winner gets a patent and seventeen-year monopoly, which will outlast the product's life; the loser gets nothing and its investment is lost. Is this loss a social cost of monopoly that the antitrust laws should take into account?

Considering once again that social costs are relative—they must be measured by reference to some alternative—the answer seems clear. Our patent policies are designed to award monopolies under precisely these circumstances. Those policies themselves impose social costs. One of these is the monopoly prices and output reductions that successful patent monopolies produce. Another is the lost investment resources spent by the losers in the patent race. Our patent policy is based on the premise that, these costs notwithstanding, the gains from the created incentives to research and development will generally outweigh them. In a perfect world perhaps every person in a position to gain from the research and development of a particular product could be engaged in a single joint venture, could share the costs in proportion to gains, and the patent laws would be unnecessary. No potential free riders would remain. But that is not the world we live in.

However, suppose that one of the firms wins the research race, not by doing better research, but rather by sabotaging the research of the rival, or perhaps by using ill-founded litigation strategically. The differences between competitive behavior and noncompetitive behavior under such circumstances is that the competitive behavior (1) rewards the person who gets there first (and a product innovated today produces more social value than a product innovated tomorrow, assuming the market is ready to accommodate it); and (2) the competitive behavior permits the *market* (or at least, the market as qualified by our patent laws) to determine whether there is room for both products or only one. By contrast, the anticompetitive behavior, such as sabotaging another's research, is calculated *ex ante* to yield the inferior solution. Normally, the person winning the patent race

36. Markovits, supra note 9, at 24 and text at note 38.

does not need to sabotage the person who is losing; it works the other way around. So considered *ex ante*, the monopoly created by the person who sabotage's his competitors research is not the kind of monopoly whose costs are offset by the increased incentive to research. Quite to the contrary. For policy reasons, then, we count this particular loss as a qualifying social cost that can raise antitrust concerns.

But one does not need to look at markets that are the subject of government intervention, such as the market for patents, in order to come up with analogous situations. Completely unregulated markets can produce a duplication of expenditures that might be regarded as a qualifying social cost when they are used for one purpose, but not when they are used for another. Consider the market for complex, high-priced, and perhaps technically sophisticated structures. The developer who wishes to have such a structure may take competitive bids from intending builders. Looking *ex ante*, the cost of making a bid on a complicated project can be high—perhaps two percent or more of the product's final cost. Suppose that 5 bidders enter the contest, and the cost of making a bid is $100,000, but only one of the bidders can win. Further, the cost of making the bid is presumably sunk,[37] in that the bid itself has no value to the loser. If all firms behave competitively, the process is going to yield a deadweight loss of $500,000 as compared with a process under which a single firm were asked to build the project and did so at the competitive price.[38] The process is indeed wasteful of resources, but looking *ex ante*, reasonable minds could quite easily conclude on the basis of the information that they had that the bidding process is more efficient than any alternative, which would produce other kinds of inefficiencies. We would not expect that the four losers would have a "damages action" against either the winning bidder or the developer.

Suppose, however, that four of the bidders had formed a cartel. When the fifth bidder refused to join in, the four undertook some exclusionary practice designed to make the fifth firm's bid unacceptable.[39] In this case I would permit an antitrust damages action by the fifth firm,[40] and I would base damages on the fifth firm's lost investment—in this case, the $100,000 that was invested in the bid that we presume would have been won, given the price collusion by the other firms, but for the cartel's exclusionary practice.

Once again, any way one looks at the bidding process it produces social costs—but in this case the market selects an alternative calculated to

37. A sunk cost is an investment that a firm will not be able to recover in the event of failure.

38. Bidding costs would not have to be incurred if a builder simply built the project on a cost-plus basis.

39. For example, the four might bribe a government official to refuse the fifth firm a license, or in the case of a public developer, to reject the fifth firm's bid. They might also include litigation against the fifth firm, bribery of one or more of the fifth firm's employees to upset the bid, or agreements with the fifth firm's suppliers to deny the fifth firm access to an essential input.

40. If the project were actually built at the higher bid price, the customer would also have a damage action for the monopoly overcharge.

minimize such costs. The cartel of the four bidders effectively changed the lost investment of the fifth bidder from an acceptable social cost in the case of competition, to an unacceptable one in the case of the collusion plus the anticompetitive exclusionary practice.

III. PAGE

Professor William H. Page's critique of my picture of the social cost of monopoly is very different from that of Professor Markovits. Page argues that I *overstate* the social cost of monopoly, and in the process invite numerous nonmeritorious or at least inefficient lawsuits by competitors.[41]

Page apparently agrees with my conclusion that there is some value in competitor lawsuits, and that Congress intended to give competitors such lawsuits.[42] But he dislikes my identification of certain harms to consumers as a welfare loss, or as a properly considered part of the social cost of monopoly.[43] In part, my answer to Markovits's objections also responds to some of Page's.

Professor Page's underlying objection seems to be that antitrust rules tend to be overinclusive and competitors often bring nonmeritorious suits and may perhaps have the wrong set of incentives. For example, competitors are injured by a competitors' cost reduction, which antitrust law should not condemn. I agree with all of these propositions. My point is hardly that every private injury that accrues to competitors ought to be compensable; most should not be. Rather, the point is that there is a class of harms to competitors that should be compensable when they occur, and that one can usefully generalize about this class of harms as part of the social costs of monopolizing conduct. The problem of distinguishing those harms to competitors that fall into this class from those that do not may in fact be substantial, but that is a totally different argument.

One of Page's objections to my identification of WL3 losses is that in order to diagram them I have to resort to a black box of unspecified size that sits in isolation from the demand and cost functions of the market at issue.[44] I find this argument unpersuasive for the simple reason that WL3 losses are an externality.

The standard figure showing the social cost of monopoly identifies that cost entirely in terms of the market demand curve and the cost functions of the monopolist.[45] The traditional deadweight loss (WL1) represents the consequences of the monopolist's equation of its marginal cost and marginal revenue, and the attendant consumer loss. The size of

41. Page, supra note 10, at 2151.

42. *See* Hovenkamp, supra note 6, at 27-31 (discussing the significance of congressional concern about monopoly prices); Page, supra note 10, at 2152-53 (discussing Hovenkamp's argument that Congress intended to protect competitors and his emphasis on the harm to competitors).

43. Page, supra note 10, at 2151.

44. Page, supra note 10, at 2154; *see also* supra Fig. 1, and text accompanying note 17.

45. If a competitive fringe firm is present, the competitor's costs will be relevant to the monopolist's price and output decisions, but the monopolist will still equate its own cost and marginal revenue.

secondary, or WL2, losses is driven entirely by the anticipated wealth transfer or profitability associated with the monopoly. A monopolist will spend any amount up to but not exceeding the anticipated value of its monopoly in creating or preserving it, and at the margin may receive only a competitive return. Ultimately, however, the size of WL2 losses is limited by the anticipated wealth transfer, and the wealth transfer is a function of both the location of the demand curve and the cost curves of the monopolizing firm.

Measured by these rules, the social cost of monopoly that I have denominated WL3 is an externality, or a cost that does not show up in the monopolist's (and its consumers') calculation of its profit-maximizing price and output. Under certain circumstances perhaps that externality could be internalized. This might happen if there were perfect information and no transaction costs. For example, in *Allied Tube*[46] perhaps the steel conduit makers could have purchased the plastic conduit makers' technology and patents, added plastic conduit to their list of monopolized products, and set new prices that maximized their profits from all sales. Alternatively, Allied and Indian Head could merge and do the same thing. This is simply another way of observing that when the Coase Theorem speaks of transactions as being "efficient" it really means joint-maximizing.[47] Transactions among competitors that create cartels are completely predictable under the Coase Theorem, and they are joint-maximizing. However, they may be quite inefficient if one looks beyond the immediate market covering the asset or entitlement that is being transferred. The transaction is likely to occur because the value that the plastic conduit technology has in Allied's hands is likely to be greater than it would be in the hands of Indian Head. If Allied produces the two, it will maximize profits as a monopoly of a differentiated product, or perhaps two different products. By contrast, if Allied produces steel conduit and Indian Head produces plastic conduit, they will be competitors in a product-differentiated market.[48]

But for numerous reasons this transaction between competitors is not likely to happen. First, the monopolist and the competitor with new technology very likely stand in a bilateral monopoly relationship and bargaining will not work very well. Second, they are competitors and the laws against collusion may limit their ability to negotiate over such transfers. Third, any acquisition of productive assets would very likely be an illegal merger. So looking at the problem from Allied's point of view, there are three possible situations: (1) *worst*: Allied continues to make steel conduit and Indian Head makes plastic conduit in competition with Allied; (2) *better*: Allied removes plastic conduit from the market and continues to make steel conduit as a monopolist; (3) *best*: Allied acquires Indian Head's productive assets and makes both steel and plastic conduit in the profit-maximizing combination. Alternative three here is considered "best" not because it is socially more efficient, but because it is profit-maximizing for

46. Allied Tube & Conduit Corp. v. Indian Head, Inc., 486 U.S. 492 (1988); *see also* supra notes 17-18 and accompanying text for discussion of *Allied*.

47. *See generally* R.H. Coase, The Problem of Social Cost, 3 J.L. & Econ. 1 (1960).

48. Assuming, of course, that they do not eventually find a way to collude.

Allied, which would continue to be a monopolist, but in a two-product market. To the extent that alternative (3) is not available, Allied can be expected to pursue alternative (2), provided it can do so without getting caught.

Once we admit that the transaction between Allied and Indian Head is not going to occur, we have met Page's initial objection. The market has an externality, and not all relevant costs are internalized by the firm and its consumers. By contrast, WL1 and WL2 losses represent costs that are internalized, to one degree or another, by either the firm or its customers. Are the costs that are not internalized a properly counted social cost of the kind of monopoly that concerns antitrust, or aren't they?

I say yes, for numerous reasons. First, costs that are not fully internalized are probably the principal source of inefficiency in our economy, and they form the most fundamental rationale for the existence of a legal system.[49] Indeed, with respect to the great majority of harmful activities, the costs that are *not* internalized make the best case for legal intervention.

Does the fact that WL3 losses are an externality entail that they are not conceptually or causally related to our model for the deterrence of monopoly? My own answer is that if the externalities are present and subject to conventional and relatively uncontroversial measurement, then any system intended to minimize the social cost of monopoly must take them into account. In that case, the externalities are internalized, *but it is the antitrust laws themselves that force them to be internalized.* That is to say, the presence of efficient competitor lawsuits should force firms to take into account inefficient losses imposed on competitors that are a consequence of their antitrust violations.

Suppose that Allied's monopoly in steel conduit produces the following values: (a) a $300 wealth transfer from consumers and corresponding enrichment of Allied; (b) costs of administering or preserving the monopoly, including costs of destroying Indian Head's market position in plastic conduit, of $50; (c) efficiency gains from whatever source of X; and (d) resources resulting from lost research and development by Indian Head of $100. The optimal deterrence model as Page defends it would set the penalty at $300, which would make the (b) costs worth spending anytime X

49. As Ronald Coase himself realizes:

> If we move from a regime of zero transaction costs to one of positive transaction costs, what becomes immediately clear is the crucial importance of the legal system in this new world.... While we can imagine in the hypothetical world of zero transaction costs that the parties to an exchange would negotiate to change any provision of the law which prevents them from taking whatever steps are required to increase the value of production, in the real world of positive transaction costs, such a procedure would be extremely costly, and would make unprofitable, even where it was allowed, a great deal of such contracting around the law. Because of this, the rights which individuals possess, with their duties and privileges, will be to a large extent, what the law determines.

R.H. Coase, The Institutional Structure of Production 9 (Alfred Nobel Memorial Prize Lecture, 1991).

exceeded $50. The (d) costs would not show up in the optimal deterrence model, because they are a cost that has not been internalized.

My own conclusion is that the optimal penalty should be $400—$300 to offset consumer losses (a) and $100 to offset competitor losses (d). The monopoly would not be worth the trouble unless efficiency gains exceeded $150.

Once again we must look from the *ex ante* position. In setting upon a program to develop plastic conduit, Indian Head had to calculate the anticipated costs of research and production, and balance these against anticipated revenues. If it were in competition with another firm, it might also have to calculate the probability that the rival, rather than itself, would be the first to develop the product; in that case the investment would be lost. In an efficient market it would not have to calculate as part of its costs (or as a reduction in its revenues) the probability that Allied would engage in anticompetitive activity to remove the new product from the market. Both kinds of losses of research investment are a kind of social cost; but antitrust is properly concerned only with the second one, the loss that results from the inefficient exclusionary practice.

When I break a window in order to steal a radio, the social cost of the crime is (a) my lost time and other expenses in carrying out the crime; and (b) the broken window. The forcible removal of the radio is itself a mere wealth transfer. We have very little difficulty in such a case in concluding that the broken window ought to be included in the computation of the penalty. The optimal penalty would be something greater than the amount necessary to compensate the victim for her loss, which in this case would be the loss of the radio plus the window.[50] In a perfect market perhaps I could have bargained with the victim, and she would have set the radio out on the back steps. I could then take it without breaking the window, and we would both be better off. The setting of the optimal penalty to include the broken window is predicated on the observation that this kind of bargaining is highly unlikely to occur, and that if it does not occur the burglar will not internalize its costs.

The principal difference between the burglar illustration and the antitrust violation is that in the former the radio and the window belong to the same person. In the antitrust setting the radio belongs to consumers and the window belongs to competitors.

Page's other general objection seems to be that the presence of rivals is already accounted for in the market that the dominant firm faces, and to that end the losses of rivals are already reflected in the losses denominated WL1 or WL2. As Page's diagrams show,[51] the *output* of fringe firms—even of fringe firms who have higher costs than the dominant firm—must be considered by the dominant firm when it settles upon its profit-maximizing rate of output. Any fringe output effectively gives the dominant firm a

50. For example, precaution costs are computed. The victim will spend $40 in installing a burglar alarm, and the thief may then spend another $40 in equipment for evading or disabling the alarm. *See generally* Becker, supra note 1, at 169; David J. Pyle, The Economics of Crime and Law Enforcement 29-88 (1983).

51. Page, supra note 10, at 2155, 2159.

residual demand curve to the left of the market demand curve. The result is that the dominant firm maximizes its profits at a lower price than it would if the fringe firms were absent. To the extent that the presence of fringe firms is already taken into account by the dominant firm, they are already included in the optimal deterrence model's calculation of the penalty. For example, if the presence of the fringe reduces the dominant firm's monopoly profits from $300 to $250, then the penalty may be reduced accordingly and the result can still be considered efficient.

But my observation respecting WL3 losses does not concern the output of fringe firms, but rather the loss of investments that would have been profitable in a competitive market—or, indeed, in a market in which the two firms could have bargained their way to the joint-maximizing solution. These investments are now rendered worthless as a result of a harmful exclusionary practice. Indeed, one of my conclusions—and one which would greatly reduce damage awards in many competitor suits—is that the proper measure of damages is lost *investment*, not lost profits.[52] What Indian Head lost was the dollars it invested in developing a technology, a manufacturing process, and a new product (plastic conduit) that has been removed from the market by an anticompetitive act. Indian Head's lost investment does not show up in any cost or demand function that the strategizing firm must take into account.

Page characterizes the loss of fixed cost investments as "bygones," and "not an additional cost of the monopolistic practice."[53] But that statement strikes me as both inaccurate and irrelevant to the policy question at hand. It is inaccurate only if one looks *ex post* rather than *ex ante*. The relevant question for legal policy is how to deter anticompetitive exclusionary practices and how to encourage the optimal amount of research and development. If Allied's damages do not take Indian Head's losses into account, then a relatively small efficiency gain—sufficient to offset the costs of organizing the cartel—becomes sufficient to change the anticipated value of Indian Head's investment project from positive to negative. *That* is the principal reason that it is appropriate to speak of Indian Head's lost investment as a qualifying social cost of Allied's monopolizing conduct.

52. Hovenkamp, supra note 6, at 38-40.

53. Page, supra note 10, at 2157.