University of Chicago Law School

Chicago Unbound

Journal Articles

Faculty Scholarship

1982

Auctions and Sunk Costs in Tender Offers

Frank H. Easterbrook

Daniel R. Fischel

Follow this and additional works at: https://chicagounbound.uchicago.edu/journal_articles

Part of the [Law Commons](#)

Recommended Citation

Frank H. Easterbrook & Daniel R. Fischel, "Auctions and Sunk Costs in Tender Offers," 35 Stanford Law Review 1 (1982).

This Article is brought to you for free and open access by the Faculty Scholarship at Chicago Unbound. It has been accepted for inclusion in Journal Articles by an authorized administrator of Chicago Unbound. For more information, please contact unbound@law.uchicago.edu.

Auctions and Sunk Costs in Tender Offers

Frank H. Easterbrook*

Daniel R. Fischel**

In an article published last year, we argued that the wealth of both investors and society is increased if the managers of tender offer targets neither resist takeover bids nor seek competing offers for the targets' securities.¹ Our argument took the following form.

Business consolidations may yield benefits from greater integration of production, more effective use of information, "synergy," and other sources. These benefits usually are achieved by mergers, which are less costly than hostile tender offers and can be set up to avoid recognition of taxable gains. Many or most hostile tender offers thus must be responses to the failures of the target's managers, who might be running the target poorly or spurning profitable opportunities to merge. A tender offer gives the shareholders a chance to go over the heads of managers and replace them. Bidders monitor the target's managers and orchestrate the response to inferior management.

The fact that the bid occurs at a premium over the market price indicates that revamping the target's structure or management would generate private and, in all likelihood, social gains. Resistance to the bid, if successful, frustrates the achievement of these gains. In most cases resistance reflects either mismanagement (to the extent it pointlessly denies shareholders the opportunity to obtain a premium) or manager's self-protection (to the extent its point is to preserve managers' jobs or "sell" their acquiescence in exchange for bonuses or promises of future employment).

One possible response for a target's management is to facilitate

* Professor of Law, University of Chicago.

** Professor of Law, Northwestern University; Visiting Professor of Law, University of Chicago.

We thank Lucian A. Bebchuk, Dennis W. Carlton, Ronald J. Gilson, Leo Herzel, Thomas H. Jackson, and Richard A. Posner for helpful comments on earlier drafts.

1. Easterbrook & Fischel, *The Proper Role of a Target's Management in Responding To a Tender Offer*, 94 HARV. L. REV. 1161 (1981) [hereinafter cited as Easterbrook & Fischel, *The Proper Role of a Target's Management*]; see also Easterbrook & Fischel, *Takeover Bids, Defensive Tactics, and Shareholders' Welfare*, 36 BUS. LAW. 1733 (1981).

auctions, to solicit competing bids from other firms. Auctions, unlike other responses, need not thwart the acquisition of the target or help managers appropriate for themselves some of the gains from the process. They are therefore more difficult to evaluate than are tactics designed to thwart all acquisitions.

We contended, however, that auctioneering should be subject to the same treatment as managers' other responses to tender offers, because it needlessly reduces the efficacy of the tender offer process. First, managers' ability to engage in any defensive tactics reduces the number of offers by making targets more expensive to acquire. This is a simple application of the economic law of demand. Second, auctions place the initial bidders at a disadvantage. Initial bidders incur costs of searching to find potential targets, and their bids (with the accompanying documents filed under the Williams Act²) disclose much of this information to other bidders. Subsequent bidders thus avoid the information costs that first bidders bear; if an auction ensues, the first bidder is unable to recover these sunk costs.

Drawing on a theoretical argument that investors would be willing to allow acquisitions for bargain prices if that were necessary to promote outside monitoring,³ and on empirical work establishing that the number of tender offers falls to the extent state laws facilitate auctioneering,⁴ we concluded that auctions do not benefit investors as a group even though they may raise the price realized in particular cases. By raising the price, auctions reduce the number of acquisitions and thus the amount of monitoring. The decrease in monitoring results in higher agency costs of management and thus in lower returns on investment. On this basis we concluded that all defensive tactics, whether or not for the purpose of triggering an auction, reduce shareholders' wealth.

Lucian A. Bebchuk and Ronald J. Gilson have published thoughtful critiques of our thesis. Bebchuk and Gilson agree with our contention that defensive stratagems for the purpose of preserv-

2. 15 U.S.C. §§ 78f-78n (1976).

3. See Grossman & Hart, *The Allocational Role of Takeover Bids in Situations of Asymmetric Information*, 36 J. FIN. 253 (1981) [hereinafter cited as Grossman & Hart, *The Allocational Role of Takeover Bids*]; Grossman & Hart, *Disclosure Laws and Takeover Bids*, 35 J. FIN. 323 (1980) [hereinafter cited as Grossman & Hart, *Disclosure Laws*]; Grossman & Hart, *Takeover Bids, the Free Rider Problem, and the Theory of the Corporation*, 11 BELL J. ECON. 42 (1980). This work, like our own, is an outgrowth of Henry Manne's seminal *Mergers and the Market for Corporate Control*, 73 J. POL. ECON. 110 (1965).

4. See Jarrell & Bradley, *The Economic Effects of Federal and State Regulations of Cash Tender Offers*, 23 J.L. & ECON. 371, 398-403 (1980).

ing the target's independence—or with the effect of interfering with the shareholders' choice for any other reason—reduce investors' wealth. They maintain, however, that auctions increase both shareholders' and social wealth.⁵

They focus attention on several steps in our argument. Bebchuk contends, for example, that we overstate the extent of the first bidder's sunk costs in research and that we undervalue the interests of the target's shareholders in receiving more money once the first bid is on the table. Moreover, he emphasizes, the first bidder may recoup its costs by purchasing some shares of the target before announcing its bid. He also observes that auctions usually allocate resources to their highest-valuing prospective users; unless tender offer auctions occur, he maintains, this process of allocation will be impeded. In addition, he contends that a rule of managerial passivity could lead to excessive searching and to underinvestment in potential targets. Bebchuk concludes that a target's managers should be permitted to seek out higher bidders once an offer has been made and that existing federal regulation of tender offers properly facilitates this process.

Bebchuk's points are interesting and provocative, as are Gilson's. But we disagree with both Bebchuk and Gilson for the reasons set out below. Part I deals with the nature, extent, and import of the first bidder's sunk costs in information; part II with the question whether auctions produce gains to investors; part III with the effects of auctions on resource allocation; and part IV with the implications of our analysis for the regulation of tender offers. For convenience we focus first on Bebchuk's more elaborate exposition without always drawing out his subtle disagreements with Gilson. We then turn, in part V, to Gilson's more recent arguments presented in this exchange.

I. SUNK INFORMATION COSTS

Bebchuk and Gilson argue that we overestimate both the first bidder's interest in protecting its sunk information costs and the ef-

5. See Bebchuk, *The Case for Facilitating Competing Tender Offers: A Reply and Extension*, 35 STAN. L. REV. 23 (1982) [hereinafter cited as Bebchuk, *A Reply and Extension*]; Bebchuk, *The Case for Facilitating Competing Tender Offers*, 95 HARV. L. REV. 1028 (1982) [hereinafter cited as Bebchuk, *The Case for Facilitating Competing Tender Offers*]; Gilson, *Seeking Competitive Bids Versus Pure Passivity in Tender Offer Defense*, 35 STAN. L. REV. 51 (1982) [hereinafter cited as Gilson, *Seeking Competitive Bids*]; Gilson, *A Structural Approach to Corporations: The Case Against Defensive Tactics in Tender Offers*, 33 STAN. L. REV. 819, 868-75 (1981) [hereinafter cited as Gilson, *A Structural Approach*]; cf. Gilson, *The Case Against Shark Repellant Amendments: Structural Limitations on the Enabling Concept*, 34 STAN. L. REV. 775 (1982) (opposing the use of amendments to corporate charters as a defensive tactic).

fect of auctioneering on this interest. They point out that investment bankers bear much of the cost of searching for targets, and that their fees are only a small portion of a target's value. Moreover, they argue that a bidder may recoup its costs by buying some shares at low prices before announcing its bid and by tendering to the eventual winner if an auction develops. Thus, they conclude, the first bidder's costs of information would not *prevent* searching under a rule allowing auctions.

Bebchuk and Gilson demonstrate that even in an auction first bidders might profit if they prevail, and that first bidders could recoup some of their costs even if they do not win;⁶ but they do not show, or even claim, that the same amount of search will occur as under a rule of managerial passivity. Their point goes to the magnitude of the sunk cost effect in determining search. The more important point, though, is that *any* reduction in the return from search is undesirable.

The takeover case is an example of a general phenomenon: the difficulty of establishing property rights in information. This difficulty arises because using information often gives it away, allowing others to obtain its benefits without compensating its originator. Unless either a legal regimen or some system of self-help creates informal property rights, firms will produce too little information, just as farmers will grow too few apples unless there is a rule against theft.⁷ So, for example, when Exxon searches for oil, its ability to realize the value of its information depends on contracts backed up by (or implied in) legal rules that prevent its employees from selling geophysical data to rivals, and on its legal privilege to buy land through nominees who need not disclose what they know. If, after finding oil, Exxon had to announce its discovery and wait for an auction on the tract in question, it would undertake a suboptimal amount of searching. It would be cold comfort to Exxon that it could buy five percent

6. We agree with Bebchuk and Gilson that bidders' purchase of targets' shares in advance of their offers is both desirable and lawful. A bidder has the right to do this without disclosing any intent to make a tender offer eventually. *Staffin v. Greenburg*, 672 F.2d 1196, 1202-03 (3d Cir. 1982). The rationale that Bebchuk, Gilson, and we use to explain the desirability of advance stock purchases by bidders is in tension with the SEC's limitations on the ability of bidders to assemble shares in advance through warehousemen and other friends. See 17 C.F.R. § 240.14e-3 (1982).

7. For a discussion of the way in which some legal rules may create property rights in information, see Easterbrook, *Insider Trading, Secret Agents, Evidentiary Privileges, and the Production of Information*, 1981 SUP. CT. REV. 309. See also Schwartz & Wilde, *Intervening in Markets on the Basis of Imperfect Information: A Legal and Economic Analysis*, 127 U. PA. L. REV. 630 (1979) (summarizing the legal implications of the economics of search).

of the oil-bearing land before it entered the contest for the other 95 percent on equal terms with its passive rivals.

Similar practices exist throughout the economy. Firms line up profitable opportunities, from parcels of land in Manhattan to fleets of ships, in secret, through nominees and ruses, in order to appropriate more of the value of their information and thus have correct incentives to search. Contract law does not require the disclosure of information gained through deliberate efforts.⁸ Markets produce myriad devices for capturing the value of knowledge, from corporate integration to sales of closed bags of diamonds to maximum price arrangements among rivals.⁹

In contrast to these familiar practices, the securities laws require the disclosure of great quantities of information, in tender offers and elsewhere. This disclosure reduces the likelihood that firms will produce the optimal amounts of knowledge or engage in the optimal amounts of activities that depend on information.¹⁰ The market's response was the Saturday Night Special tender offer, which required tenders before an auction could develop. It enabled bidders to capture much of the value of their investment in information, but the Williams Act has made it unlawful.¹¹ A rule of managerial passivity, although not allowing bidders to capture the full value of their information, at least allows them to obtain some.

The difficulty of appropriating the benefits of investments in information results in underinvestment, and this does not depend on

8. See Kronman, *Mistake, Disclosure, Information, and the Law of Contracts*, 7 J. LEGAL STUD. 1 (1978) (summarizing the cases and their economic rationale).

9. See Barzel, *Measurement Cost and the Organization of Markets*, 25 J.L. & ECON. 27 (1982); Barzel, *Some Fallacies in the Interpretation of Information Costs*, 20 J.L. & ECON. 291, 301-05 (1977) (sales of diamonds); Easterbrook, *Maximum Price Fixing*, 48 U. CHI. L. REV. 886, 892-98 (1981); Kitch, *The Law and Economics of Rights in Valuable Information*, 9 J. LEGAL STUD. 683 (1980); Stigler, *An Introduction to Privacy in Economics and Politics*, 9 J. LEGAL STUD. 623 (1980).

10. Fischel, *The Law and Economics of Dividend Policy*, 67 VA. L. REV. 669, 721-22 (1981) [hereinafter cited as Fischel, *The Law and Economics of Dividend Policy*]; Fischel, *Efficient Capital Market Theory, the Market for Corporate Control, and the Regulation of Cash Tender Offers*, 57 TEX. L. REV. 1, 13-15 (1978) [hereinafter cited as Fischel, *Efficient Capital Market Theory*]; Grossman & Hart, *Disclosure Laws*, *supra* note 3; Jarrell & Bradley, *supra* note 4, at 385, 402. For a general treatment of inefficiencies induced by disclosure obligations, see Grossman, *The Informational Role of Warranties and Private Disclosure about Product Quality*, 24 J.L. & ECON. 461, 479 & n.13, 480 (1981); Jovanovic, *Truthful Disclosure of Information*, 13 BELL J. ECON. 36, 41-42 (1982).

11. For an argument that the Williams Act, and particularly its disclosure provisions, has deprived bidders of a property right in privately produced information, see Fischel, *Efficient Capital Market Theory*, *supra* note 10, at 13. See also Jarrell & Bradley, *supra* note 4, at 404 (disclosure requirements dilute the "acquiring firms' property rights to the knowledge of how to accomplish valuable corporation combinations"). We discuss the Williams Act in greater detail in notes 34-38 *infra* and accompanying text.

the costs of information being large or small. When any part of the value of information is lost to its producer, there will be inefficiently little produced.¹² And when bidders produce too little information, there is too little monitoring and investors' wealth falls.

Although we thus conclude that the size of the first bidder's sunk costs is important only to the magnitude, not to the existence, of the problem, we are also skeptical of any assertion that the magnitude is small. Bebchuk and Gilson scrutinize the fees charged by investment bankers for providing information, but the fees in contested offers do not exhaust the bidder's costs. Bidders invest their own time in searching for targets, and the opportunity costs of managers' time so committed includes the value to the bidders of other projects foregone. Because the search will cover many firms in addition to the one eventually selected for a bid, it may take a substantial amount of time. Bidders must assemble and hold capital at the ready for a possible acquisition, and the first bidder's time and capital is committed for the longest time. Even investment bankers must incur the cost of keeping information at the ready. They too will produce suboptimal information if they anticipate fewer first bids.

The first bidder also bears another special risk that must be counted as part of the cost of searching for targets: It must make the offer under considerable uncertainty, often without access to the internal documents of the target. Some first bids are bound to exceed the offers that would be justified by complete information, and these bids will not provoke auctions. To the contrary, the first bidder will win every time it bids mistakenly high. Yet when it errs on the other side, an auction would drive the price up. The first bidder's risk, then, is that it will be left with a prize collection of losers when it overbids, while competition will deny it any gains on other offers.¹³

The size of these costs is, of course, an empirical matter, on which we have no data. But one need not believe the claims of several white knights—which have maintained that they needed lock-up options

12. For an analysis of several arguments suggesting ways in which there might be too much investment in the production of information, even while there is imperfect appropriability, see notes 21–26 *infra* and accompanying text.

13. This more than offsets the "strategic advantage" that Bebchuk claims a first bidder may have by virtue of timing, see Bebchuk, *The Case for Facilitating Competing Tender Offers*, *supra* note 5, at 1036 & n.45, an advantage that, in any event, has certainly not been much in evidence in recent contests.

There are, however, bidding responses to the problem of the winner's curse discussed in the text. Bidders may systematically reduce their offers to compensate for the risk of error. See Wilson, *A Bidding Model of Perfect Competition*, 44 REV. ECON. STUD. 511 (1977).

on 25% or more of the target's shares or assets to make even a *second* bid worthwhile¹⁴—in order to conclude that the costs are substantial. The costs are probably sufficiently great that the first bidder's ability to cover some of them by purchasing shares in advance of offers would not come close to providing first bidders with optimal incentives to invest in information about targets.

Our point ultimately does not depend on the size of first bidders' costs; so long as information costs are positive, their inability to appropriate the full value of their information will lead them to produce too little. That will reduce the number of tender offers and the effectiveness of the process in monitoring managers. This is a simple application of marginal analysis. We cannot tell how much the reduction will be, but it will exist, and *any* reduction is too much unless there are offsetting gains, a subject to which we now turn.

II. GAINS TO INVESTORS

Reducing the number of tender offers, and thus the effectiveness of monitoring, will have social costs, but it will most directly harm those who are potential target shareholders, i.e., shareholders in mismanaged firms. Nevertheless, Bebchuk presents as an offsetting gain the increase in the premium that the target's shareholders receive in auctions. He contends that "[f]rom the perspective of targets' shareholders, abandonment of the rule of auctioneering to enhance further rewards for search is justified only if the resulting increase in offer frequency can be so large that it will outweigh the loss of the rule's significant positive effect on premiums."¹⁵ He concludes that the "frequency effect" is small and the "premium effect" large, so that on balance auctions aid targets' shareholders.

Bebchuk's fundamental error is his (implicit) assumption that investors can identify potential targets in advance of bids. Only if they could do this could they identify themselves as *target* shareholders with an interest in high premia. If this assumption is correct, if the "frequency effect" really is small, and if an increase in premia is the same thing as an increase in price,¹⁶ Bebchuk's argument would be

14. Some instances are collected in Fraidin & Franco, *Lock-Up Arrangements*, 14 REV. OF SEC. REG. 821 (1981); Nathan, *Lock-Ups and Leg-Ups: The Search for Security in the Acquisitions Marketplace*, 13 INST. ON SEC. REG. 1, 13, 59-72 (1981).

15. Bebchuk, *The Case for Facilitating Competing Tender Offers*, *supra* note 5, at 1038.

16. It is very difficult to tell whether auctions raise the price paid for shares. They raise the premium over market, but the premium can go up because the market price falls. In our earlier article, we stressed the likelihood that a no-auction rule would lead to takeovers whenever the market price reflected even a slight managerial shortcoming, leading managers to

correct. But investors cannot identify potential targets until shortly before the bids are announced.¹⁷ An investor purchasing shares must consider the possibility that his firm will become a bidder rather than a target or will not become either. If the status of a firm is unknown when an investor buys its stock, the rules with respect to auctions will not produce investment gains. The investor would anticipate gains (relative to a rule of managerial passivity) if the firm should become a target and losses if the firm should become a bidder or not be acquired.

The point may be clearest when we consider investors holding portfolios of stocks. If the portfolios are sufficiently diversified, these investors will be on both sides of tender offer auctions, holding positions in bidding corporations and target corporations alike. They cannot gain from the higher premium paid to the targets' shareholders because they lose as investors in bidders what they gain as investors in targets. And they lose more to boot. First, the costs of running the auctions are a dead weight loss to them and to society. Second, they lose because the increased costs of bidding lead to fewer offers and thus, as a result of decreased monitoring and higher agency costs, to lower prices for all firms that are neither targets nor bidders.¹⁸

Investors holding diversified portfolios therefore would not "balance" the size of premia against the frequency of offers. They view premia as transfers from one of their pockets to another, and they care *solely* about the effects of auctions on monitoring. We can say with confidence—and at least Bebchuk agrees with this—that auc-

take extra care, while an auction rule would allow the price to fall significantly before the costs of a takeover would become worth the trouble. The higher premium received after an auction may reflect the decreased pre-bid price—a decrease that would not occur under a no-auction rule—rather than the benefits of auctioneering. See Easterbrook & Fischel, *The Proper Role of a Target's Management*, *supra* note 1, at 1177–80.

17. If investors could identify a potential target, its price would rise well in advance of the offer to reflect the probability that its shareholders will receive a takeover premium. But all of the available information shows that the price of the target's shares is constant or declining until very shortly before the bid is announced. This implies that even sophisticated investors cannot identify potential targets with any confidence. If they could do so, they would purchase shares in advance, driving up the price, as happens once word begins to leak in the days before the offer. See Bradley, *Interfirm Tender Offers and the Market for Corporate Control*, 53 J. Bus. 345, 363, 370–71 (1980) (documenting rise in price of targets' shares beginning about one month before offers are announced).

18. A different argument raised by Bebchuk is that an auction would move corporate assets to their highest-valuing user more efficiently than would an uncontested tender offer followed by a series of sales. Of course, if this is true, shareholders would gain from auctions. We think Bebchuk is wrong, however, and discuss this issue at notes 29–31 *infra* and accompanying text.

tions do, to some extent, reduce monitoring and the number of offers made.¹⁹ We therefore can say with confidence that shareholders who hold diversified portfolios are worse off under a rule of auctioneering than under a rule of managerial passivity.

Of course not all investors hold fully diversified portfolios. They can do so if they desire, however, by investing in diversified funds at a cost less than that of holding and trading smaller portfolios. If investors choose to forego diversification, they presumably have decided to accept the extra risk with its added return.²⁰

But ultimately the argument does not turn on diversification. Diversification only illustrates the point with which we started—that of an investor who does not know whether his firm will be a target, a bidder, or a bystander. Like the holder of a diversified portfolio, this investor is best off when the legal or contractual rule maximizes total wealth. The investor does not value the prospect of receiving an extra premium (if his firm turns out to be a target) when there is an equal prospect of an equal loss (if his firm turns out to be a bidder). Moreover, because of the decreased monitoring, he faces a certain loss of unknown size if his firm turns out to be a bystander. Thus, even the investor with a single share of stock loses by virtue of the expected increase in the agency costs of managing all firms.

III. SOCIAL WEALTH

Both Bebchuk and Gilson conclude that auctions increase social wealth. For Bebchuk, auctions provide five potential sources of social gains: (1) avoidance of potentially excessive investment in search-

19. Gilson's position is unclear. His comments suggest that he may believe that allowing management to facilitate auctions always increases the number of offers. See Gilson, *Seeking Competitive Bids*, *supra* note 5, at 52-62, 66.

20. We discuss the implications of diversification for the treatment of major corporate transactions more fully in Easterbrook & Fischel, *Corporate Control Transactions*, 91 YALE L.J. 698, 711-14 (1982). There we show why the availability of diversification implies that the law should be indifferent to the distribution of gains, and we discuss in some detail the Brudney and Chirelstein proposals on which Bebchuk relies. See Bebchuk, *A Reply and Extension*, *supra* note 5, at 36; see also J. LORIE & M. HAMILTON, *THE STOCK MARKET: THEORIES AND EVIDENCE* 171-259 (1973) (thoroughly discussing diversification).

Because investors freely choose the extent of their diversification, it is immaterial to the selection of a legal rule that some investors may forego that device; Bebchuk's observation that some undiversified investors may suffer losses in tender offers, see Bebchuk, *A Reply and Extension*, *supra* note 5, at 29, is thus as unimportant as the fact that some undiversified investors reap large gains. Whether the probability of a firm's being a bidder is equal to or different from its probability of being a target also is unimportant. Risks are diversifiable even though each firm has a different probability of bidding or being acquired, so long as each bidder is matchable with an acquired firm in a diversified portfolio.

ing; (2) increased investment in potential targets; (3) increased incentives for targets' managers to engage in searching; (4) reduction in the number of value-decreasing acquisitions; and (5) movement of assets to their highest valued uses. Gilson identifies (5) as the source of his principal concern. We consider them below.

1. *Incentives to search.*

Potential bidders presumably search for targets until, at the margin, a dollar of additional search costs produces for them just a dollar of gain. But Bebchuk believes that this may lead to too much searching, for a bidder's private gains may exceed the social gains. He sees auctions, which reduce the private gains, as a method of compensating for the problem.

Excessive search is a "problem," of course, only if private and social gains from search are poorly synchronized. The economics literature presents several ways in which investment in information might not produce commensurate social gains.²¹ For example, investing in information that just predicts future events may allow the searcher to profit by speculating on their occurrence, but with no resulting social gain. Similarly, firms may produce too much information if they can place "side bets" by advantageously situating themselves in markets affected by their principal activity.²² The foreknowledge and side bet problems do not appear to be important in tender offers, however, because even if bidders obtained foreknowledge that had escaped the market's attention, managers' revelations would prevent them from "stealing" the firm or capitalizing on side bets. A tender offer benefits the bidder by allowing him to change the future; his gains are not just from predicting it.

Bebchuk suggests in this exchange that, unless legal rules facilitate auctions, some tender offers will be by bidders who have merely identified stock they think undervalued in the market, and thus these offers will be motivated by foreknowledge alone.²³ But it is far from

21. For the classic articles, see Fama & Laffer, *Information and Capital Markets*, 44 J. BUS. 289, 292-94 (1971), and Hirshleifer, *The Private and Social Value of Information and the Reward to Inventive Activity*, 61 AM. ECON. REV. 561, 566-67 (1971).

22. Bebchuk identifies other ways in which private and social gains may be out of sync, leading to excessive search. In particular, he focuses on the private tax benefits and anticompetitive gains that might result from acquisitions. See Bebchuk, *The Case for Facilitating Competing Tender Offers*, *supra* note 5, at 1032-33 & nn. 23-24, 1047. These social costs reflect policy determinations better dealt with by adjusting tax and antitrust law than by modifying the laws concerning tender offers.

23. Bebchuk, *A Reply and Extension*, *supra* note 5, at 34-35.

clear that investing in "foreknowledge" of that sort is deleterious. Such acquisitions do produce social gains. If a firm's stock is indeed undervalued, there is too little investment in that industry; investors apparently are not anticipating returns commensurate with reality. Correction of the undervaluation via tender offers would produce more appropriate investment incentives, just as would correction via the arbitrage function of other professional investors.

Whatever may be the welfare implications of such acquisitions, it is unlikely that there could be many firms with persistent, exploitable differences between their market prices and their real values. Even a small difference would lead sophisticated investors to act long before a tender offer could be undertaken. Moreover, a rule of passivity, by allowing tender offers to occur quickly and easily, would itself reduce to a small level any disparity between price and value: That is one of the principal gains of the passivity rule, as our initial article emphasized.²⁴

Bebchuk's principal argument, that stock market gains resulting from takeovers may not represent real social gains, also is contrary to the evidence. We addressed this possibility in our original article and do not repeat the analysis here.²⁵ We relied on studies that strongly support the inference that takeovers produce real gains. Bebchuk argues that whatever the averages look like, many takeovers are best understood as managerial self-aggrandizement. His argument for this, however, is largely conjecture.²⁶ We cannot disprove Bebchuk's assertion, but we find the data to be compelling evidence that there are real gains involved in almost all offers. Doubtless some bidders make mistakes, paying too much or buying firms that are already optimally managed. But markets—including the market for corporate control—penalize these blunders, and there is no greater rea-

24. See Easterbrook & Fischel, *The Proper Role of a Target's Management*, *supra* note 1, at 1167-68. One can doubt Bebchuk's argument on other compelling grounds too. For example, Bebchuk never offers a response to the proof of Grossman & Hart that such foreknowledge bids would not be profitable in light of the rational reactions of shareholders. See Grossman & Hart, *The Allocational Role of Takeover Bids*, *supra* note 3.

25. Easterbrook & Fischel, *The Proper Role of a Target's Management*, *supra* note 1, at 1184-88.

26. For example, Bebchuk suggests that recent offers for oil companies have occurred because the market price of the targets' shares did not reflect the value of their reserves. See Bebchuk, *The Case for Facilitating Competing Tender Offers*, *supra* note 5, at 1032. He offers, as support, a statement by an officer of the bidder quoted in a judicial opinion. *Id.* at 1032 n.28. Economists give little weight to such "evidence"; doubtless some other officer would tell a different story. It does not matter whether this officer *knew* (or could articulate) the reason for the bid. Markets reward astute managers, not (necessarily) articulate ones, and numbers talk much louder than words.

son to discourage investment in information about target firms than in information about inventions or the location of fertile soil for growing corn.

Even a no-auctioneering rule would likely yield too little search. The threat of takeover serves as a powerful monitoring device, the benefits of which inure to all shareholders. Because no bidder can capture the full gains, no bidder will invest in search up to the point where the last dollar spent on search equals the marginal social gain. There is a welfare loss here, but it comes from too little investment in search, not from excessive investment.

2. *Underinvestment in potential targets.*

Bebchuk argues that a rule of auctioneering, by increasing the premium paid to targets' shareholders, will lead to additional investment in the potential targets. Bebchuk again incorrectly assumes, however, that it is possible to identify potential targets at the time they are formed, or perhaps at the time they issue new securities. As we argued in part III, they cannot be so identified. But even if they could be, why would society (or shareholders) gain by increasing investment in prospective targets? These firms are likely the victims of inferior employment of productive resources. Far better to channel investment to other firms that make better use of scarce resources.

3. *The incentives of targets' managers to search.*

Bebchuk maintains that a rule of auctioneering would induce managers of potential targets to look for appropriate acquirers. Surely it would, but it is harder to know whether shareholders gain as a result. Managers dedicated to shareholders' interests would search for potential acquirers whether or not a tender offer had been announced. In contrast, a search by the old managers that begins only after an offer has been announced is orchestrated by those whose motive may be more to preserve their jobs than to obtain a bonus for shareholders. A rule of passivity such as ours would hinder only this latter type of search. It would not hinder searches before a tender offer, and because the new shareholder (the bidder) could resell the target's assets after completing the acquisition, it would certainly not hinder subsequent search. We discuss this below.²⁷

27. See notes 29-31 *infra* and accompanying text.

4. *Reducing the number of value-decreasing acquisitions.*

A bidder uncertain about the value of a prospective target may wish to obtain some information through friendly negotiations rather than to launch an unfriendly offer. Bebchuk says that under a no-auctioneering rule targets' managers might more likely respond to negotiations by quickly seeking an alternative tender offer, because this would be their only chance to act. He argues that this could lead bidders to avoid making friendly overtures, and they would thus make more mistakes.

This accuses bidders of irrationality. A no-auctioneering rule puts the choice about strategy in the hand of bidders (and shareholders). They may choose whichever method of acquisition—including friendly merger, hostile tender offer without auction, or hostile offer with auction—is most advantageous. A bidder that needs more information may seek it, threatening a hostile bid if managers do not cooperate. An auctioneering rule simply reduces the bidder's options and places prospective bidders in an awkward position if targets' managers use friendly overtures as signals to begin digging moats and trenches. An auctioneering rule gives managers the option of sandbagging bidders who make friendly approaches; a passivity rule denies them this option and therefore gives potential bidders a more effective bargaining position when they seek information.

5. *Moving assets to their highest-valued uses.*

We come now to the most interesting of the arguments. Bebchuk and Gilson maintain that auctions ensure that the target's assets move to their highest-valuing users. They therefore recommend that offers remain open so that competing bidders may come forth with or without the target's assistance.

Now many goods are sold by auction, including paintings, antiques, and old houses. Presumably these auctions enable higher-valuing users to obtain these assets. But many other goods, including new issues of stock in corporations, are not sold at auction. If A wants to buy widgets and B is willing to sell, there is no legal requirement that the offer remain open for an extended period so that another purchaser who values widgets more than A can learn of the offer and arrive on the scene. If C values the widgets more than A , he can buy them from A later.

We suggested in our original article that one difference between paintings and widgets is that the market offers a ready price for widgets, a price on which A and B can rely without conducting an auc-

tion. The shares of corporations, we said, are sold in liquid markets and are not at all unique goods like paintings or old houses.²⁸

This is not a dispositive answer, for targets and bidders are not quite interchangeable. Because there is uncertainty about the value of the target after a change in control, it may be difficult to match targets with highest-valuing bidders. Sometimes managers of targets could perform this matching by negotiating mergers. If the managers refuse to negotiate, or if negotiation is undesirable for some reason, firms may resort to tender offers. But the initial bidder may not be able to put the target to a use as efficient as some other firm. Our approach implies that a series of trades among firms would occur until the target's assets ended up with their highest-valuing users; perhaps, along the way, different parts of the target's assets and operations would be sold to different firms. Bebchuk and Gilson, in contrast, are skeptical of the first buyer's willingness to resell; they fear that managers would not reduce the size of their empires or that high transaction costs would impede subsequent transfers.

Whether buyers would resell assets to higher-valuing users—and, if so, what the costs of a series of sales would be—are questions that cannot be answered at the level of theory. We suspect that the costs of a drawn-out auction exceed the costs of an acquisition without auction, followed by retransfers, but we cannot be sure. We also suspect that the value of many targets is highest if different bundles of their assets are transferred to different firms,²⁹ and this means that a drawn-out auction would not avoid the need for subsequent retransfers. Firms routinely sell parts of their operations to other firms, and these transfers increase the value of investments in the selling and buying firms alike.³⁰ There is thus little evidence to support the belief that managers systematically reject the opportunity to profit by

28. See Easterbrook & Fischel, *The Proper Role of a Target's Management*, *supra* note 1, at 1176 n.40. Notice that only old houses are sold through extended negotiations. New houses and apartments are sold at fixed prices because the thicker market for similar houses in developments, or for identical apartments, enables the sellers and buyers to obtain price information without auctioneering. The same is true of corporate shares.

29. The dismemberment of Pullman, following its acquisition by Wheelabrator-Frye, is perhaps the most striking example. See also Ingrassia, *Employees at Acquired Firms Find White Knights Often Unfriendly*, Wall St. J., July 7, 1982, at 23, col. 3.

30. See A. Klein, *Financial, Informational, and Empirical Implications of Major Voluntary Corporate Divestitures* (draft, January 1982). Klein found that between 1970 and 1979 firms listed on the principal stock exchanges accomplished almost 300 major voluntary divestitures, and that the stock of the divesting firms appreciated by some 5% at the time of the divestitures. Most of the divesting firms, moreover, sold only a single division, so this "willingness to sell" was not confined to a few management teams.

selling plants and divisions.³¹

The allocational benefits of auctions thus seem to be small if not negative. At the same time, auctions increase the risk borne by the first bidder and make tender offers more costly (and less likely). Moreover, it is all too easy for managers to conduct a defensive strategy under the guise of running an auction. Although Bebchuk and Gilson would permit "auctioneering" only if it is neutral between the first and subsequent bidders,³² it does not take much imagination to see that managers could give white knights decisive advantages by selectively releasing information or striking deals.³³ Such disguised resistance is an additional source of loss from a rule of auctioneering.

IV. REGULATING TENDER OFFERS

A rule of auctioneering could work only if many firms have the time and information necessary to consider making offers. Thus Bebchuk approves of federal and state regulations that require offers to stay open for minimum periods, that allow shares to be withdrawn, and that prevent bidders from purchasing large blocks of

31. Gilson argues that managers may well "overinvest in both new products and new divisions" as a result of their preference for growth in size rather than maximum profits. Gilson, *Seeking Competitive Bids*, *supra* note 5, at 63. Bebchuk also employs this managerialist approach. Bebchuk, *The Case for Facilitating Competing Tender Offers*, *supra* note 5, at 1033. If managers indeed prefer size to profits, the likelihood of retransfer of assets would be reduced. But managers who pursue size at the expense of profits face hard going at the hands of determined rivals and may end up with neither profits nor size. The available evidence, which we marshalled elsewhere, offers little support for the managerialist thesis. See Easterbrook & Fischel, *The Proper Role of Target's Management*, *supra* note 1, at 1185-88; Fischel, *The Law and Economics of Dividend Policy*, *supra* note 10, at 710-14.

32. Thus Bebchuk and Gilson would not allow lock-ups. These are sales of assets or shares to white knights at bargain prices for the purpose of making the deal uniquely attractive to them, and, not incidentally, to reduce the maximum price the first bidder will offer in the auction. (The first bidder's price goes down because the lock-up sales or options allow the white knight to dilute the value of shares acquired by any firm other than itself.)

33. Consider Brunswick's search for a white knight in response to Whittaker's hostile offer. Brunswick's managers increased their own salaries, made information available to friendly suitors, and struck a deal with American Home Products that entailed a higher cash price for some shares but a lower average price for the deal. (Whittaker's bid involved issuance of debentures of uncertain value, so that there might be a reasonable debate about the relative values of the deals; but Brunswick's own investment bankers calculated that the white knight's bid was worth less on an average than Whittaker's bid.) See Metz, *Brunswick's Bailout Plans*, N.Y. Times, Mar. 1, 1982, at D6, col. 3. Or consider Marshall Field's sale to Batus in 1982 at a price far below what Carter Hawley Hale was willing to pay in 1978; perhaps Field's managers could justify this as an "extended," if not fully successful, auction. Gilson points out that his approach, like ours, would condemn these maneuvers. Gilson, *Seeking Competitive Bids*, *supra* note 5, at 65 n.33. The problem we foresee, however, is that under a Bebchuk-Gilson rule, managers would adapt their conduct in the future to make these stratagems more difficult to detect.

stock in the open market. Indeed, Bebchuk (unlike Gilson) apparently would revise existing rules by extending the minimum offer period and requiring bidders to give notice before making offers.³⁴

Such regulations of tender offers disregard the importance of property rights in information. Auctioneering under current law has the problems we have described above; amendments to the rules would have the same problem to a greater degree.

Consider what may be the clearest case. The Williams Act requires offerors to disclose "material" facts about the target, including their plans for the target if they obtain control. Although Bebchuk does not discuss the disclosure rules, surely they could be justified as facilitating auctioneering. The offeror's information is valuable to the targets' managers and shareholders; it is valuable to competing bidders as well. Disclosure therefore increases the prices realized in those cases where bids take place. Moreover, if the first bidder fails, managers or others may use the information to their advantage later, further benefiting the target's shareholders. If information were a free good, disclosure rules would benefit shareholders. But it is not, and disclosure of scarce goods without compensation simply leads to less production. That means less monitoring, fewer takeovers, and lower prices for shares.³⁵

Waiting periods, advance notice rules, and the related paraphernalia of auctioneering have the same effects, although to a smaller degree. Information leaks out, or is inferred, during the wait. The first bidder's costs and risks rise. Reductions in the number of shares the bidder can buy in secret make it harder still for the bidder to recover the costs of search.

Bebchuk's proposed rules have some problems independent of their effect on information costs and risks. His rule prohibiting first bidders from secretly purchasing any significant block of stock in the target, lest they obtain too much of an advantage over later bidders, would inhibit proxy contests for control of any firm. In almost all such contests the rivals "buy votes" by purchasing the stock to which

34. See Bebchuk, *A Reply and Extension*, *supra* note 5, at 45-46.

35. See Fischel, *Efficient Capital Market Theory*, *supra* note 10, at 13-14, 26-27 (disclosure requirements reduce the incentives to produce information by increasing the costs of making a tender offer); Grossman & Hart, *Disclosure Laws*, *supra* note 3, at 329-33 (disclosure requirements reduce the incentive for good management by reducing the threat of a takeover bid); Jarrell & Bradley, *supra* note 4, at 386, 398-403 (empirical evidence shows that takeover regulations cause an increase in tender premiums and a decrease in tender offers and in the production of knowledge). See generally Easterbrook & Fischel, *The Proper Role of a Target's Management*, *supra* note 1.

the votes are attached. Rivals for control obtain substantial positions and campaign for the votes of the remaining, unpurchased shares. Only such a combined-purchase campaign strategy overcomes the substantial free riding problems that hinder shareholders' voting.³⁶ Available data also demonstrate that the assembly of large blocks of stock in a firm is associated with an increase in the price of its shares.³⁷

All of this suggests that shareholders are unlikely to gain from rules that promote auctions and inhibit the assembly of blocks of stock in publicly traded firms. The optimal level of regulation of tender offers for either purpose is zero. Private and social wealth is greatest when bidders choose their own time periods and disclosures, subject to a prohibition of fraud. This is the way the law of contracts governs other transactions, and the way tender offers proceeded until the Williams Act was adopted in 1968.³⁸ Bebchuk and Gilson have not made a sufficient case for departing from this private law model.

V. SEPARATING INFORMATION AND IMPLEMENTATION

Gilson's latest article significantly extends his earlier analysis of auctioneering versus passivity, and its focus is different from Bebchuk's. His new argument is that any proper treatment of the subject must decompose the bidder's costs into those of information and those of implementation. When that is done, he maintains, it

36. See Easterbrook & Fischel, *The Proper Role of a Target's Management*, *supra* note 1, at 1171; Manne, *Some Theoretical Aspects of Share Voting*, 64 COLUM. L. REV. 1427, 1439-44 (1964); see also Dodd & Warner, *On Corporate Governance: The Impact of Proxy Contests* 11 J. FIN. ECON. (forthcoming 1983) (showing that proxy contests, even unsuccessful ones, are beneficial for the investors of the firms involved); Easterbrook & Fischel, *Voting in Corporate Law*, 26 J.L. & ECON. (forthcoming 1983).

Bebchuk's response is that buyers still could accumulate blocks if only they would disclose the accumulation. This implicitly assumes that disclosure has very low or no costs. See Bebchuk, *A Reply and Extension*, *supra* note 5, at 45. Bebchuk offers no basis for this assumption, and there are good reasons for assuming that disclosure is quite costly. See Fischel, *Efficient Capital Market Theory*, *supra* note 10, at 6-7. The costs are especially troublesome in proxy cases because of the free riding problem.

37. See, e.g., Madden, *Potential Corporate Takeovers and Market Efficiency: A Note*, 36 J. FIN. 1191 (1981) (finding almost 20% gain in the month before the existence of the block is announced); see also L. Dann & H. DeAngelo, *Standstill Agreements, Privately Negotiated Stock Repurchases, and the Market for Corporate Control*, 11 J. FIN. ECON. (1983) (forthcoming) (finding approximately 5% loss when a firm announces that it is repurchasing an outstanding block of shares). Moreover, the existence of the block reduces the agency costs of management, because the holder of the block will have a greater incentive to monitor than do investors who have only small positions.

38. See, e.g., *Mills v. Sarjem Corp.*, 133 F. Supp. 753 (D.N.J. 1955).

becomes clear that auctions sometimes increase the returns on investment in information.

We do not doubt that learning about firms and taking them over are separate tasks. Nor do we doubt that here, as elsewhere, a division of labor may be beneficial. Just as Exxon, for example, may elect to buy its geophysical data from a specialty exploration firm rather than to do the work internally, those firms interested in completing corporate takeovers may elect to buy information from investment bankers, who may specialize in generating it.

Firms specializing in generating information might find their returns highest when they have other firms engage in tender offer auctions. But this is by no means clear.³⁹ Investigating a firm and acquiring it are complementary inputs into takeovers, just as film and processing are complementary inputs into finished pictures. The price of one of the complementary inputs goes up when the price of the other goes down.⁴⁰ Thus, for example, people buy more film for higher prices when processing becomes cheaper, and a reduction in the price of film also leads to an increase in the number of finished photos purchased. Similarly, when the price of acquisition rises under a rule of auctioneering, people will buy less of the complementary input, information, rather than more. Gilson appears to argue, however, that people would buy more information as the prices of the targets rise. This is implausible.

Gilson argues that a firm selling information can buy shares as a hedge and can thus make a greater return on investment than a firm generating its own information and using it to acquire the target. Gilson gives hypothetical examples to illustrate the point. The examples involve the takeover of a corporation with one million outstanding shares, each with a market price of \$50. Search costs are \$2.5 million, and, in the absence of competitive bidding, a successful tender offer could be made for \$100 per share. Under new management the firm's total value would increase from \$50 million to \$120 million. In Gilson's first hypothetical, the firm acquiring the target also conducts the search. It spends \$97.5 million (\$2.5 million for

39. See *Perrin v. United States* 444 U.S. 37, 40 (1979). Independent exploration firms in the petroleum industry generate information about the location of oil. After developing information, they do not usually invest in the tract, announce the results of their search, and stage an auction for the tract. Rather, they usually work directly for a company seeking the information, going to great lengths to preserve the confidentiality of their information and to hold down the price of mineral rights. There is no reason why we should expect corporate acquisitions to be different.

40. See G. STIGLER, *THE THEORY OF PRICE* 31-33 (3d ed. 1966).

search costs plus \$5 million for the pre-disclosure acquisition of 10% of the target's stock plus \$90 million for the 90% of the stock acquired in the tender offer) to make \$120 million, a return of 23%. In the second hypothetical, an information-generating firm acquires the needed information, and, after buying 10% of the target's stock, passes the information on to another firm that will complete the takeover. The firm generating the information spends \$7.5 million (\$2.5 million for search costs plus \$5 million for the pre-disclosure acquisition of stock) to make \$10 million, a return of 33%.

Even if firms behave as Gilson predicts,⁴¹ his examples may nevertheless be misleading. Gilson's information-generating firm would make even *more* than \$10 million if it could prevent an auction from arising. Then it could sell the knowledge to a prospective bidder for some part of the more than \$20 million that, in Gilson's example, the bidder stands to make. By selling the information in a way that allows the bidder to maximize its gains, the information-specialist maximizes its own gains.⁴²

Gilson properly points out that it may be hard for firms without reputations to sell information. They would need to issue warranties about the value of the information, and few would have the assets to back up their warranties. But the market's response to the difficulty of verifying information goes beyond the reputation, signaling, and bonding approaches Gilson discusses: Another approach is vertical integration. To the extent vertical integration is the market's response to the information problem, we are driven back to our initial

41. Gilson assumes that the bidder will acquire at \$100 per share all of the target's stock it did not purchase before the bid. But the bidder need not follow this rule. Having purchased 10% before announcing its bid, it could seek an additional 41% of the stock for \$100 per share and follow up with a merger at the original market price of \$50. The bidder then pays \$50 for 59% of the shares and \$100 for 41%. The bidder's total investment is \$73 million (\$70.5 million for stock and \$2.5 million for information); its gain is \$120 million; and its rate of return on investment 64%.

We, like Gilson, have used returns on investment in a highly artificial manner. We do not say return over what period of time, and we do not adjust the returns to account for the risk that the anticipated gains will not materialize. The return numbers thus are useful only for the crudest kinds of comparisons.

42. If, for example, the information-specialist could arrange for an acquisition of the target's shares at the no-auction prices given in note 41, *supra*, the bidder would have a profit of \$49.5 million if it did not need to pay for information. But by hypothesis the acquisition depends on the information generated by the specialist. Thus firms would pay as much as \$49.5 million (less the risk-adjusted competitive rate of return on an acquisition) to have the information. If the payment is as little as \$10 million, the information-specialist obtains a return of 400% on its investment.

position that the integrated information-generator and acquirer will do too little monitoring under an auctions rule.

Gilson presumably intends his numerical example to show that firms may gain from specialization: Some will be better at information generation and some will be better at implementing takeovers. One may grant the proposition that the division of labor sometimes provides gains in such cases, but Gilson's example does not depend on such gains. In the example, both the information generator and the acquiring firm earn \$2.5 million on information and \$5 million from purchasing shares. Neither has a comparative advantage in identifying potential targets. The difference in the rate of return comes wholly from the method of finance. The acquiring firm spends an additional \$90 million to make an additional \$110 million, a 22% return that depresses the 33% return on information alone. Yet why would firms spend \$90 million in this way? If the risks of generating information are identical to the risks of acquisition (as they must be for a rate of return comparison to make sense), then either firm would spend its \$90 million to buy information and stock, an activity at which it would earn 33%. All firms would be information-generators until the process of arbitrage had obliterated the differences in risk-adjusted returns. Gilson's example thus does not illustrate equilibrium.

Whether a bidder, or a firm specializing in information, can increase its returns by auctioning off the target could conceivably depend on the particulars of a given case.⁴³ If an auction increases the rate of return, and first bidders are rational profit maximizers, they will run auctions themselves—or give their blessings to the targets' managers. The returns of bidders or information specialists might be highest when they have the option to run or not to run, to allow or not to allow, auctions, as they deem best.⁴⁴ A rule depriving those

43. For example, Carl Icahn evidently thought that his returns would be highest if he purchased shares of Marshall Field and encouraged a takeover. He purchased stock incrementally while he threatened to commence a proxy fight. This strategy almost guaranteed that other firms would jump in and bid for Field if, as Icahn was gambling, Field's value to prospective bidders exceeded the price he had paid. Icahn's block of shares would be available to the highest bidder to smooth the path of a takeover. *See Marshall Field & Co. v. Icahn*, 537 F. Supp. 413 (S.D.N.Y. 1982).

44. Gilson argues that a rule of auctioneering promotes efficiency because it gives a second bidder the choice between making a competing bid and acquiring the target from the first bidder. Thus, he says, the existence of competing bids is "powerful empirical evidence that a rule of passivity is inefficient." Gilson, *Seeking Competitive Bids*, *supra* note 5, at 62. The conclusion does not follow. The existence of competing bids under current circumstances shows no more than free riding. Why should legal rules be structured to minimize the cost

who generate information of the choice about how to use it cannot increase the returns to the information-generators.⁴⁵

CONCLUSION

Thus we return to the point of our original article. When the auctioneering (or defense) decision is placed in the hands of the target's managers, the returns to gathering information go down. When these returns decrease, there will be less information, fewer first bids, and fewer gains from the tender offer process. For ordinary assets there is no reason not to put the auction-versus-no-auction decision in the hands of the owners, who presumptively maximize their own wealth. But in tender offer cases the presumption that managers look out for the shareholders' best interests does not carry the day. The Supreme Court recognized this when it held that state laws facilitating defensive tactics are unconstitutional burdens on interstate commerce. As the Court observed, obstructions to initial offers hinder the "reallocation of economic resources to their highest-valued use" and reduce "the incentive the tender offer mechanism provides incumbent management to perform well."⁴⁶

Although we have not *proved* that a no-auction rule maximizes the wealth of investors and society, we think the case strong. The available data support a no-auction rule, and the possibility of diversification all but ensures that investors prefer to maximize the gains from the monitoring and takeover process rather than to maximize the price a given target may fetch in an auction. A definitive answer must await more research, but this is always the case;⁴⁷ courts and legislatures must act on the basis of the best available data.

borne by these bidders? Allocational efficiency is greatest when *first* bidders, those responsible for generating information, have the choice about how it shall be used (in auctions or not). To give the choice to the free riding second bidders just decreases the returns to investors in information.

45. Cf. Levmore, *Securities and Secrets: Insider Trading and the Law of Contracts*, 68 VA. L. REV. 117, 132-44 (1982) (discussing how giving information-generators property rights may be beneficial to society even if not to their trading partners).

46. *Edgar v. MITE Corp.*, 102 S. Ct. 2629, 2642 (1982).

47. See S. BREYER, REGULATION AND ITS REFORM 144 (1982).