

THE SOLE OWNER STANDARD FOR TAKEOVER POLICY

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In a number of papers published over the last five years, I have put forward a standard of evaluation—and thus also an objective—for the legal arrangements that govern corporate acquisitions.¹ This standard, which I termed the “undistorted choice” standard, might also be appropriately referred to as the “sole owner” standard. The standard was proposed for all acquisitions of targets with dispersed ownership. According to the standard, a corporation should be acquired if and only if its

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¹ The standard was developed and put forward in the following six papers: Lucian A. Bebchuk, *The Case for Facilitating Competing Tender Offers*, 95 *Harv. L. Rev.* 1028 (1982) [hereinafter *Case for Auctions I*]; Lucian A. Bebchuk, *The Case for Facilitating Competing Tender Offers: A Reply and Extension*, 35 *Stan. L. Rev.* 23 (1982) [hereinafter *Case for Auctions II*]; Lucian A. Bebchuk, *Toward Undistorted Choice and Equal Treatment in Corporate Takeovers*, 98 *Harv. L. Rev.* 1695 (1985) [hereinafter *Undistorted Choice*]; Lucian A. Bebchuk, *The Case for Facilitating Tender Offers: A Last (?) Reply*, 2 *J. L. Econ. & Org.* 253 (1986) [hereinafter *Case for Auctions III*]; Lucian A. Bebchuk, *The Pressure to Tender: An Analysis and a Proposed Remedy*, forthcoming in *Knight Raiders and Targets: The Impact of the Hostile Takeover* (John C. Coffee, Louis Lowenstein, & Susan Rose-Ackerman eds., Oxford University Press 1987) and in 12 *Del. J. Corp. L.* (1987) [hereinafter *Pressure to Tender*]; Lucian A. Bebchuk, *A Model of the Outcome of Takeover Bids* (Discussion Paper No. 11, Harvard Law School, Program in Law and Economics Nov. 1985) [hereinafter *Model of Bids*]. The first paper, *Case for Auctions I*, focused on a subset of the acquisition rules suggested by the sole owner approach: the rules facilitating takeover auctions. *Case for Auctions II* and *Case for Auctions III* responded to objections and reactions to that paper’s analysis. *Undistorted Choice* developed the approach taken in the first paper to a general approach for corporate acquisitions. This long paper presented a detailed discussion of the sole owner standard, the efficiency basis for supporting the standard, and the standard’s main implications for takeover rules. The gist of this paper’s analysis was summarized in *Pressure to Tender* and was presented in the form of a mathematical model in *Model of Bids*. These six papers are the basis for a book on the economics and law of corporate acquisitions on which I am now at work.

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shareholders judge the offered acquisition price to be higher than the target's independent value.²

The term "sole owner" is appropriately attached to the standard because the objective underlying it is to establish in the corporate acquisition context a mechanism that parallels the one operating in the sole owner context. Because the law conditions the acquisition of a sole owner's assets on his consent, such an acquisition would take place if and only if the owner views the offered price as higher than the value to himself of retaining his assets. According to the proposed standard, the dispersed shareholders of a target should be able to follow the same course of action that a sole owner would.

In support of the proposed standard, I presented an efficiency analysis. Ensuring that acquisitions occur in accordance with the standard, I suggested, would contribute much to the efficient operation of the market for corporate assets. Such a regime would secure the efficient outcome of acquisition attempts and would provide appropriate incentives to investment in given companies.

Having put forward this standard, I also identified a set of arrangements (described in Section II below) that are necessary to ensure compliance with it. One part of the set of desirable arrangements concerns the behavior of bidders. Without any restrictions on the bidding process, the tender decisions of shareholders would be distorted, and the shareholders might be pressured into accepting an offer whose rejection they view as value maximizing. Therefore, it is desirable to provide shareholders with a delay period and with a certain vote-like mechanism that would enable them to express and follow their preferences concerning an acquisition. Another part of the set of desirable arrangements concerns the behavior of target managements. Without any restrictions on their behavior, managers might obstruct offers whose acceptance would be value maximizing. Therefore, it is desirable to prohibit managerial obstructive or defensive tactics. The set of arrangements that I identified as suggested by the proposed standard overlaps in part and diverges in part from the existing body of takeover rules. Thus, the standard provides a basis for endorsing some aspects of the existing law (for example, the delay period provided

² If the target's shareholders differ in their judgment, then, according to the proposed standard, the judgment of the majority should be followed. A majority of the shareholders here means a group of shareholders who together hold a majority of the target's shares. The reasons for choosing a majority as the decisive fraction are discussed in *Undistorted Choice*, *supra* note 1, at 1774-75. Because the choice of the decisive fraction is not central to my thesis, and because it is in any event not relevant to the issues discussed in this paper, I will abstract from it; to this end, I shall assume throughout that a given target's shareholders generally have the same judgment concerning how the acquisition price compares with the target's independent value.

by the Williams Act and some elements of the control share acquisition statutes adopted by some states) as well as for criticizing some other aspects of that law (for example, the law's tolerance with respect to managerial defensive tactics).

In this paper, I respond to Alan Schwartz's critical analysis of the sole owner standard and its implications.³ In the course of his systematic and stimulating analysis, Schwartz makes many interesting and provocative points. Below I attempt to address all of his main claims. The paper has two sections, which parallel the two parts of Schwartz's analysis. Section I deals with Schwartz's claim that the sole owner standard is inferior to an alternative "market standard." Section II addresses Schwartz's assertion that, in any event, the takeover rules that would best serve the sole owner standard are different from those put forward by the standard's advocates.

I. THE CASE FOR THE SOLE OWNER STANDARD

Schwartz argues that the sole owner standard is inferior to what he terms the market standard. According to the market standard, a target corporation should be acquired if and only if the expected acquisition price exceeds the prebid market price of the target's shares. This approach was previously advocated by Easterbrook and Fischel,⁴ and Schwartz seeks to strengthen the case for it.

A. *Some Questions to Supporters of the Market Standard*

Before proceeding to examine the merits of the market standard, I would like to raise some questions that Schwartz and other supporters of this standard should, in my view, ask themselves. Addressing these questions, I think, would lead supporters of the market standard to question and reconsider their own commitment to the standard.

The conviction of the market standard's supporters, I believe, is at least partly due to their "free-market" intuition. They are attracted by the fact that, in the takeover context, the market standard suggests less regulatory intervention than the sole owner standard. The logic of the market standard, however, has in other contexts strong regulatory implications (strong, that is, relative to the arrangements suggested by the sole owner standard). Thus, a supporter of the market standard should ask himself

³ See Alan Schwartz, *The Fairness of Tender Offer Prices in Utilitarian Theory*, in this issue, at 165.

⁴ See Frank H. Easterbrook & Daniel R. Fischel, *The Proper Role of a Target's Management in Responding to a Tender Offer*, 94 Harv. L. Rev. 1161 (1981); Frank H. Easterbrook & Daniel R. Fischel, *Auctions and Sunk Costs in Tender Offers*, 35 Stan. L. Rev. 1 (1982).

whether he is prepared not only to embrace the standard's antiregulatory implications for takeover law but also to accept its other regulatory implications, which I now turn to.

1. Corporate Taking

Supporters of the market standard for corporate acquisitions have focused their attention on takeovers. They have advocated that takeovers be made as easy as possible. What they have clearly ignored, however, is that takeovers are not the only possible way of acquiring corporations. Indeed, facilitating the success of tender offers seems a rather roundabout and imperfect way of implementing the market standard—that is, of ensuring that targets are acquired if and only if the acquisition consideration exceeds the preacquisition price of the target's shares. The most natural and effective way of implementing the market standard is through adopting a rule of "corporate taking."

According to the possible rule of corporate taking, a buyer could at any given time "take" the assets (or shares) of a given corporation by paying a price containing a specified, minimal premium above the preceding market price of the target's shares. Technically, the rule could be implemented through the following simple procedure. At any given time, a buyer could turn to any corporation covered by the rule and provide it with the specified acquisition price. The specified acquisition price would be equal to the number of the target's shares multiplied by the target's stock price on the preceding day (or, say, in the preceding week or two weeks) plus a certain minimal, specified premium (say, 1 percent of the total value). The buyer would thereupon become the owner of all of the target's shares, and the acquisition price would be divided (pro rata) among the target's shareholders. No shareholder consent or action would be required.

Almost by definition, the above corporate taking rule would automatically ensure perfect compliance with the market standard. Schwartz and other supporters of this standard should therefore ask themselves whether they would advocate this rule. If they would not, then they should reconsider their position on using the market standard in designing takeover law.

2. Charter Provisions

Because of their free-market intuition, supporters of the market standard are reluctant to restrict the freedom of shareholders to adopt charter provisions. Thus, for example, although Schwartz opposes any regulatory arrangement that would work to provide target shareholders with more

than a minimal premium, he is not ready at this stage to prohibit target shareholders from adopting the same arrangement through a charter provision.⁵

This position concerning charter provisions is inconsistent with the market standard, for according to this standard it is desirable that targets could be acquired for a minimal premium above the prebid price. In advocating this standard, Schwartz recognized that target shareholders have a *private* interest in getting a higher premium. But, he argued, providing them with more than a minimal premium will create no social benefit and will indeed produce a social loss by preventing some efficient acquisitions. This argument against more-than-minimal premiums in no way depends on whether such premiums would result from a regulatory arrangement or from an arrangement adopted through a charter provision. Therefore, prohibiting all antitakeover charter provisions is a corollary of the market standard, and unwillingness to endorse such prohibition would represent reluctance to accept the full implications of this standard.

3. Acquisitions from Sole Owners

Easterbrook, Fischel, and Schwartz are all strong supporters, in the sole owner context, of property rights. They believe in the efficiency of a market in sole owners' assets in which owners have the power to accept or reject acquisition offers. Schwartz, for example, thinks that enabling companies freely to reject offers to purchase a division of theirs would result in an efficient allocation of divisions.⁶ The question that Schwartz must therefore ask himself is whether his position concerning the market for sole owners' assets is consistent with his position concerning the market for corporations.

One difference, noted by Schwartz, between some sole owner situations and the corporate context is that some sole owners attach to their assets a sentimental, noneconomic value.⁷ But there is clearly also a large set of sole owner situations where the sole owner attaches only an economic value to his assets. Consider a factory that has a sole owner—a business person, or a corporation with many other assets—that is solely interested in maximizing the monetary value of the factory (or the earnings stream that it produces). I take it that Schwartz would support enabling this factory's sole owner to reject acquisition offers. Why, then,

⁵ See Schwartz, *supra* note 3, at 169.

⁶ See Schwartz, *supra* note 3, at 192–94.

⁷ See Schwartz, *supra* note 3, at 188.

would Schwartz have a totally different position if the same factory were held by a corporation with no other assets and with dispersed ownership?

The only reason given by Schwartz for making such a distinction between these two cases has to do with the availability of information about the value of the factory to its present owner(s).⁸ If the factory is held by a corporation with no other assets and with dispersed ownership, Schwartz reasons, then the value of the factory to its present owners will be accurately represented by the market price of the corporation's shares. In contrast, no such accurate, publicly available estimate will be present if the factory has a sole owner.

Below I question whether the prebid price of a target's shares is indeed such a perfect estimate of the target's independent value. But be that as it may, the important point here is that the quality of the available estimate of assets' value is not a black and white issue. Consequently, the logic of Schwartz's position concerning takeover policy should also lead him, in some sole owner situations, to favor restrictions on the owners' freedom to reject acquisition offers.

Consider, for example, the class of assets whose value to their present owners can be "reasonably" estimated—in other words, estimated with a certain limited degree of error—by public officials. For these assets Schwartz should support a "taking" rule with the following structure. According to the taking rule, anyone could acquire (or "take") a sole owner's asset by paying the owner an acquisition price that can be shown by the buyer (say, with a certain degree of confidence) to exceed by a specified premium (say, 30 percent) the economic value of the asset to its owner.

It seems to me that Schwartz, as well as Easterbrook and Fischel, would be reluctant to accept such a taking rule. As they explicate the reasons for this reluctance, they would likely find that these reasons are also applicable in the takeover context. For example, a main reason that is often given in support of property rights is that providing owners with a fraction of the gains produced when their assets are acquired is necessary to provide owners with appropriate incentives for *ex ante* investment in their assets. But if Easterbrook, Fischel or Schwartz advance this argument, they would no longer be able to ignore the fact that the takeover

⁸ Another reason that Schwartz could give, but did not, has to do with the search issue. Arguably it is more important to encourage potential buyers' search in the case of assets owned by a dispersed group than in the case of assets with a sole owner. I discuss the search issue briefly below, see *infra* Section ID, and in detail in my earlier work, see *Case for Auctions I*, at 1034–48; *Case for Auctions II*, at 30–39; *Case for Auctions III*, at 254–63; *supra* note 1. In this response to Schwartz, I devote little attention to the search issue because Schwartz chose to abstract from it.

policy proposed by them would produce inefficient *ex ante* investment decisions (an issue that is discussed in Section IC below). Whichever argument Easterbrook, Fischel, and Schwartz use to justify their reluctance to adopt some version of the taking rule, they would likely have to reconsider the normative standard that they advocate for takeover policy.

Thus far I have considered the implications that the market standard, proposed as a basis for takeover policy, has for contexts other than takeovers. I now wish to turn to takeovers. In comparing the sole owner standard with the market standard, I will consider below the three important effects that takeover policy has on the outcome of bids, on the investment levels in given companies, and on the search for information leading to acquisitions.

B. Outcome of Bids

1. The Issues

In advocating the market standard, Schwartz's analysis concentrates on the effect that takeover policy has on the outcome of bids and thus on the allocation of target assets. From the perspective of efficiency, it is desirable that a bid succeed if and only if the acquisition would put the target's assets to a more efficient, valuable use. Let us denote by W the value of the target's assets in the bidder's hands, and by V the value of the target's assets under independent existence. From the perspective of efficiency, the acquisition is desirable if and only if $V < W$.⁹

Thus, it follows that to ensure efficient outcome of bids, a takeover policy should accomplish two things. First, the policy should prevent any inefficient acquisition—that is, any acquisition where $V > W$. Second, the policy should facilitate any efficient acquisition—that is, any acquisition where $V < W$.

The problem with the sole owner standard, and the reason why Schwartz objects to it, is that it might sometimes prevent an efficient acquisition. Consider a situation in which $V < W$ and in which an acquisition would thus be efficient. The buyer offers some acquisition price P , where presumably $P < W$. Even though the acquisition would be efficient, the owner(s) might reject the price P , insist on receiving a larger fraction of the acquisition gains, and hope that the buyer will raise its offer. While the buyer might indeed raise its offer, it might also walk away because of strategic or transaction cost considerations. Thus, the potential acquisi-

⁹ It is assumed for simplicity that the acquisition would be undesirable if $V = W$. Nothing in the analysis below turns on this assumption; its conclusions would be all the same under the opposite assumption.

tion gains of $(W - V)$ might be lost because of such “bargaining failure.” Such a possibility exists whenever owners have the power to reject offers—whether in the corporate context or in the sole owner context.

Now, Schwartz thinks that this bargaining failure problem is not all that substantial; more generally, he believes that, in buyer-seller situations, bargaining failure only rarely prevents the realization of potential acquisition gains.¹⁰ Nonetheless, this problem leads him to view the market standard as superior to the sole owner standard. The market standard does not suffer from this problem, for it would not enable shareholders to insist on or seek a larger fraction of the acquisition gains. While Schwartz does not think that this advantage of the market standard is substantial, he views it as sufficient basis for preferring this standard because he does not see any offsetting advantage to the sole owner standard. For in Schwartz’s view—and this is important—both standards perform perfectly well in preventing all inefficient acquisitions.

Before proceeding, it is worth noting two implications of Schwartz’s belief that the bargaining failure problem is not all that substantial. First, even on his view, following the sole owner standard would not result in a large efficiency loss (though it would result in some loss). Second, Schwartz should reverse his position that the market standard is superior if he finds that the sole owner standard enjoys, on some other dimension, a significant advantage over the market standard.

The point Schwartz misses is that the market standard is significantly inferior to the sole owner standard in preventing inefficient acquisitions—that is, acquisitions where $V > W$. Schwartz incorrectly believes that the market standard would prevent all such inefficient acquisitions. This belief is based on Schwartz’s claim that V is best represented by the prebid market price of the target’s shares. Given this proposition, whenever the offered acquisition price exceeds the prebid market price, the acquisition price—and hence also W , as the bidder will presumably offer to pay less than W —will exceed V , and the acquisition would be efficient.

Schwartz justifies his critical proposition—that, for the purpose of identifying the efficient outcome of a bid, V is best represented by the prebid market price of the target’s shares—by asserting that it follows from the semistrong version of the efficient market hypothesis.¹¹ As explained below, however, this justification is inadequate because (i) Schwartz’s proposition does not follow from semistrong efficiency of the capital markets, and (ii) in any event, relying on the hypothesis of semistrong efficiency in designing takeover policy is risky.

¹⁰ See Schwartz, *supra* note 3, at 194.

¹¹ See Schwartz, *supra* note 3, at 190.

2. Schwartz's Proposition Does Not Follow from Semistrong Market Efficiency

It is necessary to start with a brief comment on the concept of market efficiency.¹² To say that the market is efficient with respect to a certain piece of information is to say that prices fully reflect this piece of information—that is, no one can make abnormal returns by trading on the basis of this piece of information. Thus, market efficiency is always defined with respect to a given information set: the market might be efficient with respect to one set of information but not with respect to another. Accordingly, there are different versions of the efficient market hypothesis. The semistrong version, on which Schwartz relies, holds that market prices fully reflect all publicly available information.

Let us suppose for now that the market is indeed characterized by semistrong efficiency. Does it follow, as Schwartz believes, that, for the purpose of identifying the efficient outcome of a bid, V is best represented by the target's prebid stock price? All that follows from the semistrong efficiency is that the prebid price fully reflected all the information that was publicly available at the last prebid trading time. But it is quite possible that, at the time investors make their tender decisions, the best estimate of V available to them might significantly differ from the prebid market price; for a lot of new information might be revealed between the last prebid trading time and the time of shareholders' tender decisions.

Investors' estimates of the value of their assets are dynamic and ever-changing. Such estimates are being continuously revised as novel information about the assets and the world is continuously revealed. In the case of a takeover target, the time following the last prebid trading time represents an especially dramatic period in the company's life, a period in which a lot of new information about the target's value is likely to be generated.

One source of such new information is the constant searches conducted by financial analysts, arbitrageurs, and other market participants. A bid attracts the investment community's attention, and intensified investigations by market participants are likely to unearth a wealth of new information concerning the target.

Disclosures and proposals made by the target's management following the making of the bid are another important source of new information. Management might disclose facts, previously unknown to the investing public, that bear on the value of the target's assets and on their future

¹² For a detailed discussion of the concept, see Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 *J. Finance* 383 (1970); Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 *Va. L. Rev.* 549 (1984).

earnings prospects. Furthermore, management might disclose a new plan or proposal for the target's future. Such proposals and plans might have been formulated as a direct response to the bid, or they might have been formulated earlier but were revealed in response to it. Management might, for example, put forward a plan for a financial or economic restructuring of the target,¹³ and such a plan might lead investors to revise significantly their estimates of the target's value.

Finally, an important source of new information is the inferences that investors might draw from the very making of the bid and from its terms. In particular, investors might conclude that the bid was motivated by the bidder's private information that the target had been undervalued, and they might consequently revise upwards their estimates of V .

The possibility that a bid is motivated by the bidder's private information about the target's undervaluation is perfectly consistent with semistrong efficiency. Semistrong efficiency implies only that the prebid price reflected all public information available at that time and that one could not make a profit by trading on the basis of such information. It is thus consistent with (semistrong) market efficiency that parties would be able to "beat" the market on the basis of private information.

Indeed, a central element of the picture portrayed by efficient market theory is the constant search by market participants for private information. While private information eventually does become incorporated in market prices, one who possesses it is in the meantime able to make gains. Indeed, if such gains could not be made, then there would be no incentive to look for information in the first place, and there would be little or no information acquisition.¹⁴ One main way to gain from having private information about a company's undervaluation is to make market purchases of the company's shares. Another potential way to gain is to acquire the target through a tender offer at less than the target's true value. Whether or not such tender offers are common at present, there can be no doubt that they would be very common under the regime advocated by supporters of the market standard.

In sum, it is perfectly consistent with semistrong market efficiency that, between the last prebid trading time and the time of shareholders' tender decisions, the target's shareholders would receive a substantial amount of novel information about V , the target's independent value. Because most of this novel information is likely to be in the nature of "good news," the

¹³ See, for example, *Zellerbach Rejects Goldsmith's Offer*, N.Y. Times, April 12, 1985, at D5, col. 1 (major restructuring proposed by Zellerbach's management in response to Goldsmith's offer).

¹⁴ This widely recognized point was first formally demonstrated in Sanford J. Grossman & Joseph E. Stiglitz, *On the Impossibility of Informationally Efficient Markets*, 70 Am. Econ. Rev. 393 (1980).

estimate of V that shareholders have at the time of their tender decisions is likely to be higher than the prebid market price. Therefore, the fact that the offered acquisition price exceeds the prebid price in no way implies that the offered price also exceeds the best estimate of V available when the outcome of the bid is determined. It follows that the market standard would enable some inefficient acquisitions that the sole owner standard would prevent.

3. Semistrong Efficiency as the Basis for Takeover Policy

Thus far I have assumed that the market is characterized by perfect semistrong efficiency, and that a target's prebid stock price therefore fully reflects all the information publicly available at the time. Schwartz asserts that "enough data in support of [semistrong efficiency] exists to make it a plausible assumption for policy analysis."¹⁵ But, as explained below, at the current state of knowledge, an unqualified reliance on semistrong efficiency in designing takeover policy is risky.

The proposition that American stock markets are (semistrong) efficient is generally put forward as an empirical proposition. Such efficiency cannot be derived from economic theory. Indeed, as already noted, theory suggests that the market cannot be perfectly efficient: if prices fully reflected, at any given moment, all public information, then there would be no incentive for any economic agent to pay attention to, and assess, such information. As to the question of how close (or far) the market is to efficiency, theory can only provide us with a description of some mechanisms that might be at work pushing prices toward their efficient levels.¹⁶ But how well these mechanisms work on the whole cannot be decided on the basis of theory; it can be established only by the empirical evidence.

The available evidence is not all supportive of the semistrong efficiency hypothesis. To be sure, many studies found that certain pieces of information are quickly reflected in market prices on becoming public.¹⁷ But then there is also conflicting evidence; for example, some studies found that certain pieces of public information are not fully and quickly reflected in market prices,¹⁸ and some studies questioned whether the observed volatility of market prices is consistent with the efficiency hypothesis.¹⁹ Overall, the amount of empirical work that is being done on market efficiency,

¹⁵ See Schwartz, *supra* note 3, at 190.

¹⁶ For a description of these mechanisms, see Gilson & Kraakman, *supra* note 12.

¹⁷ For a review of some such studies, see Fama, *supra* note 12.

¹⁸ See, for example, Michael C. Jensen, Some Anomalous Evidence Regarding Market Efficiency, 6 J. Fin. Econ. 95 (1978).

¹⁹ See, for example, Robert J. Shiller, Do Stock Prices Move Too Much to be Justified by Subsequent Changes in Dividends? 71 Am. Econ. Rev. 421 (1981).

and the intensity of the debate among economists, suggest that the question is far from settled.²⁰ It might be some time before we can know with great confidence the extent to which, and the qualifications with which, the market is semistrong efficient.

Moreover, I wish to emphasize that special caution is called for before we rely on market efficiency in designing takeover policy. Different levels of empirical support are necessary for different uses of semistrong efficiency in policy discussions. Schwartz's use of the hypothesis of semistrong efficiency requires that this hypothesis hold in an especially unqualified manner.

First, Schwartz's use of the hypothesis requires that prices be close to their efficient levels in an especially general and tight way. As already noted, since theory rules out the possibility that the market is perfectly efficient, the efficiency hypothesis asserts only that, overall, the market is close to the efficient state. Suppose, for example, that the evidence indicates that at any given time the stock prices of 99 percent of existing companies fully reflect all public information. Then, for the purpose of some policy discussions—say, discussions focusing on the adequacy of the signals sent by the capital markets to investment in given industries—it would be correct to assume that semistrong efficiency holds. But it would be incorrect to rely on such an assumption, as Schwartz does, in considering takeover motives and takeover policy; for it would be reasonable to presume that, among takeover targets, there is a disproportionate representation to the 1 percent of companies whose stock prices do not fully reflect all public information.

Second, Schwartz's use of semistrong efficiency requires that this hypothesis be valid for every type of public information, without exceptions. As already noted, the concept of market efficiency is defined with respect to a certain set of information; the market might be efficient with respect to a certain set of information but not with respect to another set. Thus, it is quite possible that, as evidence is accumulated, we will conclude that some types of public information, or even most types, are fully reflected in prices, but that there are exceptions—particular types of information that are not fully reflected in prices.

Now, the direct tests of semistrong efficiency that have been conducted thus far have generally concerned "hard information," that is, information whose existence can be verified by the researcher conducting the test

²⁰ For recent contributions to the ongoing debate, see, for example, Robert Merton, On the Current State of the Stock Market Rationality Hypothesis, in *Macroeconomics and Finance: Essays in Honor of Franco Modigliani* (Stanley F. Fischer, Rudiger Dornbusch, & John Bossons eds., 1987); Robert J. Shiller, Fashions, Fads and Bubbles, in *Knight Raiders and Targets: The Impact of the Hostile Takeover*, *supra* note 1.

in an objective, indisputable way. An example of hard information is information that company X announced a dividend raise. To test whether, for instance, announcements of dividend raise are reflected in market prices, a researcher would use the following strategy. The researcher would look at past announcements and past prices and seek to determine whether it would have been possible to profit by trading on the basis of announcements of dividend raises.

In contrast, there has been no direct testing of the extent to which prices reflect public information that is "soft," that is, information about features, attributes, and so on, the existence of which cannot be objectively verified by a researcher. One example of soft information is information that the quality of a company's management has changed. The strategy of direct testing used for hard information clearly cannot be applied in the case of soft information. Suppose that a researcher seeks to determine whether past prices of companies quickly reflected new public information about changes in the quality of management. To do this, the researcher would have to identify the instances in which changes in the quality of management were observed. But of course there is no objective procedure for determining whether a change in management quality takes place or is observed; this is a matter on which there is always room for reasonable disagreement.

Now, some uses of semistrong efficiency in policy discussions require only that all hard public information be reflected in prices. But that is not sufficient for the use that Schwartz wishes to make. Schwartz relies on the market's hypothesized efficiency to assume that a target's stock price fully reflects all information publicly available at the time about the target's value. Clearly, various pieces of soft information are critical to assessing a target's value. Thus, one cannot assume that the prebid price reflects all relevant public information unless one has a basis for assuming that all soft public information is generally reflected in prices.

In sum, the existing evidence does not establish, certainly not with a significant degree of confidence, the proposition that the prebid price of all takeover targets fully reflects all information publicly available at the time, hard and soft. The evidence does not rule out this proposition, and some observers might even view the evidence as supportive. But the evidence does leave us with the nontrivial chance that the proposition does not hold or holds only with important exceptions and qualifications. This possibility should not be ignored in designing takeover policy.

This possibility, and the previously established point that much new information is revealed between the prebid time and the time of shareholders' tender decisions, both suggest that the shareholders' estimate of the target's value might exceed the target's prebid price. It follows that

the market standard might fail to prevent some inefficient acquisitions that the sole owner standard would avoid. This conclusion should lead Schwartz to accept that the sole owner standard is superior to the market standard in bringing us close to securing efficient outcome of bids.

C. *Investment in Given Companies*

The sole owner standard would perform better than the market standard not only in attaining efficient outcome of bids, but also in providing incentives to investment decisions. This superior effect on investment decisions is due to the fact that the sole owner standard, by providing target shareholders with a substantial fraction of the produced acquisition gains, enables investors to capture social gains that result from their investment. The issue of incentives to investment, which I discussed in detail in my earlier articles,²¹ is unfortunately ignored in Schwartz's analysis.

The importance of providing parties with the social benefits produced by their investment, in order to give them appropriate incentives to invest, is stressed in many policy discussions. For example, when property rights are discussed, it is often suggested that protecting property rights is necessary to provide owners with incentives to invest in their assets in the first place. A similar emphasis is found in policy discussions on the value of accurate capital market prices. Such accurate pricing is prized mainly because it provides incentives to efficient investment in given companies and lines of industry.

The same principle, that it is desirable to provide investors with the social benefits of their investment decisions, carries over to the takeover context. The gains that result from an acquisition are attributable not only to the bidder's actions; they are also attributable to individuals' prior decisions to establish, and invest in, the target. Thus, for such decisions to be socially optimal, the target's shareholders must capture the social benefits produced by their investment. Unlike the market standard, the sole owner standard would provide shareholders with a substantial fraction of the acquisition gains that are attributable to the target's existence. Thus, the sole owner standard would move us closer to attaining optimal levels of investment in given companies.

Consider the example of a high-tech company that is developing a new product and, if successful, is likely to be acquired by a larger concern because of the synergistic benefits of such a combination. In comparison to the sole owner standard, the market standard would substantially de-

²¹ See Case for Auctions I, at 1049; Case for Auctions II, at 42-44; Case for Auctions III, at 268-69; Undistorted Choice, at 1766; *supra* note 1.

crease the premium that the company's initial investors can expect in a future acquisition of their company. Consequently, because the initial investors would not expect to capture the full social value of their company's potential for producing synergistic gains, the investment in the company would be suboptimal.²²

D. Information Acquisition

The effect of takeover policy on the search for information leading to acquisitions is an important issue, which I discuss in much detail in my earlier work.²³ In this response to Schwartz, however, I will not devote much attention to this issue, because Schwartz chooses to abstract from it.²⁴ Schwartz only asserts that the search factor clearly favors the market standard, and that consequently the burden of persuasion should be on supporters of the sole owner standard.²⁵ As explained below, however, this assertion of Schwartz is incorrect: the search issue is not clearly in favor of the market standard, and it therefore does not create a presumption in this standard's favor.

²² Note that the sole owner regime would not provide target shareholders with all the produced acquisition gains. This observation is important because acquisition gains might also be at least partly attributable to the existence of the acquirer. As explained below, the sole owner regime would also provide acquirers with a substantial fraction of the acquisition gains that are attributable to the acquirer's existence. In the sole owner regime, the gains produced by an acquisition would be divided in the following way. If there is an element of the gains for which only the target is unique and thus essential—that is, an element that could be produced by an acquisition of the target by any one of several potential buyers—then the target would capture this element in full. Similarly, if there is any element of gains for which only the acquirer is unique and thus essential—that is, an element that could be realized by the acquirer's purchase of any one of several potential targets—then the acquirer would capture this element in full. If there is an element of the gains for which both the buyer and the target are essential, then this element would be split between them. Thus, each of the two parties would fully capture that element of the gains for which it alone is essential and would share in that element of the gains for which both are essential. Therefore, the sole owner regime would provide substantial incentives to invest in both potential targets and acquirers. To be sure, as long as there is an element for which both parties are jointly essential, then neither the sole owner regime, nor any other regime, would be able to provide first-best, fully optimal incentives to invest. (Full optimality would be obtained only if both parties could capture the joint element of gains in full, which of course is not feasible.) But the division of gains produced by the sole owner regime would in all likelihood bring us much closer to optimal investment levels than the market standard regime. Finally, note that the gains produced by acquisitions might be attributable not only to the existence of the target and/or the acquirer but also to their decisions to look for the other side. Thus, it is desirable that the divisions of acquisitions gains also provide incentives for such search, which is the subject of Section ID.

²³ See Case for Auctions I, at 1034–41, 1047–48; Case for Auctions II, at 30–39; Case for Auctions III, at 255–63; Undistorted Choice, at 1776–78; *supra* note 1.

²⁴ See Schwartz, *supra* note 3, at 169.

²⁵ See Schwartz, *supra* note 3, at 192.

1. Search by Acquirers

The information acquisition issue favors a market standard regime, Schwartz believes, because such a regime would lower takeover premiums and thus encourage prospective acquirers' search. But what Schwartz ignores is that this effect need not be desirable. As I have shown in my earlier work, the sole owner regime is perfectly consistent with providing substantial incentives to acquirers' search (relative to search costs) and thus with inducing a substantial level of such search.²⁶ To be sure, the level of acquirers' search in a sole owner regime might still be suboptimal. But the higher level of acquirers' search that would be induced by the market standard regime would be excessive.

Like any other potentially beneficial activity, the acquirers' search is desirable only up to some point. No one, presumably, would want to have half of the country's work force engaged in a search for takeover targets. Specifically, a search is socially desirable only up to the point where its marginal social cost starts to exceed its marginal social benefit. Consequently, a socially optimal level of search would be induced only if searchers expect to receive exactly—no less but also no more than—the social benefits of their activity.

Under the market standard regime, where searchers would be able to acquire targets for a minimal premium, searchers would capture the full efficiency gains produced by the acquisitions resulting from their search. So far, so good. But searchers would also make some substantial private gains that would not fully reflect social gains. Most importantly, searchers would make substantial gains from foreknowledge-motivated takeovers, that is, takeovers motivated by the searchers' possession of private information suggesting that the target is currently undervalued. After a searcher identifies an undervalued target, it would be able to capture the full gap between the target's true value and its prebid market value. Consequently, searchers would invest vast and excessive resources in foreknowledge-motivated search, that is, search for private information about companies' undervaluation.

To be sure, foreknowledge-motivated search is not entirely devoid of social value. Such search might lead the market to correct its valuation of an identified target. While such adjustment would eventually occur anyway, accelerating it is socially beneficial. But the critical point is that the social value of such adjustment is substantially smaller than the amount of the undervaluation. Suppose, for example, that a searcher identifies a target that is undervalued by \$1 billion, captures this gap as a profit, and in

²⁶ See Case for Auctions I, at 1034–38, Case for Auctions II, at 31–33; Case for Auctions III, at 255–56; *supra* note 1.

the process fully corrects the market's valuation of the target's assets. Surely the social value of this correction would be much less than \$1 billion; for \$1 billion would be the social value of an acquisition that would raise the target's real value by \$1 billion (rather than merely alert the market to the existence of such a value).

Finally, note that, as is desirable, the sole owner regime would discourage foreknowledge-motivated search much more than it would discourage search for targets the acquisition of which would produce efficiency gains. Under that regime, when a buyer identifies a target the acquisition of which would produce efficiency gains, the acquisition would usually take place, and the buyer would generally capture a significant fraction of the efficiency gains produced. In contrast, when a searcher identifies an undervalued target, it would usually make some profitable market purchases of the target's shares, but it would likely be unable to acquire the target as a whole at a price below its true independent value.

2. Search by Targets

Even assuming that, in comparison to the sole owner regime, the market standard regime would have some desirable overall effect on acquirers' search, this effect might be outweighed by the regime's undesirable effect on search by potential targets. Corporate acquisitions result not only from search by potential buyers for a target but also from search by potential sellers for a buyer. If acquisition of a company can produce efficiency gains, its management might look for a buyer and try to negotiate an acquisition.

Now, the market standard regime would sharply curtail premiums not only in hostile takeovers but also in negotiated acquisitions. Because all premiums would be curtailed, the regime would practically eliminate potential targets' incentives to search and would thus greatly decrease the number of seller-initiated beneficial acquisitions. This reduction would be clearly undesirable, because target search is presumably never motivated by an undervaluation of the target's stock.

II. THE RULES SUGGESTED BY THE SOLE OWNER STANDARD

Thus far I have addressed Schwartz's opposition to the sole owner standard. But Schwartz also argues that, in any event, the advocates of the standard have failed to identify the rules that would best implement their ideal.²⁷ In this section, I therefore assume that the sole owner stan-

²⁷ See Schwartz, *supra* note 3, at 168-70, 170-86.

dard has been accepted, and I consider Schwartz's arguments concerning the rules suggested by the standard.

In examining this issue, it will be helpful to divide the body of takeover rules between those rules that govern targets (discussed in Section IIA) and those that govern bidders (discussed in Section IIB). It will also be helpful to restate the sole owner standard. According to the standard, as defined earlier, an offer's success should depend on whether the offer has shareholder support—that is, on whether the target's shareholders view the offered price as exceeding the independent target's value. Thus, using the concept of shareholder support, the standard may be restated as requiring that shareholder support be both a necessary condition and a sufficient condition for the success of an offer. As explained below, the rules concerning targets should be designed to ensure that shareholder support be sufficient for an acquisition, while the rules concerning bidders should be designed to ensure that shareholder support be necessary for an acquisition.

Before proceeding, it is worth commenting on the appropriate role of the law, if any, in ensuring outcomes consistent with the sole owner standard. After all, while my case for the standard is based on efficiency considerations, implementing the standard is not only in society's interest but also in the interest of target shareholders. Therefore, it might be argued that, once we identify the arrangements necessary to implement the standard, we should not prescribe them by law but rather leave them to private adoption through appropriate charter provisions. In my earlier work, however, I presented reasons calling for adoption through law: most importantly, certain elements of state corporate law and of the stock exchanges' policies pose substantial impediments to private adoption of the arrangements that are optimal for implementing the sole owner standard;²⁸ in addition, adoption by law enjoys certain economies and transaction-cost advantages.²⁹ But, in any event, the choice between adoption by law and by charter is not all that relevant to the discussion below, for the focus of this section's discussion will be the substantive content of the arrangements suggested by the sole owner standard.

A. Rules Concerning Targets

Schwartz says that the sole owner standard would be served by prohibiting target managers from employing obstructing defensive tactics. He views this proposition as one that adherents of this standard would find

²⁸ See *Pressure to Tender*, *supra* note 1, Section III(A)(4).

²⁹ See *Undistorted Choice*, *supra* note 1, at 1755–56.

“surprising.”³⁰ I perfectly agree with Schwartz on the substantive proposition that the sole owner standard implies a ban on obstructing tactics. But what I find surprising is his view that this conclusion should come as a surprise. Already in the exchange with Easterbrook and Fischel five years ago, I emphasized that, while their market standard differed significantly from the sole owner standard, both standards require that obstructing tactics be prohibited.³¹ I have emphasized this position in each of the papers that I have subsequently written to put forward the sole owner approach.³²

That the sole owner standard requires a ban on obstructing tactics can be shown in the following way. As just noted, according to this standard, shareholder support should be sufficient for the success of an acquisition offer. For shareholder support to be a sufficient condition, management must be denied the power to obstruct offers. Otherwise, management might sometimes use its obstructing power, for self-serving reasons, to prevent an acquisition that enjoys shareholder support.

Although the proposition that the sole owner standard suggests a ban on obstructing tactics is neither surprising nor novel, it is nonetheless one that is worth repeating. For one who accepts the sole owner standard might at first glance think that the standard favors obstructing tactics. An important part of the standard requires that shareholder support be necessary for an acquisition. But as will be presently discussed, because of the distortion of shareholders' tender decisions, there is basis for concern that undesirable acquisitions—acquisitions not enjoying shareholders' support—might take place. Providing management with the power to obstruct might be viewed as a way to address this concern or as an instrument of preventing such undesirable acquisitions. When shareholders might be pressured into accepting an offer the rejection of which would be value maximizing, then, it might be hoped, management will use its obstructing power to block the offer. Indeed, commentators and courts recently have been using such an argument with increasing frequency to justify the use of obstructing tactics.³³

³⁰ See Schwartz, *supra* note 3, at 184.

³¹ See Case for Auctions I, at 1054; Case for Auctions II, at 47; *supra* note 1.

³² See, for example, Undistorted Choice, *supra* note 1, at 1742–44.

³³ See, for example, Michael B. Bradley & Michael R. Rosenzweig, Defensive Stock Purchases, 99 Harv. L. Rev. 1377 (1986) (defending self-tenders); Jonathan M. Macey & Fred McChesney, A. Theoretical Analysis of Corporate Greenmail (defending greenmail) Yale L. J. (1983); Note, Protecting Shareholders Against Partial and Two-Tiered Takeovers: The Poison Pill Preferred, 97 Harv. L. Rev. 1964 (1977) (defending poison pills); Unocal Corp. v. Mesa Petroleum Co., 493 A. 2d 946 (Del. 1985) (permitting a discriminatory self-tender); Moran v. Household Int'l, Inc., 490 A. 2d 1059 (Del. Ch. 1985) (permitting a poison pill).

But a closer look indicates that allowing obstructing tactics is not the way to go about addressing the potential distortions of shareholder choice and preventing undesirable acquisitions. To start with, allowing managerial obstructions is a remedy with substantial costs and limited effectiveness: as noted, management might use its obstructing power to prevent acquisitions that do enjoy shareholder support; and, in any event, obstructing tactics cannot prevent all undesirable acquisitions. Moreover, while there might be disagreement as to how costly and imperfect this remedy is, there is actually no need to resolve this question. For, as explained below, there are certain arrangements concerning the bidding process that can address the distortions of shareholder choice—and prevent any undesirable acquisition—in a perfect way. Thus, in designing the rules governing targets, we should focus solely on ensuring that shareholder support be sufficient for an acquisition, and we should leave the task of ensuring that shareholder support be necessary for an acquisition to the rules concerning bidders.³⁴

B. Rules Concerning Bidders

In my earlier papers I have shown that, in the absence of restrictions on bidders' behavior, shareholders' tender decisions would be substantially distorted, and an offer could consequently succeed even if the shareholders view the offered price as lower than the independent target's value. Therefore, I suggested that bidder regulation is desirable to ensure that shareholder support be necessary for an acquisition.

Schwartz analyzes the factors that shape the results of the implicit "bargaining" between a target's shareholders and the offerer.³⁵ He claims that thus far certain factors have been overlooked and the significance of others have been misperceived. Below, I examine whether Schwartz's analysis undermines any element of my examination of the desirable content of bidder regulation. First (in Section 1), I will examine what bearing Schwartz's analysis has on my evaluation of the position of target share-

³⁴ That it is worthwhile to repeat the proposition that the sole owner standard requires a ban on obstructing tactics is exemplified by the recent article of Jonathan M. Macey, Fred McChesney, & David Haddock, *Property Rights in Assets and Resistance to Tender Offers*, 73 Va. L. Rev. 701 (1987). These authors take the same approach that I took—that the mechanism governing the acquisition of corporate targets should be similar to the one governing the acquisition of sole owners' assets—and on the basis of the same efficiency arguments. But then they move on to argue that this approach provides a justification for allowing obstructing tactics. The authors' analysis, however, reveals no reason why they could disagree with my conclusions that the sole owner approach would be best served by prohibiting obstructing tactics and adopting the arrangements described below to prevent acquisitions that would not be value maximizing.

³⁵ See Schwartz, *supra* note 3, at 172–84.

holders in the absence of restrictions on bidders. Then I will examine what bearing Schwartz's analysis has on the desirability of the two regulatory arrangements that I have advocated: a delay period and a mechanism to neutralize the pressure to tender.

1. The Position of Target Shareholders in the Absence of Restrictions on Bidders

Let us first suppose that no restrictions are placed on bidders' behavior, either by law or by charter provisions. Schwartz says that previous analysis has overlooked two advantages that are involved in targets' positions and has exaggerated a certain disadvantage of targets. Consequently, he appears to believe that, relative to the position of a sole owner, the situation of target shareholders is not on the whole as weak as has been suggested, and that, in any event, whatever weakness exists is due to reasons different from those previously given. Schwartz's analysis, however, does not undermine any element of my earlier analysis of the weakness of the shareholders' position.

My analysis of the shareholders' position may be briefly summarized as follows. Facing no restrictions, bidders would generally make offers of the Saturday Night Special type: partial offers that are open for a very brief period on a first-come, first-served basis.³⁶ In the face of such an offer, shareholders' situation would be pretty weak relative to that of a sole owner engaged in bargaining with the bidder.

To start with, the brevity of the offer's period would practically rule out the possibility that a rival offer would be made before shareholders must make their tender decisions with respect to the present offer. Thus, when shareholders make their decisions, only one offer would be on the table.

The brevity of the time a given offer is open, and the resulting absence of rival offers, would not have a devastating effect on a sole owner's position because the owner would be able to exercise an undistorted choice, and would thus accept the offer only if he concludes that acceptance is indeed his value-maximizing course of action. In reaching his decision, he would take into account the expected value of other offers that might be made later were he to reject the present offer.

In contrast, in the face of a Saturday Night Special offer, the absence of the threat of rival offers would hurt the target's shareholders greatly. For

³⁶ Bidders are at present prohibited from making offers that are open for a brief period or that are on a first-come, first-served basis. While bidders are free to use partial offers, they do not use them all that often (as Schwartz notes, *supra* note 3, at 176). This is because partial offers become more coercive than offers for all shares only when combined with a first-come, first-served structure.

the dispersed shareholders might be unable to reject the offer even if rejection would constitute their value-maximizing course of action—even if, for instance, they expect that rejection would lead to receiving much higher offers later on. As long as the expected post-takeover value of minority shares is lower than the bid price (which, under existing law, might well be the case even if the bid's premium is quite modest),³⁷ the shareholders' decisions would be distorted in favor of tendering.

The gap between the bid price and the expected value of minority shares would present shareholders with a "carrot" and a "stick," both pushing the shareholders toward tendering. The carrot is the prospect that, since the offer is partial and on a first-come, first-served basis, tendering early would enable a shareholder to have all of his shares acquired for the bid price and thus to end up with more than his pro rata fraction of the acquisition price. The stick is the prospect that, if the shareholder does not tender or does not tender early enough, he might end up with all of his shares becoming minority shares and thus with less than his pro rata fraction of the acquisition price.

Let us now consider whether the above conclusions, concerning the weakness of the shareholders' position relative to that of a sole owner, are undermined by Schwartz's claim that two significant advantages of targets have been ignored in previous analysis.³⁸ One overlooked advantage of targets, Schwartz says, is that offers to the dispersed shareholders of a target must be public.³⁹ That offers must be public, he believes, facilitates rival bids and leads bidders to raise their offers in the first place to preempt competing bids. But, in the case of a Saturday Night Special offer, the fact that the offer is public would be unlikely to have any significant auctioneering effect. The very brevity of the period for which the offer would be open, and the pressure to tender very early, exerted by the offer's first-come, first-served structure, would practically rule out the possibility that a rival offer would appear in time. Consequently, as far as

³⁷ For a detailed analysis of the expected value of minority shares under existing law, see *Undistorted Choice*, *supra* note 1, at 1708–14.

³⁸ I shall consider later on Schwartz's claim that a certain disadvantage of targets—the pressure to tender produced by the prospect of ending up with minority shares—has been exaggerated. Schwartz claims that this pressure is ineffective because, when rejection of the bid is value maximizing, shareholders would be confident that this outcome would indeed be reached. As I shall show, shareholders might well not have this necessary confidence even in the helpful circumstances created by the Williams Act's delay period; it will follow from the analysis that such confidence is even less likely to arise in the hectic, rushed atmosphere of a Saturday Night Special bid.

³⁹ See Schwartz, *supra* note 3, at 173–74.

the prospect of actual rival bids is concerned, the publicity of the offer would hardly matter.⁴⁰

The second advantage of targets, which according to Schwartz has been ignored in previous analysis, is that bidders must make all the offers.⁴¹ A buyer who must make all the offers is disadvantaged, Schwartz says, because the buyer's offers might reveal information about the buyer's valuation of the assets it seeks to purchase. If it turns out that the buyer's valuation is a high one, then the seller(s) will know to insist on a high price.

That offers must all be made by the potential buyers, however, is hardly an advantage to target shareholders. To start with, even assuming for a moment that a sole owner would on the whole benefit from an inability to make offers, a target's shareholders would still not derive a benefit from a parallel disability. The potential benefit to a sole owner from inability to make offers is all due to the possibility that, if the buyer must make all the offers, the owner might insist on a high price if he learns from the offers that the buyer's valuation is high. In contrast, in the face of a Saturday Night Special offer, a target's shareholders would hardly gain from information that the bidder attaches a high value to the target's assets. The shareholders' tender decisions would be distorted, so that the shareholders would likely tender as long as the bid price contains a modest premium above the expected post-takeover value of minority shares. Because of these distortions, the success of the Saturday Night Special offer would be unlikely to require a substantial premium even if the shareholders were to know that the bidder's valuation is high.

Furthermore, even in the case of a sole owner, it is far from clear that the owner would benefit from having a potential buyer make all the offers. According to Schwartz, the disadvantage involved in making the offers is that information about the buyer's valuation would be revealed. But the revelation of the buyer's valuation need not disadvantage the buyer. In comparison to the situation in which the buyer's valuation is unknown to the seller, revealing the buyer's valuation will hurt the buyer if the revealed valuation is high, but it will help the buyer if the revealed valuation is low.⁴² Thus, it is not possible to conclude in general that, on an ex-

⁴⁰ That publicity matters little when an offer is open for a brief period of time can be seen from the observed common behavior in the sole owner context. When buyers make to sole owners offers that require an answer on the spot or very quickly, they rarely demand as a condition of making the offer that it be kept secret.

⁴¹ See Schwartz, *supra* note 3, at 172-73.

⁴² This is the common result in buyer-seller bargaining models with incomplete information. See, for example, Motty Perry, An Example of Price Formation in Bilateral Situations: A Bargaining Model with Incomplete Information, 54 *Econometrica* 313 (1986).

pected value basis, the prices received by selling sole owners would, on average, increase if they could get some extra information about the buyers' valuations.

Moreover, even assuming that selling sole owners would, on average, benefit from receiving such extra information, it would still be far from clear that such sellers would benefit from having the buyer make all the offers. While such a bargaining procedure would likely reveal some information about the buyer's valuation, it would also carry with it an offsetting substantial disadvantage to the seller.

To understand this disadvantage, consider the standard model of bargaining in which delay in reaching agreement is costly and offers are made in discrete rounds. Suppose that at each round the offer must come from the same party. Then, at each round, the party making the offers would confront the other party with the binary choice of "taking" the offer or "leaving" it, thereby delaying agreement by at least one round. Because the offer would be the only alternative to delay, the party making the offer would be able to tailor it in such a way that, if accepted, the offerer would capture most of the gains produced by avoiding delay. This advantage of the party making offers is now widely recognized in the literature on bargaining.⁴³ Indeed, Schwartz himself recognizes this point when, in a different place in his discussion, he says that targets are disadvantaged by the take-it-or-leave-it element that exists whenever a bidder makes an offer the rejection of which would create the risk of delay or even a breakdown.⁴⁴ What Schwartz does not see at that stage is that, if target shareholders are disadvantaged by the take-it-or-leave-it element present in bidders' offers, then requiring bidders to make all the offers cannot be an unambiguous advantage to target shareholders.

The preceding analysis thus suggests that bidders' need to make all the offers is hardly an advantage to target shareholders because (i) the party making the offers gets the advantage that follows from the take-it-or-leave-it element that offers always contain when delay is costly; (ii) while offers might reveal the bidder's valuation, revelations of high valuation are offset by revelations of low valuation; and (iii) in any event, a target's dispersed shareholders would be generally unable to make any strategic gain from receiving information that the bidder's valuation is high.

In sum, Schwartz's analysis does not establish the existence of any significant overlooked advantage of target shareholders. I therefore adhere to my earlier conclusion that, in the absence of any restrictions on

⁴³ The point was first formally demonstrated by Ariel R. Rubinstein, *Perfect Equilibrium in a Bargaining Model*, 50 *Econometrica* 97 (1982).

⁴⁴ See Schwartz, *supra* note 3, 175-79.

bidders, the bargaining position of target shareholders is very weak relative to that of a sole owner. I now turn to examine whether Schwartz's analysis undermines my analysis of the arrangements that are desirable in order to improve the shareholders' position.

2. Providing a Delay Period

In my earlier papers, I suggested that it is desirable to provide a mandatory delay period, and I therefore endorsed the delay provided by the Williams Act.⁴⁵ Schwartz's analysis also leads him to accept the proposition that a delay period serves the sole owner standard.⁴⁶ Schwartz does not analyze correctly, however, how a delay period benefits target shareholders. This point is worth clarifying, because it is important to understand exactly why mandatory delay is suggested by the sole owner standard.

Why, then, is it desirable to provide a delay period in the takeover case but not in the case of an offer to a sole owner? According to Schwartz, target shareholders are especially unable to gain access to rival offers when confronted with offers that are open only for a brief period.⁴⁷ Sole owners, Schwartz says, can promptly solicit rival offers or take steps to extend the offer until rival offers are made. In contrast, dispersed target shareholders cannot do so because of their inability to take collective action.

I agree, of course, that the absence of delay hurts a target's shareholders much more than it hurts a sole owner. But, I wish to emphasize, this difference is not due to sole owners' superior ability to solicit rival offers when faced with offers that are open only briefly. Indeed, in the face of a very brief offer, a sole owner can usually do little to solicit competing offers, and must usually make a decision with only one offer on the table. The point, rather, is that a sole owner would be much less hurt by being limited to the present buyer's offer. The sole owner would be able to exercise undistorted choice, and would not accept an offer below the expected value of offers that he might get after the present offer expires. In contrast, the dispersed shareholders of a target might well be pressured to accept the only offer on the table even if they think that the offer is less than competitive and that better offers would be likely to emerge later on. Thus, target shareholders need a mandatory delay period much more than does a sole owner, not because the shareholders would find it harder to

⁴⁵ See Case for Auctions I, at 1051-54; Case for Auctions II, at 45-46; Case for Auctions III, at 253-54; *supra* note 1.

⁴⁶ See Schwartz, *supra* note 3, at 169, 185.

⁴⁷ See Schwartz, *supra* note 3, at 178-79.

solicit rival bids without such delay, but rather because the shareholders have a much greater need for the protection provided by competition among acquirers.

3. Providing a Mechanism to Neutralize the Pressure to Tender

The second main element of bidder regulation that I have advocated is a mechanism that would eliminate the distortions of shareholder choice.⁴⁸ The mechanism was proposed to ensure that a target would be acquired only if its shareholders view accepting the bid as their value-maximizing course of action.

The principle behind the mechanism's design is to enable shareholders to express their preferences concerning a takeover in isolation from their desire to have their shares acquired in the event of a takeover. One version of the proposed mechanism, which can be described briefly, is the scheme of approving and disapproving tenders.⁴⁹ According to the scheme, a bidder would have to enable tendering shareholders to make two kind of tenders—an approving tender and a disapproving tender. Technically, a shareholder would be able to express his choice by marking an appropriate box on the tender form that accompanies all tendered shares. Under the scheme, a bidder would be allowed to gain control only if it attracts the required number of approving tenders (say, approving tenders from a majority of the target's shareholders).

Once the proposed scheme is introduced, shareholders would by and large tender, either approvingly or disapprovingly. The shareholders' choices between tendering approvingly and disapprovingly would be undistorted. If a shareholder views the offered acquisition price as adequate, he would tender approvingly. If he views the offered price as inadequate, he would tender disapprovingly—thus expressing his preference against a takeover, while ensuring that in the event of a takeover he would receive his pro rata fraction of the acquisition price. Consequently, the target would be acquired only if the shareholders (or at least a majority of them) view the value of the offer as exceeding the target's independent value.

Another version of the proposed mechanism is the separate-vote scheme.⁵⁰ Under this scheme, a bidder would be allowed to proceed only

⁴⁸ See *Undistorted Choice*, at 1747–64; *Model of Bids*, at 22–27; and *Pressure to Tender*, Section III(A); *supra* note 1.

⁴⁹ This version is discussed in detail in *Undistorted Choice*, at 1747–54, and *Pressure to Tender*, Section III(A)(1), *supra* note 1. The discussion in these articles also includes an examination of the alternative ways—regulation and private charter amendment—through which the scheme might be adopted.

⁵⁰ This version is discussed in detail in *Undistorted Choice*, at 1757–59, and *Pressure to Tender*, Section III(A)(3), *supra* note 1. As is explained there, the scheme of approving/disapproving tenders is somewhat preferable to the separate vote scheme.

if its bid obtained the required approval in a prior, separate vote conducted among the target's shareholders. This separate-vote scheme is similar in some important respects to the arrangement contained in "control share acquisition" statutes that were recently adopted by some states and upheld by the Supreme Court in *Dynamics*.⁵¹

The proposed mechanism would thus ensure that an acquisition would not occur unless the shareholders view the offered acquisition price as exceeding the independent target's value.⁵² Given our present assumption that the sole owner standard has been accepted, the two possible objections to the mechanism are as follows. First, it might be argued that, especially in the presence of a mandatory delay period, a target's independent value almost never exceeds the value of the takeover offers received by shareholders, and that consequently remaining independent is almost never value maximizing for a takeover target. I responded in detail to this objection, which Schwartz does not raise, in my earlier articles: I showed that there are reasons to believe that there are many instances in which remaining independent would be the shareholders' value-maximizing course of action.⁵³ The second possible objection, which is the one that Schwartz's analysis aims to establish, accepts that there are instances where remaining independent would be value maximizing. What Schwartz denies is the possibility that in such instances, and without the proposed mechanism, the shareholders might be pressured to tender and the offer might succeed. When remaining independent is value maximizing, Schwartz claims, the bid will not succeed,⁵⁴ and the proposed mechanism is thus unnecessary to secure such an outcome.

To examine Schwartz's claim that the pressure to tender is ineffective, let us consider the model of shareholder choice that he uses.⁵⁵ Suppose

⁵¹ See *CTS Corporation v. Dynamics Corporation of America, et al.*, 107 S. Ct. 1637 (1987). It is important to emphasize that not all the elements commonly found in such statutes are desirable (according to the sole owner standard). While having a vote that would express shareholders' preferences concerning a takeover is in principle desirable, the statutes often impose substantial delays and procedural obstacles in bidders' way to such a vote. These impediments are not required by (and are indeed inconsistent with) the goal of insuring undistorted shareholder choice, and they appear to be designed primarily to protect incumbents from hostile tender offers.

⁵² Note that adopting the proposed mechanism would significantly shorten the length of the desirable delay period. Some delay would still be desirable to enable shareholders to figure out what they want to do. But the delay would no longer be necessary for the role of protecting shareholders from the consequences of the distortions of shareholder choice. For once the scheme is adopted, a target's shareholders would be able, as would a sole owner, to follow their value-maximizing course of action. If they believe that waiting a bit longer would serve them, then they would be able to decide freely to reject the offer.

⁵³ See *Undistorted Choice*, *supra* note 1, at 1768-70.

⁵⁴ See Schwartz, *supra* note 3, at 179-83.

⁵⁵ See Schwartz, *supra* note 3, at 174-75. That model is similar to the one analyzed in *Model of Bids*, *supra* note 1, at 41-42. A somewhat more general and complex model is

then that a bidder offers X per share for all of a target's shares, that Y is the expected post-takeover value of minority shares, and that V is the shareholders' estimate of the independent target's per share value. Let us also suppose that $V > X$, so that rejecting the offer and remaining independent is value maximizing.

Clearly, each shareholder's strategy would depend on his expectations with regard to the strategies that other shareholders would follow. For this reason, economists analyzing situations such as this use the concept of an equilibrium strategy. An equilibrium strategy is one that each shareholder would find in his interest to follow if he assumes that other shareholders are going to follow it. Equilibrium strategies, economists generally believe, are the ones that deserve the analyst's attention.

An examination of the situation under consideration indicates that there are two possible equilibrium strategies. One equilibrium strategy—the "bad" equilibrium—is for each shareholder to tender his shares. To see that this is an equilibrium, note that, assuming that other shareholders are going to tender and the bid is going to succeed, each shareholder would also prefer to tender (since $Y < X$) to avoid remaining with minority shares. This equilibrium is bad because the value-maximizing outcome—remaining independent—would not be reached.

The second equilibrium strategy—the "good" equilibrium—is for each shareholder to hold out. Assuming that other shareholders are going to hold out and the target is going to remain independent, each shareholder would also prefer to hold out (since $V > X$); for if the target is going to remain independent, then tendering might produce a loss ($V - X$) in the event that the failing bidder elects to purchase tendered shares. This equilibrium is "good" in that the value-maximizing outcome would be reached.

In my earlier articles, I pointed out that, in the situation under consideration, both the good outcome and the bad outcome are possible equilibria. Which of the two outcomes would obtain, I said, would depend on the shareholders' expectations; these expectations would indeed be self-fulfilling. The shareholders' expectations, I suggested, can go either way; and since these expectations would be self-fulfilling, the outcome can also go either way. Therefore, I concluded, the bad outcome is possible and provides a basis for concern.

Although Schwartz recognizes that the bad outcome constitutes an equilibrium, he argues that the good outcome is all but bound to occur.⁵⁶

presented in Model of Bids, *supra* note 1, at 5–22. That model is used to develop a detailed, game-theoretic analysis of the various aspects of shareholder choice in the face of a tender offer.

⁵⁶ See Schwartz, *supra* note 3, at 179–83.

He agrees that the bad outcome would obtain if shareholders expected it to obtain. But he asserts that it is highly unlikely for the shareholders to have such expectations. Because the good outcome would serve the shareholders' collective interest, Schwartz believes, the only plausible expectations for shareholders to hold are that this outcome would indeed occur. The good outcome, Schwartz argues, forms, as it were, a "focal point" for shareholders' expectations. The focal point notion on which Schwartz relies is a concept that comes to represent an analyst's intuition that, among two or more possible equilibria, one of them would in some way attract the parties' attention as they form their expectations.⁵⁷

This focal point reasoning, however, does not justify Schwartz's confidence that the good outcome is practically bound to take place. To start with, even assuming that focal point considerations unambiguously point toward the good outcome—and I shall presently show that they do not—such considerations provide an uncertain ground for selecting one equilibrium outcome as the one practically bound to obtain. The notion of a focal point has no firm ground in rational decision theory. In the situation under consideration, the requirement that an outcome constitute an equilibrium already uses all the information that can be derived from the assumption that parties behave in their rational self-interest. In other words, that the bad outcome constitutes an equilibrium implies that this outcome is perfectly consistent with rational self-interest. That is true regardless of how sophisticated the parties are (a point worth noting in light of Schwartz's emphasis on the sophistication of most market participants that hold target shares⁵⁸). There is no systematic theory that could provide a solid prediction as to which equilibrium outcome is more likely to occur than its rival and by how much.⁵⁹

Furthermore, even supposing that focal point considerations can in principle provide a solid basis for prediction, it is not the case that, in the situation under examination, these considerations point unambiguously toward the good outcome. Schwartz's claim is based on his intuition that

⁵⁷ The concept of a focal point is due to Schelling. See Thomas C. Schelling, *The Strategy of Conflict*, ch. 2 (1960).

⁵⁸ See Schwartz, *supra* note 3, at 180–82.

⁵⁹ Schwartz claims that his view—that the bad equilibrium is highly unlikely to occur—is supported by the results of laboratory experiments reported in Robert Forsythe *et al.*, *Asset Valuation in an Experimental Market*, 50 *Econometrica* 537 (1982). See Schwartz, *supra* note 3, at 182. The results of this laboratory study, however, are totally irrelevant to the issue at hand. What the results suggest is only that, with respect to asset valuation, models that require the predicted outcome to be a (rational expectations) equilibrium are superior to models (such as the one attributed by the study's authors to Keynes) that do not impose such a requirement. The results have no bearing on the question under consideration, namely, whether and how one could choose between two outcomes that are both consistent with the requirements of (rational expectations) equilibrium.

it is sensible for investors to direct their expectations toward the better outcome. While it is questionable whether the good is more sensible for investors to expect than the bad,⁶⁰ let us grant that, other things equal, the good is indeed more plausible to expect. The point that I wish to emphasize is that other things might not be equal: the good and bad outcomes might differ in dimensions other than the good/bad difference, and some of these dimensions might give rise to focal point considerations that point toward the bad outcome. Describing two important dimensions of this kind should suffice to make the point.

Suppose, for example, that X , the bid price, is \$100; that Y , the post-takeover value of minority shares, is \$80; and that V , the independent target's per-share value, is \$105. In this situation, the two equilibrium outcomes would substantially differ in the penalty that they would impose on a shareholder who would fail to act in the same way as his fellow shareholders. Clearly, since each shareholder must act without certainty as to how others would act, he would recognize the possibility that his expectations would prove mistaken and he would act differently from the way others would turn to act. In the considered numerical example, if the shareholder holds out, and the other shareholders happen to tender, then his deviation from the equilibrium strategy would cost him \$20 per share: he would end up with minority shares worth \$80 each instead of having them acquired for \$100 each. In contrast, if the shareholder tenders, and the other shareholders happen to hold out, then his deviation from the equilibrium strategy would at most cost him \$5 per share: if the failing bidder elects to purchase his tendered shares, he will lose, per share, the gap of \$5 between the target's independent per share value of \$105 and the bid price of \$100. Thus, expecting that the bad outcome is going to occur (and therefore tendering) is in an important sense "safer"—the maximum potential monetary loss is smaller—than expecting the good outcome (and therefore holding out). Because each shareholder recognizes this asymmetry between the outcomes and knows that others recognize it as well, the asymmetry might make the bad outcome a focal point.

To be sure, the consideration of which expectations are "safer" would point toward the good outcome if V exceeds X by a sufficiently large margin. Suppose that in the above numerical example V is raised from \$105 to \$150. In this case, expecting the bad outcome to obtain (and therefore tendering) becomes the "riskier" expectation to have, in that it might produce a loss of \$50 per share in the event that the good outcome

⁶⁰ Is optimism a stronger strain in human nature than pessimism? Note that neither individual rationality nor individual self-interest favor the good outcome over the bad: as already emphasized, both outcomes are perfectly consistent with rational self-interest.

obtains. Consequently, the consideration under discussion would direct expectations toward the good outcome. But the point to remember is that, as long as V in our example is less than \$120, the consideration of minimizing potential regret would work to make the bad outcome a focal point.

Another dimension of the situation that might direct expectations toward the bad outcome arises from the reality of control thresholds. Effective control over a target can usually be obtained by acquiring a substantial plurality of shares, a block falling somewhat short of a majority. In such a case, the bid's success requires only tendering by a plurality and thus requires only that such a plurality expect a takeover. That is, the initial expectations that would suffice to bring about the bid's success are substantially less widespread than those which would suffice to bring about the bid's failure. Again, because each shareholder would recognize this asymmetry between the two outcomes and would know that other shareholders recognize it as well, the asymmetry would work to direct expectations toward the bad outcome.⁶¹

Finally, it is necessary to consider Schwartz's claim that empirical evidence supports his confidence that the bad outcome would not occur. The enactment of the Williams Act was followed by a substantial rise in takeover premiums. According to Schwartz, that the Williams Act substantially raised premiums, while doing little to reduce coordination costs among the shareholders, indicates that shareholders are little hurt by coordination problems and thus by the pressure to tender.⁶²

The evidence brought up by Schwartz, however, suggests the opposite conclusion. The substantial increase in premiums produced by the Williams Act's delay period suggests that the distortions of shareholder choice are quite significant. This increase indicates that, prior to the Williams Act, in the absence of the threat of competing bids, bidders acquired targets for much less than the competitive price. Bidders were able to do so precisely because target shareholders were generally unable to reject the first offer and remain independent for a bit longer to get the competi-

⁶¹ Before closing the theoretical discussion concerning the effectiveness of the pressure to tender, it is worth noting a critical assumption in the model used by Schwartz and discussed above—that all shareholders have the same estimate of V and, moreover, know about this uniformity. The discussion above showed that even under that assumption, which is the most favorable to Schwartz's claim, the bad outcome is quite possible. The possibility that the bad outcome would obtain emerges even more clearly once this assumption is dropped and it is recognized that shareholders might be uncertain about the precise estimates of V that their fellow shareholders have. As is shown in Model of Bids, *supra* note 1, such uncertainty might facilitate the bad outcome.

⁶² See Schwartz, *supra* note 3, at 183.

tive price. A target's shareholders, then, had been, and today still are, often unable to remain independent even when that course of action would be value maximizing. What the Williams Act did was to raise (by facilitating competition among bidders) the level of the offers that target shareholders face, and thus it reduced the extent to which these shareholders are hurt by their inability to reject offers.

As I emphasized in my earlier work,⁶³ my position is not that the pressure to tender is irresistible, and that a target is bound to be acquired. A bid might well fail, for example, if the independent target's value exceeds by a very substantial margin the bid price and if the financial media reports widespread confidence that the bid will fail. But both theory and the little empirical evidence available suggest that the pressure to tender, though not irresistible, might often be effective. A bidder might offer a price lower by a nontrivial margin than the independent target's value and still enjoy a substantial likelihood of success. The pressure to tender is thus a ground for concern, and that is why it is desirable to adopt a mechanism to neutralize this pressure.

III. CONCLUSION

In response to Schwartz's critical analysis, I have reexamined the sole owner approach that I have put forward in earlier work. I conclude that none of the points raised by Schwartz weakens either the case for the sole owner standard or my earlier conclusions concerning the rules suggested by this standard.

As the analysis has shown, implementing the sole owner standard should bring us closest to ensuring efficient outcome for takeover bids and to inducing efficient investment levels in given companies. Furthermore, the sole owner approach is the one most consistent with the approach that the law follows, and economists generally approve, in regulating the acquisition of assets in contexts outside the corporate takeover.

It is thus only appropriate to repeat my recommendation that takeover law should be designed in accordance with the sole owner standard. To ensure the success of all acquisition offers that enjoy shareholder support, managers should be prohibited from obstructing offers. To prevent acquisitions that do not enjoy shareholder support, it is desirable that the law provide a delay period (like the one prescribed by the Williams Act) as

⁶³ See, for example, *Undistorted Choice*, *supra* note 1, at 1732-33.

well as an arrangement ensuring undistorted shareholder choice (like the proposed scheme of approving/disapproving tenders or the separate-vote scheme).⁶⁴

⁶⁴ In his brief response to this paper, Alan Schwartz makes two claims. See Schwartz, *The Sole Owner Standard Reviewed*, 17 *J. Legal Stud.* 231 (1988).

(i) Schwartz claims that his paper has established the proposition that, in an unregulated takeover market, target shareholders would be fully compensated for the "loss" of their shares—that is, would receive no less than the value of their shares under indefinite independent existence of the target. He suggests that I accept this proposition and that the sole owner standard is advanced solely in order to provide target shareholders with more than the target's value under independent existence. But a substantial part of my paper (as well as parts of my earlier work) has disputed this very proposition. See *supra* Section *IB*. As Section *IB* has explained in great length, in an unregulated takeover market, targets might be acquired for less than their value under independent existence, and inefficient acquisitions—acquisitions moving assets to less valuable uses—might consequently occur.

(ii) Schwartz takes issue with my analysis in *supra* Section *IIB3*, in which I have explained why we should be concerned about the pressure to tender. He makes two criticisms of this analysis.

First, I pointed out that, when the target's independent value exceeds the bid price, both a takeover (the "bad" outcome) and a failure of the bid (the "good" outcome) constitute an equilibrium. Focal point reasoning does not appear to provide a solid basis for singling out one equilibrium. Schwartz says that I have "missed the point." An analyst, Schwartz argues, "must cope directly . . . with the multiple equilibria problem by eliminating as many equilibria as he can." But my point has been exactly that, in the situation under consideration, we *cannot* rule out either one of the equilibria.

Second, I also pointed out that, if we were to accept focal point considerations as a basis for prediction, some such considerations might actually point toward the bad outcome. As one example, I discussed a situation in which the two equilibrium outcomes substantially differ in the penalty that they would impose on shareholders who fail to act in the same way as their fellow shareholders would turn to act. Schwartz claims that my analysis of this example has assumed incorrectly (and inconsistently with my analysis elsewhere) that shareholders do not maximize expected utility but rather follow the strategy of minimax regret. But I have not at all used the assumption I am criticized for using. Throughout, I have assumed that shareholders maximize expected utility. Both the good outcome and the bad outcome, recall, constitute an equilibrium. Therefore, whichever outcome shareholders expect, their maximizing expected utility would make their expectations self-fulfilling. The analyst's choice as to which expectations are likely to be held by the shareholders clearly cannot be derived from the assumption that shareholders maximize expected utility; expecting either outcome is fully consistent with this assumption. The analyst engaged in focal point reasoning can only use his intuition as to which factors would attract shareholders' attention when they form their expectations. And the factors that I have noted do appear to be ones that might well attract such shareholder attention.

