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Why Defer to Managers? A Strong-form Efficiency Model

by

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In this paper we explore again the efficient legal rule to govern hostile tender offers.¹ Most of our discussion involves the choice between two stylized legal regimes—shareholder choice, a position long favored by most legal academic commentators,² and management discretion, a position associated with that of the Delaware courts.³ The management discretion position has been attacked by Ronald

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¹ This paper builds on Richard E. Kihlstrom and Michael L. Wachter, *Corporate Policy and the Coherence of Delaware Takeover Law*, 152 U. PA. L. R. 523 (December 2003). See also Michael L. Wachter, *Takeover Defense when Financial Markets Are (Only) Relatively Efficient*, 151 U. PA. L. R. 787 (January 2003).

² By shareholder choice we mean a legal regime that would prevent managers from maintaining takeover defenses beyond a period of time that would allow them to offer an alternative to the takeover bid. The shareholder choice model was first developed in the early 1980s by Ronald J. Gilson, *A Structural Approach to Corporations: The Case Against Defensive Tactics in Tender Offers*, 33 Stan. L. Rev. 819 (1981); 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) and Lucian Arye Bebchuk, *The Case for Facilitating Competing Tender Offers*, 95 Harv. L. Rev. 1028 (1982). Later articles taking this position include: Lucian Arye Bebchuk, *The Case Against Board Veto in Corporate Takeovers*, 69 U. Chi. L. R. 973 (2002); Lucian Arye Bebchuk et al., *The Powerful Antitakeover Force of Staggered Boards: Further Findings and a Reply to Symposium Participants*, 55 Stan. L. Rev. 885 (2003); John C. Coffee, Jr., *The Bylaw Battlefield: Can Institutions Change the Outcome of Corporate Control Contests*, 51 U. Miami L. Rev. 605 (1997); Jeffrey Gordon, "Just Say Never?:" *Poison Pills, Deadhand Pills and Shareholder Adopted Bylaws: An Essay for Warren Buffet*, 19 Cardozo L. Rev. 511 (1997). The shareholder choice position can, for expositional purposes, be identified with the Chancery Court's holding in *Interco*. According to *Interco*'s reasoning, target management could use its poison pill to hold off the immediate clutches of an unwanted suitor. But the firm would eventually have to be sold, possibly to the existing management team should they mount a management buy-out ("MBO"), unless the shareholders could be quickly convinced to value the current earnings prospects of the firm more highly. *City Capital Assoc. v. Interco, Inc.*, 551 A.2d 787, 802 (Del. Ch. 1988).

³ We use the term management discretion to refer to the Delaware legal regime that can be interpreted as permitting managers to maintain takeover defenses in place in the face of a hostile tender offer as long as those defenses are neither coercive nor preclusive. The legal rule for Delaware corporations is developed in *Unocal Corp. v. Mesa Petroleum Co.*, 493 A.2d 946 (Del. 1985) and *Unitrin, Inc. v. American General Corp.*, 651 A.2d 1361 (Del. 1995). The Delaware Supreme Court has stated the *Unocal* intermediate level

Gilson, among others, for lacking a coherent justification.⁴ More recently, commentators have come to the defense of management discretion, with three of the papers appearing in a Penn Law Symposium entitled Corporate Control Transactions. The three offer complementary explanations to justify management discretion.⁵

In this paper we assume strong-form efficiency as that term is generally understood. Specifically, we assume that investors learn the present value of the free cash flow generated by the firm's existing assets and the reinvestment returns generated by those future free cash flows.⁶ Strong-form efficiency in most cases lends strong support for allowing shareholders the ability to decide the outcome of contested control transactions.⁷ The question answered in this paper is the extent to which critiques of shareholder choice ultimately rest on failures in financial market efficiency.

Our answer is that strong-form efficiency is not sufficient to provide unambiguous support for a shareholders choice legal regime. The reason, as we alluded to in earlier papers, is that managers have the ability to choose among corporate policies in a manner that reduces the probability of a takeover in ways that are undetected or even sanctioned by the financial markets. We focus on corporate policy because the choice

of scrutiny as follows: [B]efore the business judgment rule is applied to a board's adoption of a defensive measure, the burden will lie with the board to prove (a) reasonable grounds for believing that a danger to corporate policy and effectiveness existed; and (b) that the defensive measure adopted was reasonable in relation to the threat posed. *Paramount Communications Inc. v. Time, Inc.* 571 A.2d 1140, 1152 (Del. 1989) (citing *Unocal, supra*). In *Unitrin*, the Court held that the board of directors can retain takeover defenses if those defenses are neither coercive nor preclusive and fall within a range of reasonableness. *Unitrin*, 651 A.2d at 1367. The primary exception is when the board of directors' actions have effectively put the company up for sale. Under such circumstances, *Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc.*, 506 A.2d 173 (Del. 1986) establishes that directors must maximize shareholder value.

⁴Ronald J. Gilson, *Unocal Fifteen Years Later (And What We Can Do About It)* Del. J. Corp. L. 491, 492 (2001). Gilson states "The statute, like a golem, requires an animating principle to come alive. ...But *Unitrin*'s effective abandonment of *Unocal*'s regulatory function brings us back to the need for an animating justification: why should the court prefer elections to markets?"

⁵ Marcel Kahan and Edward B. Rock, *Corporate Constitutionalism: Antitakeover Charter Provisions as Precommitmen* 152 U. PA. L. R. 473 (December 2003); Kihlstrom and Wachter, *Corporate Policy and the Coherence of Delaware Takeover Law*; and Jennifer Arlen and Eric Talley, *Unregulable Defenses and the Perils of Shareholder Choice* 152 U. PA. L. R. 577 (December 2003). See also, the earlier paper, Wachter, *Takeover Defense when Financial Markets Are (Only) Relatively Efficient*, 151 U. PA. L. R. 787 (January 2003),

⁶ We follow the conventional definitions of strong and semi-strong-form efficiency. See, for example, Richard A. Brealey and Stewart C. Myers, *PRINCIPLES OF CORPORATE FINANCE*, 6th ed. 199-205 (McGraw-Hill, 2000) and John Y. Campbell, Andrew W. Lo and A. Craig MacKinlay, *The Econometrics of Financial Markets* (Princeton Univ. Press, 1997).

⁷ Deviations from strong-form efficiency undercut the rationale for the efficiency of a shareholder choice legal regime. In our model, market efficiency is needed to secure the main benefit of shareholder choice; namely using the market for control as a device to discipline managers by reducing their private benefits and by encouraging them to adopt value-enhancing corporate policies. If markets become strong-form efficient in the context of a takeover battle, then all transactions are value enhancing to shareholders. If this is not the case and managers have superior information to the market, then the firms that are taken are not those that have high agency costs, but instead are those that are inefficiently priced. In this case, the threat of takeovers does not encourage managers to minimize their private benefits, rather the threat encourages them to manage to the financial markets, even when their own superior information suggests an alternative policy.

among corporate policy opportunities is the central function of the managers and the decision that is most likely to have a significant effect on the market value of the corporation.

Modeling corporate policy as the cornerstone in the analysis is also useful because the Delaware courts' most persistent argument in favor of their takeover law doctrine is the need to protect the ability of managers to adopt policies that maximize the value of the corporation and the shareholders' interest. Although a management discretion regime may be favored for reasons unconnected with the Delaware courts' reasoning, we show that, in fact, the Delaware courts' position is consistent with the argument that we develop.

While financial markets may become strong-form efficient when pricing the value of the corporation based on its current corporate policies and assets, markets are not as well informed as are managers about new corporate policy opportunities. In particular, if corporate policy opportunities are not adopted, markets have no way of knowing what the firm's value would have been had the policy been adopted. Thus managers can, if it is in their interest, forgo policies that they know to be value enhancing. Such a maneuver will be in the managers' interest if the adoption of the policies would increase the chance of a hostile tender offer. The maneuver is not self-defeating because it does not get built into the market price. More formally, there are informational asymmetries inherent in the fact that managers are more informed about how to best conduct the business and affairs of the incorporation, and not all of this information becomes publicly disclosed.

Moreover, if the markets could incorporate the possibility of future corporate policy opportunities, they could discount the firm's value to reflect the costs of this agency problem. To assume that the market knows the value of all corporate policy options that might be forgone in the future and can incorporate this into share prices is to assume a kind of hyper-efficiency that goes well beyond strong-form efficiency. Financial markets might be hyper-efficient in the way we use the term, but there is no evidence that this is so.

As a consequence, in periods prior to a hostile bid, when management decisions are protected by the presumption of the business judgment rule, managers can adopt those corporate policies that best provide them with protection against takeovers instead of adopting the corporate policies that maximize the value of the corporation. This is an agency cost of a shareholder choice regime that we discussed in our earlier paper and had not been incorporated into earlier models of shareholder choice.

In this paper, by explicitly modeling the agency cost problem and allowing for synergistic bidders, we can provide an explicit representation of when shareholder choice or management discretion is the efficient rule. We assume that management discretion allows for higher agency costs than does shareholder choice, and that the private benefits under management discretion are the maximum benefits that managers can extract without violating their duty of loyalty. The efficiency tradeoff then turns on whether the

loss associated with a less than optimal corporate policy is larger or smaller than the higher agency costs associated with management discretion.

We also extend our analysis to take account of an alternative legal rule that can fall between shareholder choice and complete management discretion. This rule, for example, would capture a regime that both facilitated a bidder's ability to wage a proxy contest for control of the firm and provided heightened scrutiny that restricted managers' ability to alter the voting rules in their favor. We show that under certain conditions, such a regime is unambiguously inferior to either management discretion or shareholder choice because it may increase the cost of a bid while not encouraging managers to maximize the value of the firm.

1. Monitoring Managers with Incomplete Information

This paper focuses on the informational issues that help determine the efficient legal rule for governing hostile tender offers. These issues are a core corporate law problem involving the allocation of power between shareholders and directors. It is generally agreed that managers know more than investors as to how to conduct the business and affairs of the corporation; a principle that provides the basis for the business judgment rule presumption to protect directors' ability to make largely unchallengeable business judgments.⁸ No one contests the conclusion that the choice among corporate policies has to be made by managers and not by shareholders. It is also generally agreed that the separation of ownership and control means that managers may act for their own private benefit rather than as faithful fiduciaries and thus not maximize the value of the corporation. This creates the classic corporate law dilemma: if managers are given unconstrained authority they may act in their own interest, yet if their authority is too constrained they may be unable to adopt the corporate policies that they know are best for the corporation.⁹

It is often argued that this problem becomes unimportant if capital markets are efficient in the strong sense. When markets are strong-form efficient, then the financial market and hence shareholders know as much about the value of the firm as do managers. However, the evidence to support this assumption is scanty, with the empirical evidence providing better support for semi-strong-form efficiency. A convenient and plausible

⁸ § 141(a) states that "The business and affairs of every corporation ... shall be managed by or under the direction of a board of directors" Delaware General Corporation Law. Under Delaware case law, the business judgment rule is ... a presumption that in making a business decision, the directors of a corporation acted on an informed basis; in good faith and in the honest belief that the action taken was in the best interests of the company. Absent an abuse of discretion, that judgment will be respected by the courts. The burden is on the party challenging the decision to establish facts rebutting the presumption." Aronson v. Lewis (Del 1984)

⁹ The resolution to the classical dilemma is a settled matter of law in the case of ordinary business judgments. In such cases the business judgment rule provides a highly deferential rule that gives directors extensive authority to decide on corporate policies without challenge from disgruntled shareholders. Few commentators disagree, and would assign greater discretion to shareholders to choose the appropriate corporate policy. The dilemma is far from being resolved appropriately in the case where a hostile bidder appears who is willing to buy the shares of the corporation above the existing market price. If the bid succeeds, the directors lose their jobs and private benefits.

assumption is that capital markets become strong-form efficient in the midst of the disclosure-rich environment of takeover battles.¹⁰ Because a task of this paper is to explore the importance of strong-form efficiency in the debate over the appropriate takeover defense policy, we adopt the assumption that financial markets are always strong-form efficient.¹¹

Specifically, investors and potential bidders learn the correct value of the corporation—that is, the present value of the free cash flow generated by the firm’s current assets and the reinvestment returns generated by those future free cash flows. In carefully discussing the informational issues at stake, we note an important corollary assumption; namely that the market and potential bidders also know the value of the private benefits received by the managers. The existence of private benefits makes the firm attractive as a takeover candidate since those benefits can be captured by the bidder who succeeds in buying the firm.

The assumption that the private benefits of the managers are known to the market seems plausible. Elements of those private benefits are publicly disclosed when the highest-level executives reveal their compensation, both the fixed salary and the incentive components, in Securities and Exchange Act filings.¹² In addition, corporate decisions that constitute interested transactions can be challenged by shareholders and can become publicly known through the mechanism of a shareholder suit. Since the information about private benefits is disclosed, it is incorporated into market prices even with semi-strong efficiency. Strong-form efficiency goes further and includes in market prices the value of private benefits that are not disclosed. In strong-form efficiency, all of the private benefits—whether publicly disclosed or not disclosed but otherwise discovered by investors—become priced into the value of the firm’s shares.

The important distinction that we make is the following. On the one hand, the market accurately values all of the investments actually made by the firm and all of corporate policies implemented by management. It also prices in the private benefits extracted by management. On the other hand, the market is unable to price in the value of those corporate policy opportunities that are considered but rejected by the managers. Our key assumption, then, is that while markets are strong-form efficient when pricing the actual value of the corporation, they do not price in the effects on corporate value that occur when managers forgo certain corporate policy opportunities. It is unlikely that information on the value of forgone corporate policy opportunities will ever become known to the financial market. There are two reasons for this. First, while Federal disclosure requirements apply effectively to the value of the current assets and policies, there is no requirement that the corporation disclose policy opportunities that the managers decide to forgo. Second, information on the value of forgone corporate policy

¹⁰ This point was suggested by Stephen Ross in a seminar where our paper was presented.

¹¹ Our model does not have a specific “takeover” period so that we cannot focus on this assumption rather than the more general assumption that strong-form efficiency always holds.

¹² As discussed below, we define private benefits as the component of managers’ compensation that is above the opportunity pay of the managers.

opportunities could not be easily ferreted out using shareholder informational rights under state law.

To assume that the values of all corporate policy options are incorporated into share prices—whether those policies are adopted or not—is to assume a kind of hyper-efficiency that goes well beyond strong-form efficiency. Financial markets might be hyper-efficient in the way we use the term, but there is no evidence that this is so.

When marching down the path of financial market efficiency, as we do here, an issue involving a close-cousin of strong-form efficiency arises. If financial markets were hyper-efficient and the informational costs were low, the agency problem we discuss could be resolved by contract. Shareholders would then eventually learn the value of all corporate opportunities, including those that were forgone by managers. Shareholders would then know when managers had acted in their own interest by failing to implement a positive NPV corporate policy and, when that happened, managers could be sanctioned. Managers, however, would never engage in such behavior if they knew that it would ultimately be punished by shareholders. It seems highly implausible, however, that the market could eventually learn the value of corporate policies that are never implemented.

The information problem can be--and is--somewhat ameliorated by the use of golden parachutes and other severance payments. These compensate managers when they lose their jobs in the context of a takeover. Their existence suggests that the problem we identify is both real and imperfectly controlled. Golden parachutes over-compensate managers for the problem we identify because they make a payout whenever the managers lose their job in a merger. They are not conditioned on the specific problem—managers rejecting corporate policy opportunities that are profitable because it threatens their job tenure. Since the golden parachutes are not so conditioned and make payouts too often, there is no reason to assume that they are rich enough to compensate managers who actually invest in those corporate opportunities that threaten their job tenure.

Shareholders might well be aware that the agency problem discussed here exists. They can know that a corporate policy has arisen and been rejected by managers who knew its true value. Without hyper-efficiency of the kind we rule out, outside investors can never know if a particular policy was rejected because it was not a positive NPV opportunity or because managers were acting opportunistically.

A related issue is whether shareholders could anticipate the future occurrence of the agency problem we have identified and could estimate its future cost. When investors are aware that the agency problem exists, it is natural to suppose that they would, to the extent possible, attempt to estimate the expected cost of its future impact on the firm's value. If that were indeed possible, the market would undoubtedly reduce the value of the firm by this amount. It is difficult to imagine that markets will, in fact, know enough about the probability of occurrence and the value of possible future policy opportunities to be able make this calculation in any way that is not effectively arbitrary. These are among the many unforeseen future contingencies that impact the firm and determine its

value. The idea that not all future contingencies can be envisioned and prepared for is the basis for seminal contributions of Williamson and Grossman and Hart.

At the end of the day, managers remain imperfectly monitored and strong-form efficiency, as that term is generally understood, does not resolve the problems created by the need to give managers the ability to choose among the corporate policy opportunities available to the firm. Ultimately there is no clear resolution of the classic dilemma. The choice between management discretion and shareholder choice involves difficult tradeoffs.

2. The Model

2.1 Introductory Comments

For the purpose of the current discussion, we follow our earlier paper and identify a firm's corporate policy with the investment decisions that accompany the implementation of that policy. In particular, we consider a situation in which the managers have an opportunity to implement a significant new corporate policy by making a substantial investment. Nothing turns on the corporate policy being identified with a substantial corporate investment, but we think it useful as an expositional device. In the context of our model, the corporate policy opportunity is a one-time event. Thus, if the investment is not made and the policy is not implemented, the opportunity will disappear.

We assume that since this is a new opportunity that is only being considered for adoption, the managers are more fully informed about the potential returns associated with it than are outside investors. Investors are not fully informed, but make Bayesian predictions as to the value of the firm's new investment opportunities. In making the model more supportive of the shareholder choice legal regime, we assume that investors are aware of the private benefits taken by the managers.

In our model, executive compensation has two components: first, a fixed component, \mathbf{b} , that is independent of the share price and second, a variable component that is determined by the managers' percentage interest, \mathbf{s} , in the residual value of the firm. The various types of benefits actually received by managers can be interpreted as being part of either \mathbf{b} or \mathbf{s} depending on whether they vary with the value of the firm. Fixed compensation and "perks" unrelated to the value of the firm are in \mathbf{b} . Stock ownership or options awarded to the managers determine \mathbf{s} .

Once the compensation structure is fixed, we can identify the private benefits entirely with the \mathbf{b} component.¹³ Strictly speaking, the managers' compensation includes their opportunity wage. However, it is useful to envision the opportunity wage component as a subtraction from the cash flows of the existing assets and of the new

¹³ Strictly speaking, the managers' compensation includes their opportunity wage, and this component may be part of \mathbf{b} and/or part of \mathbf{s} . For simplicity, however, we will assume that \mathbf{b} does not include an opportunity wage component.

investment. With the managers' opportunity cost incorporated into the free cash flows, the **b** and **s** components are thus interpretable as quasi-rents. The difference between **b** and **s** is that the managers' and investors' interests are aligned with respect to **s**, but not with **b**. The alignment of interest with respect to **s** follows from the fact that the **s** component provides managers with a pro rata share of the firm's value. On the other hand, the **b** component is deducted off from the value of the firm and is paid to or taken by the managers.

In deducting **b** from the market value of the firm, we assume that shareholders are informed as to the level of the **b** component. This is a strong assumption, but is consistent with the assumption that deviations from strong-form efficiency are short lived.

In setting corporate policies, the interests of shareholders and managers are aligned when policy decisions only affect the value of the corporation and not the managers' private benefits. Many policy decisions only affect the value of the firm and agency cost problems do not arise with respect to these policies. The misalignment of interest is in sharpest relief in the case of hostile takeovers. Managers will be reluctant to adopt corporate policies that are in the best interest of the corporation if doing so reduces their expected private benefits through a reduction in their job tenure.

We start from an equilibrium position in which all firms are correctly valued and there is no outstanding private information. In equilibrium we thus have strong-form efficiency. In this equilibrium there are no existing takeover opportunities. The market knows the array of agency costs in each firm and these are also priced into the value of the corporation. Consequently, whatever hostile tender offers are profitable at the current array of market prices, available technologies, economic outlook, etc. have occurred. Of course, a bid will be profitable only if the bidder can cover the cost of bidding. The fact that no bids are profitable in the initial equilibrium implies that **b** cannot exceed this cost. In fact, we assume that managers know the cost of a bid and choose **b** to equal it so as to avoid becoming a target while extracting the maximum possible private benefit.

We recognize that there is an immense variety of events that can disturb this initial equilibrium. We suppose that the investors and management also recognize that the initial equilibrium will be disturbed. But we suppose that it is impossible for either investors or managers to anticipate with any degree of useful precision the nature of the possible innovations. For our purposes, we focus the discussion on cases where the equilibrium is disturbed by an unanticipated innovation that brings a new corporate policy or investment opportunity to the firm (the potential target). Once this innovation occurs, investors and managers know that it has occurred but managers know more than the financial market about the returns to this investment opportunity. The policy is implemented if the managers, using their superior information, decide to make the investment. Although the investors don't know as much as the managers, they do know that the managers are better informed. The managers' policy decision provides investors with a potential signal of the managers' information. Investors are Bayesian and use this signal to update their beliefs about the potential returns to the investment opportunity.

The signal may, of course, be uninformative. In our model, hostile tender offers occur at this point.

In the model, a takeover occurs if the potential bidder is able to obtain a higher return from the new investment than current management. The case of primary interest is when this is possible because of the existence of synergies between the new investment and the assets already controlled by the potential bidder. The possibility that a bid will arise because of these synergies implies that, when the managers implement the new policy by making the investment, they face the risk of losing control of the firm and losing the private benefits made possible by that control. This is a risk only in a shareholder choice regime. It is the desire to avoid this risk that can lead the managers to fail to implement the policy even when they know that the returns to its implementation justify the investment. In a management discretion regime, managers make the investment because they know that a hostile bid can be defeated. In this case, defeat of the bid is not in the shareholders' interest. However, if managers could not defeat such bids they would not be willing to implement the new corporate policy when they should. Thus, it is in the interest of shareholders to bear the cost imposed on them by the managers when they choose to reject hostile bids.

In the model, we assume that the price offered by the bidder equals his true valuation of the firm net of bidding costs. Again this is an assumption that can be relaxed at the cost of some complication in the arguments but without affecting the conclusions.

Having briefly described the agency problem that can emerge in a shareholder choice regime, we want to comment on the impact it might have on the initial equilibrium in which we suppose the firm begins. As we noted earlier, in the initial equilibrium, investors and managers are aware that new corporate policy opportunities can arise. In addition they can also be aware of that the agency problem we describe can occur when new opportunities emerge. But time changes and the opportunity set changes with it. Hence, investors cannot anticipate the distribution of outcomes and the possible costs of the agency problem with any precision.

2.2 Formal description of the model

In the formal description of the model it is convenient to identify the implementation of the new corporate policy with the decision to invest. It is also convenient to refer to the decision to invest as the decision to exercise an investment option.

If the investment is made, the firm is worth

$$V(x) = cf + C + x - I - b,$$

where

cf = the PV of the future cash flows of the firm's previous investments, which includes reinvestment at some ROE that is known to the market,

C = the firms' cash on hand,
 I = the cost of exercising the firm's investment option,
 b = the private benefits extracted by the manager,
 x = the PV of the cash flows of the investment and is the realization of a random variable \tilde{x} .

Written in the general form we use, x is open to a number of different interpretations. Recall that the Gordon growth model yields the expression

$$x = \frac{CF}{r - g}$$

where CF is the first period cash flow, g is the growth rate of the cash flows and r is the discount rate. Thus, the uncertainty about x can arise because of uncertainty about the first period cash flow, the growth rate or the discount factor.

We assume that, at the time the investment decision is made, x is known to the firm's managers, but not to the market and that the market simply knows $\bar{x} = E\tilde{x}$.

The value of the firm is thus the sum of two parts. The first component is composed of the existing assets and the reinvestments of the cash flows generated by the existing assets. This component includes the present value of the future growth opportunities based on the existing corporate policy. We assume that these growth opportunities are known to the market and are thus entirely priced into the stock price. The existing corporate policy thus has a known growth rate (g) and discount rate (r) unique to the existing corporate policy.

If no new corporate policy option is open to the market or if such an opportunity is available but is forgone by the firm, the firm is worth

$$V_n = cf + C - b.$$

In that case, the managers and the market are in agreement that the value of the firm is V_n . In other words there is strong-form efficiency in that the share price of the common stock will be the value that generates an enterprise value equal to V_n .

The second component is composed of the newly available corporate policy opportunity. This policy option has its own expected growth rate and discount rate, which is captured by the term x , and cost I .

We focus on the case in which

$$x - I > 0$$

and

$$\bar{x} - I < 0.$$

In this case, the managers know the corporate policy should be implemented because the investment has a positive net present value ($NPV > 0$), while the market has the opposite view, believing the investment is net present value negative. When referring to the investment as an option, we describe the case in which the net present value is positive as the case in which the investment option is in the money. The negative net present value case is, thus, the case of an investment option that is out of the money.

If the investment is made, there will be a brief period in which strong-form efficiency fails in that the managers will know the firm is worth $V(x)$, while the market will believe the firm is worth $V(\bar{x})$. We suppose that soon after the investment is made, the market will learn what the manager knows and will also value the firm at $V(x)$. At that point, strong-form efficiency is restored.

Importantly and for reasons explained below, we also assume that if the investment opportunity is not taken, the market does not come to realize its value or whether it was in the money. In other words, strong-form efficiency is satisfied in the traditional sense. That is, the firm is correctly valued on its existing corporate policy and the current and future assets of that policy. In spite of this, the true value of the corporate policy option that has become available but rejected is not and never will be incorporated into that value.

We assume that outside investors realize that the agency problem exists and that because of it the managers may not implement new corporate policies that should be implemented. They never actually know, however, whether a specific corporate policy opportunity was rejected because of the agency problem or because it was an opportunity not worth taking. If outside investors could anticipate the arrival of new corporate policy opportunities, and could also accurately assess the probability of their arrival and of their being positive NPV investments, they would be willing to pay less for the firm. In particular, the firm's value would be reduced by the expected present value of the future positive NPV opportunities that the market expects the firms' managers to reject because of the agency problem. Following Grossman and Hart, we suppose however, that there are many future contingencies that cannot be foreseen by the market. In particular we assume that it is impossible for market participants to assess the probability of the arrival of new corporate policy opportunities or even to envision the possible corporate policy opportunities that might arise.

Thus, outside investors know that an investment opportunity has become available and not been taken. They don't know whether it was in the money. Not knowing this and not knowing the likelihood of this situation arising again, it is impossible for them to calculate how much the firm should be discounted because of the possible reoccurrence of this event.

Due to the presence of agency costs, managers are assumed to make the decision that maximizes their compensation. However, since managers own a share of the firm, their interests are partially aligned with those of the shareholders. We let

s = the fractional share of the firm owned by the manager.

The managers' interests are not completely aligned with those of shareholders because, as managers, they also extract private benefits that reduce the value of the firm. We designate the private benefits that do not vary directly and proportionally with the value of the firm by the term b .

The managers' total compensation is, therefore,

$$b + sV$$

Allowing for the fact that private benefits are likely to differ depending on whether the legal regime is one of shareholder choice or management discretion, b can equal either b_s or b_m , where

b_s = the private benefits extracted by the manager under shareholder choice

and

b_m = the private benefits extracted by the manager under managerial discretion,

A conclusion of the debate over shareholder choice versus management discretion is that the private benefits associated with managerial discretion are larger than the benefits the managers are able to extract in a shareholder choice regime. That is, we assume that

$$b_m > b_s.$$

The rationale is that managers set b_s below the cost that a hostile bidder would have to pay in transaction costs to takeover the firm. If managers extract benefits in excess of those costs, the resulting reduction of the firm's value will attract hostile bidders and the managers will lose control of the firm and the corresponding private benefits. Thus we can interpret b_s as the expected cost of a takeover bid. This means that whenever a bidder values the firm at an amount that exceeds its market value by more than b_s , a bid will occur.

What sets the value of b_m ? In a world where managers can just say no to tender offers, but still owe fiduciary duties to the corporation, b_m would be determined by what private benefits managers could realize without running afoul of their fiduciary duties.

In the last section, we introduce a third legal regime, where managers can say no to tender offers, but must allow a full and free proxy contest with the bidders. In this

case, the private benefits of the managers would be determined as in the shareholder choice regime but would be higher reflecting the greater costs to the bidder of conducting a combined tender offer/proxy contest battle for control. We define

b_p = the private benefits extracted by managers under the mixed rule where bidders could succeed in winning control by combining a tender offer with a proxy contest.

We assume.

$$b_m > b_p > b_s.$$

3. The Synergies Model

For simplicity, we assume that the corporate policy generates one of two possible outcomes, one yielding a high x and a positive NPV and the other resulting in a low x and thus a negative NPV . Specifically,

$$x \in \{x_L, x_H\}$$

where

$$x_L < x_H$$

and where

$$x_L - I < 0 < x_H - I.$$

In this model, we assume that when the firm adopts a new corporate policy it may increase its attractiveness to a potential bidder. This may happen because the new policy creates a new array of potential synergies and these synergies are recognized by potential bidders. It may happen simply because the potential bidders are better able to realize profits from the investment required to implement the new corporate policy. For simplicity, we discuss this case, using the synergies interpretation. For the same reason, we assume that the value of the synergies created for the bidder by the investment are the realization of a random variable $\tilde{\sigma}$, where

$$\tilde{\sigma} \in \{0, \sigma_H\}$$

$$\sigma_H > 0,$$

and

$$\Pr(\tilde{\sigma} = \sigma_H | \tilde{x} = x_H) = \varphi > 0.$$

The term $\varphi > 0$ represents the probability that positive synergies are created for a potential bidder by the managers' new corporate policy.

As noted we are going to consider the situation in which the managers know that

$$x - I > 0$$

and the market believes that

$$\bar{x} - I < 0$$

In this case, $x = x_H$.

Whether $\varphi > 0$ generates an actual hostile bid will vary depending upon whether the legal regime is shareholder choice or management discretion.

3.1 The Case of Shareholder Choice

The case of interest is where b_s and φ are relatively high and s is relatively low; that is, the managers are able to take large private benefits (because takeover costs are high), there is a good chance that there are material synergies, and managers don't have claims to a significant fraction of the firm's shares. In the equilibrium that arises under these conditions, the managers forgo the new corporate policy even when $x = x_H$ and the policy has a positive *NPV*. Although the implementation of a new corporate policy constitutes a potential signal, the fact that managers never invest in this equilibrium implies that the lack of a new corporate policy is uninformative. We have a pooling equilibrium in which there is no investment when $x = x_H$ or $x = x_L$. As a result the outside investors' initial beliefs are their equilibrium beliefs. In describing how this equilibrium arises, it is necessary to make some assumption about what outside investors would believe if they did observe the implementation of a new corporate policy. Specifically, we assume that, if a new corporate policy is adopted, outside investors would infer that $x = x_H$ and $NPV > 0$.

We first describe the conditions under which the managers decide not to invest when they know that $x = x_H$, that is, the investment option is in the money. The reason that the managers will not make the investment is that they would lose control of the firm. Note that if the managers were to choose to invest in that case, the market **would** value the firm at

$$cf + C + x_H - I - b_s.$$

But in the event that $\tilde{\sigma} = \sigma_H$ the bidder would value the firm at

$$cf + C + (x_H + \sigma_H) - I$$

and make a bid at that price minus the cost of a bid which is b_s . The bidder is thus willing to bid

$$cf + C + (x_H + \sigma_H) - I - b_s.$$

In a shareholder choice regime that bid cannot be rejected and the managers would lose control of the firm. In that event, the managers' compensation would be

$$s[cf + C + (x_H + \sigma_H) - I - b_s]$$

That is, the managers' compensation would only be the value of their investment in the firm and private benefits b_s would be lost. Note that b_s is subtracted off from both equations: the value of the firm without a bid and the value of the bid. In the former case the subtraction is made to reflect the market's knowledge of the managers' private benefits. In the later case the subtraction is made to reflect the cost of the bid.

Recall, however, that with probability $1 - \varphi$, $\tilde{\sigma} = 0$ and no bid occurs. In that case, the managers would retain their private benefits so that their compensation would be

$$b_s + s(cf + C + x_H - I - b_s).$$

When the managers know that $x = x_H$ and invest, they do not yet know if the synergies actually will be generated for the bidder. Thus, the expected compensation of the managers when they invest is

$$(1 - \varphi)b_s + s[cf + C + (x_H + \varphi\sigma_H) - I - b_s]$$

This means that when $x = x_H$ and b_s and φ are both large, the expected compensation associated with not investing exceeds the expected compensation earned by investing. The exact condition is

$$\varphi b_s > s[(x_H + \varphi\sigma_H) - I].$$

Consequently, the corporate policy opportunity is forgone where the managers receive high private benefits (even in a shareholder choice regime) and the probability of the synergies from the potential investment are also high. In this case, there is a misalignment of interest between shareholders and managers because the managers have not only more to lose if the firm is taken over, but also a greater probability of losing control.

In the other possible case, $x = x_L$ and the investment option is out of the money. Since managers own a fraction of the firm, they will not make investments that reduce the value of the firm and they choose not to implement the new corporate policy. In this case, there is no misalignment of interest.¹⁴ Consequently, under the conditions we are considering (both b_s and φ are large), the managers do not adopt the new corporate policy whether $x = x_H$ or $x = x_L$.

Since, in the pooling equilibrium described, the outside investors never have an opportunity to learn that the manager chose not to exercise an investment option that was in the money simply because the investment was never made. In equilibrium, the firm is correctly valued at

$$cf + C - b_s.$$

Since the firm is correctly valued based on all private as well as public information, strong-form efficiency holds in equilibrium!

Before leaving the case of shareholder choice it is useful to note that, when

$$\varphi b_s < s[(x_H + \varphi \sigma_H) - I],$$

the equilibrium will be one in which the managers invest when the investment option is in the money and don't invest when it is not. In this equilibrium, outside investors will interpret the managers' decision not to invest as a signal that they know that the option is out of the money and interpret the decision to invest as a signal that the option is in the money. This is the same equilibrium as the one that arises in the case of managerial discretion, the case we consider next. Under these conditions, the bid does take place and is successful when the synergies actually arise. In other words, in this case the managers do implement the new corporate policy because the value of the policy to them as shareholders exceeds the possibility of lost private benefits. Alignment of interest occurs, but possibly because of the high stock options granted to managers in order to increase their personal gains from any merger.

3.2 The Case of Management Discretion

Management discretion means that the managers can decide to maintain takeover defenses that prevent shareholders from tendering into the bidder's offer. Since they are no longer concerned about losing control of the firm to a hostile tender offer, the manager's interests are aligned with the shareholders when choosing the firm's corporate policy. Now, the equilibrium is one in which the managers invest when the investment option is in the money and don't invest when it is out of the money. The outside investors believe that the investment option is out of the money when they observe the managers

¹⁴ In Kihlstrom and Wachter, *Coherence of Delaware Corporate Law*, we addressed the case where managers actually make investments in policy options that are out-of-the-money in a PV sense because making the investment reduced the probability of a takeover. We could have allowed for this possibility in this paper, but there is no loss in generality by omitting that possibility in the current model.

choose not to invest and they believe the option is in the money when the managers are observed to invest.

When the option is in the money, and the managers invest, they face no risk of a bid and, as a consequence, their compensation is

$$(1-s)b_m + s(cf + C + x_H - I)$$

If they choose not to invest, their compensation is

$$(1-s)b_m + s(cf + C).$$

Since

$$x_H - I > 0,$$

the managers prefer to invest.

When the option is out of the money, and the managers invest, they face no risk of a bid and, as a consequence, their compensation is

$$(1-s)b_m + s(cf + C + x_L - I).$$

If they choose not to invest, their compensation is

$$(1-s)b_m + s(cf + C).$$

Since, in this case,

$$x_L - I < 0,$$

the managers prefer not to invest.

Consequently, when managers can defeat uninvited tender offers, they will adopt whatever corporate policies maximize the value of the firm. This is the major benefit of a management discretion regime. It occurs because managers own some value of the s and making the correct value maximizing decisions poses no threat to their private benefits b_m

3.3 The Legal Systems Compared

In the case where synergies are present and the corporate policy opportunity is in the money, the shareholder choice and management discretion regimes generate different outcomes for shareholders if the private benefits of control are significant and the risk of a new corporate policy generating a hostile bid is high. Under a shareholder choice

regime, the managers choose to avoid the risk of losing their private benefits as the result of a successful hostile bid by choosing not to implement the new policy even though they know they are making a choice that is not in the interests of shareholders. In this case, the shareholders' interest in the corporation is always the value of the corporation under the existing or prior corporate policy, minus the private benefits taken by the managers

$$cf + C - b_s .$$

Under managerial discretion the corporate policy opportunity is always adopted when it is in the money, but the hostile tender offer is rejected if it occurs. Hence, the shareholders get

$$cf + C + \mu_H (x_H - I) - b_m ,$$

where μ_H is the probability of $\tilde{x} = x_H$. The shareholders are clearly better off under management discretion if

$$\mu_H (x_H - I) > b_m - b_s ,$$

where the left side of the above inequality is the expected value of the investment option if it is exercised when it is in the money. This condition means that shareholders are better off under management discretion if the expected benefits from the new corporate policy, ignoring the possible forsaken gains from a potential takeover, exceed the additional agency costs of managerial discretion.

It should be noted that in both legal regimes the shareholders lose the expected value of the synergies. Under shareholder choice this happens because the investment is never made even when it should be. Under managerial discretion this happens because the synergistic bids are rejected. If these bids were not rejected, the firm would be worth

$$cf + C + \mu_H ([x_H + \varphi\sigma_H] - I) - b_m$$

to the shareholders. Thus, the total cost of the new agency problem we have identified as arising in a shareholder choice regime is

$$\mu_H ([x_H + \varphi\sigma_H] - I) ,$$

the expected value of the investment option. By switching to a managerial discretion regime, only part of this agency cost is avoided; namely

$$\mu_H (x_H - I) .$$

What is lost in both regimes is

$$\mu_H \varphi \sigma_H,$$

the expected value of the synergies.

In the comparison of the legal regimes that emerges from the model as described above, the cost borne by shareholders in a managerial choice regime is the increase in the agency costs

$$b_m - b_s.$$

This term omits a cost of managerial discretion that needs to be discussed. This cost arises because there of the possibility that a bidder will emerge who is able to put the firm's current assets to better use, perhaps because of synergies, than the current management. As distinct from our earlier discussion, which involves an innovation directly affecting the managers' corporate policy options, this is an innovation directly affecting the bidder's options as they relate to the existing assets of the managers. Under a shareholder choice regime, bids made by these bidders will be successful and the current assets will as a consequence be moved to their best use. Under a management discretion regime such bids will be defeated. As a result shareholders will suffer and total welfare is reduced because the firm's existing assets will not be used efficiently. If we let ρ be the expected increase in the value of the firm's existing assets when bidders emerge who can put them to better use, then the total loss to shareholders under a managerial discretion regime is

$$b_m - b_s + \rho,$$

and it is this that must be compared to the cost,

$$\mu_H (x_H - I),$$

incurred under a shareholder choice regime. The revised condition under which management discretion is preferred by shareholders is

$$\mu_H (x_H - I) > b_m - b_s + \rho$$

As noted, the loss of ρ is an inefficiency that reduces social welfare. The same is true of

$$\mu_H (x_H - I).$$

In contrast,

$$b_m - b_s.$$

is a loss to shareholders but a gain to managers and, as such, it does not represent an inefficiency.

4. When the Alternative to Shareholder Choice is the Proxy Vote Rule

In this section, we analyze more rigorously what is meant by the terms “shareholder choice” and “management discretion” and discuss whether the conclusions we reach with respect to management discretion hold once one recognizes that hostile tender offers that are held-up, on account of a poison-pill, can eventually succeed once the bidder wages and wins one or two (in the case of a staggered board) proxy contests.

Legal rules have always defined what has been meant by the regimes of shareholder choice and management discretion. Neither has existed in a pure form. A pure shareholder choice regime would be the rule first favored by Easterbrook and Fischel when they argued for complete management passivity in the face of a takeover. This argument is consistent with strong-form efficiency. Since the market price always incorporates all information both public and private, any hostile tender offer has to move resources to their more valued use. Poison pills or other defensive strategies would primarily have the effect of raising the cost of a bid. In our model as we have so far developed it, the ability to deploy poison pills has the effect of raising the private benefits that managers can extract from b_s to b_m .¹⁵

Instead, shareholder choice has come to be recognized as a rule that incorporates the Chancery Court’s *Interco* doctrine. Under *Interco* a target firm could indeed maintain a poison pill long enough to negotiate a better price or advance a superior option. But after an interval long enough to give managers a chance to proffer alternatives, the poison pill would have to be lifted.

The best case for an *Interco* rule over a complete passivity rule is that by providing managers with a bargaining tool it creates a disclosure-rich environment. In doing this, the *Interco* doctrine helped move financial markets from being semi-strong to being strong-form efficient. That is, after a bid is made shareholders learn (more of) what managers knew but have not previously revealed.

Pure management discretion can be identified with an interpretation of *Time-Warner* that allows managers to “just say no” to a tender offer. The problem with this interpretation is twofold: first the Delaware courts have never adopted even an implicit “just say no” rule and second, since shareholders ultimately get to choose the directors, the shareholders do get to eventually decide the fate of the managers.

¹⁵ In saying this we are not taking a position as to whether poison pills are, on balance, positive or negative with respect to shareholders wealth. Our only point is that the gains to shareholders in a potentially higher price in a takeover will be offset to some extent by an increase in the private benefits that managers will be able to extract if they are maximizing their own compensation.

Instead, management discretion has come to be recognized as a rule that builds layers of defensive strategies to a point where a would-be bidder would be effectively deterred. Does layering defenses actually work in building a management discretion regime? Actually the question is more complex than it may appear.

An important aspect of this continuum of legal regimes is the focus of the paper by Kahan and Rock.¹⁶ Its message is that a regime of management discretion is actually a regime that enforces what the parties choose. If parties adopt ineffective takeover defenses, they have chosen to be governed by shareholder choice and that position will be respected by the courts. Besides making this positive claim as to the manner in which the law operates, they add a normative claim. If parties adopt effective takeover defenses, they have chosen management discretion, a position that deserves equal deference. The Kahan and Rock position is complementary to our own, a point that we discuss below.

How do these more mixed regimes operate in the context of our model? In fact, a regime that facilitates a proxy contest for control will, in some cases, operate in a manner similar to shareholder choice, but with higher costs. That is, under some conditions, a so-called management discretion regime degenerates into a very costly shareholder choice regime. However, under certain very plausible assumptions, we can generate the same results as those obtained in a management discretion regime even when there is a need for annual elections.

The factor that is most important in determining which case obtains is the expected cost of acquiring a firm by means of a proxy contest and how that cost relates to the private benefits extracted by management and to the value of the synergies a new investment project might generate for a potential bidder. We let γ equal the costs of a takeover that requires a proxy contest. It is natural to assume that γ is significantly higher than the costs of a successful hostile tender offer in a shareholder choice regime. This means that $\gamma > b_s$ where, it will be recalled b_s is the value of the private benefits extracted by managers in a shareholder choice regime and is chosen by managers to equal the cost of a takeover in that regime. It will also be recalled that, in a management discretion regime, managers are able to extract larger private benefits than is possible under shareholder choice. We have labeled these benefits b_m and they are the maximum private benefits that managers can extract from the firm given the constraints imposed by the managers' fiduciary duties. Thus $b_m > b_s$. Now γ may or may not rise to the level of b_m . When γ is below b_m , the private benefits managers are able to extract, which we call b_p , will be limited to γ for reasons that are the same as those discussed in the case of shareholder choice. In this case, the agency problem is not eliminated when a shareholder choice regime is replaced by one that introduces a proxy contest requirement. Indeed, the only effect of the introduction of a proxy contest requirement is to raise the agency cost from b_s to $b_p = \gamma$. To demonstrate that this is so we simply replace b_s with $b_p = \gamma$ and use the same argument as that used above for the case of shareholder choice.

¹⁶ Kahan and Rock, *Corporate Constitutionalism*.

The same conclusion holds and the argument leading to this conclusion is again essentially the same as that used in the case of shareholder choice when $\gamma > b_m$ as long as γ is only slightly above b_m . When γ exceeds b_m , managers are unable to raise their private benefits to the level of γ . In this case, their private benefits will be limited to $b_p = b_m$. Recall that the agency problem can arise as long as the investment under consideration creates the possibility that bidders can obtain synergistic gains by acquiring the new assets. When γ exceeds b_m , the agency problem will arise if such bids actually present a threat to management. That will happen in this case, if the value of the potential synergies, σ_H , plus the private benefits b_m exceed the cost γ of obtaining the firm via a proxy contest; formally, if $\gamma < b_m + \sigma_H$. When this condition holds, the bidder can pay a premium for the firm that enables him to profit from a bid. Managers know that a corporate policy opportunity that raises the likelihood of there being synergistic benefits will lead to a bid. Under the new regime, the managers can thwart the bid at the tender offer stage, but the bidder will continue to the proxy contest and win control. The threat of this possibility deters the managers from making the investment and there is still an agency problem. The impact of the new legal rule is thus limited to raising the costs of a takeover, while otherwise losing the benefits of management discretion.

In the cases discussed above, the agency problem is more likely to occur because of the increase in the private benefits the managers are able to extract. As we have noted, the managers will extract

$$b_p = \min\{b_m, \gamma\} > b_s.$$

The agency problem will occur in the proxy contest regime when

$$\varphi b_p > s[(x_H + \varphi\sigma_H) - I]$$

The agency problem occurs under shareholder choice when

$$\varphi b_s > s[(x_H + \varphi\sigma_H) - I].$$

Because $b_p > b_s$, the agency problem occurs in the proxy regime whenever it occurs in the shareholder choice regime. There will be some cases in which

$$\varphi b_p > s[(x_H + \varphi\sigma_H) - I] > \varphi b_s$$

and, in those cases, the agency problem arises in a proxy contest regime but not in a shareholder choice regime.

When the value of the potential synergies, σ_H , plus the private benefits b_m exceed the cost γ of obtaining the firm by means of a proxy contest; i.e., when $\gamma > \sigma_H + b_m$, the high cost of acquiring the firm in this regime makes it impossible for the potential bidder to make a bid for the firm that exceeds its market value. This eliminates the threat of a bid. In this case, the managers can effectively say no to a bid and be assured that when they do, a proxy contest will not ensue. Since we assume efficient markets throughout the argument, the managers know this fact just as the bidder knows the value to it of the new investment made by the managers. Consequently, the managers can make the investment knowing that the costs of bidding will protect them from an uninvited tender offer. The managers will thus maximize their wealth, as in the above model, by maximizing the value of the firm without fear of a takeover. The outcome is thus the same as in management discretion.

As we have modeled this regime, it will, in some cases, operate as a management discretion regime. In other cases, it will result in outcomes that are similar to, but worse than, shareholder choice. The outcome produced in a particular case will depend on the value of the possible synergies. When synergies are likely to be large, the additional costs of the proxy contest will not be bid-discouraging and the agency costs we have discussed will occur. When synergies are likely to be small relative to the cost of acquiring the firm by means of a proxy contest, the agency problem is eliminated and the outcome is the same as in management discretion.

Which of these outcomes is most likely? Since our discussion is model-specific, we cannot draw general conclusions. In particular, our discussion does not factor in the informational effect of a proxy contest versus a tender offer. Critical to the effective workings of the legal regime is that when shareholders get the right to decide the outcome, that they be informed as possible. The disclosure rich environment of the takeover battles is the bulwark of the shareholder choice model. It is very possible that a proxy contest adds valuable information that makes mistakes less likely. If this is the case, although a layered process of a hostile tender offer followed by a proxy contest may be the most efficient rule.

5. Conclusion: Alternative Justifications for Management Discretion

In earlier papers we were among the first to provide a positive argument in support of management discretion, thus providing some structure to a Delaware rule that Ronald Gilson had labeled as lacking a justification.¹⁷ Our argument was that although markets can be assumed to be semi-strong efficient, managers may have superior information than investors as to the value of the corporation's policy opportunities. Consequently, financial markets are not strong-form efficient. Since managers value the private benefits of their position, they may adopt policy strategies that they believe are sub-optimal but that are more favored by the market. Managers may do so to forestall hostile tender offers. A legal regime of management discretion allows managers the

¹⁷ Gilson, *Unocal Fifteen Years Later (And What We Can Do About It)*.

freedom to use their superior information so as to choose the corporate policies that maximize the value of the firm and thus the shareholders' interest.

Our argument contained two separable claims—first that markets are not strong-form efficient and second that managers, using their informational advantage might choose corporate policies that entrench their positions rather than maximize the value of the firm. In this paper, using Occam's Razor, we have jettisoned the assumption of semi-strong efficiency and allow for strong-form efficiency. We have shown above that, in fact, a claim for management discretion can be based solely on the informational advantage enjoyed by managers.¹⁸

Assumptions about financial market efficiency have a central place in any discussion of the merits of management discretion versus shareholder choice. The reason as noted above is that the value of giving managers discretion to make decisions on the optimal corporate policy is that they are better informed than shareholders. If managers are not better informed, then shareholders can be given the right to make the correct decision. Hence, if financial markets become strong-form efficient in the disclosure-rich environment of a takeover battle, shareholders know as much about the value of the firm as do managers and shareholder choice would appear to be the winning argument.

In fact, the relationship between market efficiency and the appropriate legal rule for regulating defensive strategies in takeover battles is complex. Among the first claims for management discretion was the arguments advanced by Martin Lipton and his associates.¹⁹ Their argument was that financial markets were inefficient even in the midst of a takeover battle. One of us has shown that, in fact, the claim that financial markets are inefficient, perhaps paradoxically, does not favor management discretion at all.

In our earlier work and in this paper, where we assume that strong-form efficiency does not hold, we still recognize that even when the financial market doesn't immediately become fully informed it may eventually learn that information. If this is the case, the market could penalize the managers by bidding down the price of the shares, not only reflecting the value destruction of the managers' decision, but also reflecting the possibility that managers may make such poor choices again. The desired entrenchment

¹⁸ The evidence does not support strong-form efficiency and we are not proposing that it exists. Indeed there is increasing evidence that markets are not always semi-strong efficient. Campbell, Lo and MacKinlay, *The Econometrics of Financial Markets* 24-25 (Princeton Univ. Press, 1997). In their text on financial market econometrics, Campbell, Lo and MacKinlay say that "the notion of *relative* efficiency... may be a more useful concept than the all-or-nothing view taken by much of the traditional market-efficiency literature. ... For these reasons, in this book, we do not take a stand on market efficiency itself, but focus instead on the statistical methods that can be used to test the joint hypothesis of market efficiency and market equilibrium

¹⁸ We follow the conventional definitions of strong and semi-strong-form efficiency. In the latter case, all publicly available information is incorporated into stock prices. With strong-form efficiency both public and private information is incorporated into stock prices. We interpret this to mean that strong-form efficiency implies that the free cash flows from the corporation's existing assets and existing corporate policy are known to investors as well as to managers.

¹⁹ Martin Lipton and Paul K. Rowe, "Pills, Polls and Professors: A Reply to Professor Gilson," 27 *Del. J. Corp. L.* 1 (2002).

effect is lost, and the managers' income has fallen because of the decline in the value of the stock.

But a penalty is unlikely in our model because the managers adopt the corporate policies that the financial market actually prefers. The managers believe that other policies would generate higher returns but acquiesce to the market in order to reduce the risk of being taken over. The market may learn after the fact that the alternative policy being considered by management would have turned out to be better, but the market would presumably not penalize managers for adopting the strategy that they favored. In addition, it is unlikely that all the relevant information becomes known unless one assumes that the full array of corporate policies that are not adopted are eventually learned by the market.

A paper by Arlen and Talley presents an argument that is similar to those of the present paper and of our earlier papers.²⁰ They argue that, under shareholder choice, managers have an incentive to adopt takeover defenses prior to the emergence of a takeover bid and that these are effective defenses that courts cannot regulate because they are protected by the presumption of the business judgment rule and are not subject to *Unocal/Unitrin* scrutiny. The defensive measures they discuss are transaction-based business strategies, such as the sale of a valuable asset that is contingent on the occurrence of an acquisition. It thus works very much like a poison pill.²¹ Their model also assumes that markets are strong-form efficient and hence the poison pill policy would be disclosed to the market and would build into the market price.

The question is whether such defensive strategies can work? Although Arlen and Talley's discussion is similar to that of our earlier papers, there are important differences that raise interesting questions as to the importance of market efficiency and information asymmetries to the underlying argument. In Arlen and Talley, the fact that managers have destroyed firm value by choosing to make the wrong investment so as to discourage a hostile bid becomes known to the market and reduces the firm's value. It is true that Arlen and Talley consider the impact of the managers' compensation package on their incentives to adopt transaction-based defenses in each legal regime. However, it must also be noted that the class of compensation packages they consider rules out the kinds of punishments that shareholder could reasonably be expected to impose on managers who enter into such transactions. They rule out contracts that punish managers by assuming that these decisions are not contractible.

²⁰Arlen and Talley, *Unregulable Defenses* (December 2003).

²¹In their model, managers decide whether to continue with their current strategy or to switch to an alternative strategy that involves investing in an asset that must be sold if a takeover occurs. The alternative investment is sometimes more valuable than the firm's current operations and sometimes less valuable. The manager decides whether to make the investment knowing if the new investment is more or less valuable than the firm's current operations. Under management discretion the manager always make the investment decision preferred by shareholders, but under shareholder choice the manager sometimes chooses to make the investment when the shareholders prefer the continuation of current operations. The manager misbehaves in this way because he desires the protection from a hostile bid provided by the fact that the asset has to be sold when a takeover takes place.

Although it works in the Arlen and Talley model, assuming perfect non-contractibility combined with strong-form efficiency is a very unlikely combination, particularly where much of the stock is held by institutional investors. If shareholders are fully informed as to the specific value-destruction policy adopted by the managers, there would seem to be mechanisms for these fully-informed shareholders to penalize managers, whether it be from the emergence of a bid that plays on the hostility of the shareholders or an outright proxy contest.

We believe that the relevant information needed to price the corporation's current assets and future reinvestment opportunities does become known to the market. In this paper, the managers defend against takeovers in a way that the market cannot detect. The market can never learn why managers fail to make an investment. It might be because the manager knew it was a bad investment or it might be to avoid raising the risk of a takeover. Our argument, quite simply, is that even strong-form efficiency does not require that the true value of policies *not taken* be built into share prices.

In closing, we return to the starting point. Is there a conceptual underpinning for management discretion and does the conceptual framework fit with the Delaware's courts own pronouncement? We believe that the answer is yes. Delaware law has always been highly protective of the need that managers set corporate policy. Restrictions on dead-hand poison pills and the continuing statement that the managers cannot simply defend a position based on financial market share prices are examples.²²

We conclude that the ability of managers to adopt the corporate policies that they view as value-enhancing has critical benefits for shareholders. In a world of shareholder choice—which is imposed on the managers rather than being a system that they have voluntarily adopted—managers can entrench themselves in ways that are protected by the presumption of the business judgment rule and likely market forces.²³ Moreover these

²² In *Smith v. Van Gorkom*, the Delaware Supreme Court explicitly distinguished between the intrinsic value of a corporation and its market value as determined in a financial market. *Smith v. Van Gorkom*, 488 A.2d 858 (Del. 1985). Van Gorkom, the CEO of TransUnion, offered to sell the company to Jay Pritsker, a leveraged buyout specialist, for \$55 per share. The stock had been trading between the low 20s and upper 30s. The Delaware Supreme Court concluded that the board of directors was inadequately informed when they approved the agreement and that, having decided to sell the company, they should have actively solicited alternative bids.

In *Carmody v. Toll Brothers*, then Vice Chancellor Jack Jacobs concluded that a deadhand poison pill interferes with the director's statutory power to manage the business and affairs of the corporation. *Carmody v. Toll Brothers, Inc.*, 723 A.2d 1190 (Del Ch. 1998). The Delaware Supreme Court, stating that directors have an "unremitting obligation" to meet their statutory obligations under 141(a) struck down a "delayed redemption provision" as being in violation of fundamental principles of Delaware law. *Quickturn Design Systems Inc. v. Shapiro*, 721 A.2d 1281 (Del. 1998).

²³ The appeal of the Kahan and Rock defense of management discretion is that it allows the managers and shareholders to choose the system they want, Kahan and Rock *Corporate Constitutionalism*. The Kahan and Rock position is complementary to our approach. Its message is that a regime of management discretion is actually a regime that enforces what the parties choose. If parties adopt ineffective takeover defenses, they have chosen to be governed by shareholder choice and that position will be respected by the courts. If parties adopt effective takeover defenses, they have chosen management discretion, a position that deserves equal deference. But why should the courts treat deferentially the original choice of the parties? If shareholders later decide they want to be able to choose the outcome of a contested control

mechanisms are not thwarted even if markets become strong-form efficient, as that term has been used and empirically tested. Shareholders may be fully informed as to the value of the corporation's assets, but they will still not learn the full set of corporate policies that managers have failed to adopt. Alternatively, as in our earlier papers, the managers can protect themselves by managing to the market as a means of entrenchment.

battle, why shouldn't the court honor the change in position? Is the preference for enforcing prior agreement between the parties efficient or merely a legal precedent that protects private orderings?

The rationale for enforcing the pre-existing agreement is that managers need to be able to rely on it. If managers believe the corporation's certificate and by-laws puts them in a management discretion legal regime then they can make the appropriate corporate policy decisions without having to factor into their calculus the probability of a hostile tender offer. Should the applicable legal rule be alterable without management agreement, then rational managers will assume they are governed by shareholder choice and make their corporate policy decisions accordingly.

In our model, which regime is wealth maximizing depends on parameters that vary by firm and industry. One size does not necessarily fit all.