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TAKEOVER DEFENSE WHEN FINANCIAL MARKETS ARE (ONLY) RELATIVELY EFFICIENT

MICHAEL L. WACHTER[†]

INTRODUCTION

How does one value a corporation whose shares trade on a public stock exchange? To most commentators the answer to this question is straightforward: the share price measures the pro rata value of the corporation. In Delaware corporate law, however, there is an enigmatic concept of a firm's "intrinsic" or fundamental value that need not be its market value.¹ The assertion that corporations have an intrinsic value that can differ from the stock price has far-reaching implications. For example, in the case of a hostile tender offer, a board wanting to remain independent and informed as to the intrinsic value of the corporation could claim, sincerely or disingenuously, that a

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¹ In *Smith v. Van Gorkom*, 488 A.2d 858 (Del. 1985), in one sense the first of the modern takeover cases, the Delaware Supreme Court explicitly distinguished between the intrinsic worth of a corporation and its market value as determined in a financial market. *Id.* at 891. Van Gorkom, the CEO of Trans Union, offered to sell the company to Jay Pritzker, a leveraged buyout specialist, for fifty-five dollars per share based on Van Gorkom's determination of the company's intrinsic value. *Id.* at 865-67. The stock had been trading between the mid-20s and upper-30s. *Id.* at 866 n.5. 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 not have given away their right to solicit alternative bids. *Id.* at 883-84. In this respect, *Smith v. Van Gorkom* foreshadowed *Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc.*, 506 A.2d 173 (Del. 1996), where the Delaware Supreme Court held that once a company is put up for sale in an all-cash deal, management has the duty to sell to the highest bidder. *Id.* at 184 n.16.

hostile bid was inadequate even when it offered a substantial premium over the prebid market price.²

The ability of directors and managers to adopt defensive measures to fend off an unwanted hostile tender offer is reviewed under the *Unocal* standard.³ As the standard has evolved in *Unitrin*, directors and managers of a Delaware corporation have been given considerable latitude to adopt and maintain defensive measures, such as poison pills, if, for example, the board believes that the hostile bid is inadequate because it is below the intrinsic value of the corporation's assets.⁴ The latitude given to target boards of directors, however, is still very much an open question. Defensive measures must be proportional to the threat and cannot be preclusive or coercive,⁵ but there are too few cases to predict how different fact patterns might be decided. Just as undecided is the rationale behind a permissive standard of review of a target management's defensive measures.

Over the past decade, a battle has been waged in the academic and general legal literatures to either justify or vilify the settled features of the Delaware Supreme Court's takeover jurisprudence.⁶ The starting point for the debate involves the appropriate allocation of

² In this Article I do not distinguish between the role of the corporation's managers and directors. Although the differences are important, the issue does not have material implications for the Article.

³ *Unocal v. Mesa Petroleum Co.*, 493 A.2d 946, 955 (Del. 1985). This intermediate standard, at its most basic, holds that "[i]f a defensive measure is to come within the ambit of the business judgment rule, it must be reasonable in relation to the threat posed." *Id.* at 955.

⁴ *Unitrin, Inc. v. Am. Gen. Corp.*, 651 A.2d 1361, 1387 (Del. 1995). *Unitrin* added to the *Unocal* "proportionality" standard, holding that "defensive measures which are either preclusive or coercive" will be deemed "draconian," and thus will not be protected by the presumption of the business judgment rule. *Id.* at 1387-88. It went on to hold that if a defensive measure is deemed to not be draconian, "the *Unocal* proportionality test requires the focus of enhanced judicial scrutiny to shift to the 'range of reasonableness.'" *Id.*

⁵ *Supra* note 4.

⁶ The debate is summarized in the exchange of articles between Ronald J. Gilson and Martin Lipton and Paul K. Rowe. See generally RONALD J. GILSON, *UNOCAL FIFTEEN YEARS LATER (AND WHAT WE CAN DO ABOUT IT)* (Columbia Law Sch., The Ctr. for Law and Econ. Studies, Working Paper No. 177, 2000), available at <http://papers.ssrn.com/sol3/delivery.cfm/00713300.pdf?abstractid=235417>; MARTIN LIPTON & PAUL K. ROWE, *PILLS, POLLS AND PROFESSORS: A REPLY TO PROFESSOR GILSON* (NYU Ctr. for Law and Bus. Research, Working Paper No. CLB-01-006, 2001), available at http://papers.ssrn.com/paper.taf?abstract_od=268520.

power between managers and shareholders.⁷ Although the managers have authority to direct the business and affairs of the corporation under Delaware General Corporation Law section 141(a),⁸ the shareholders have the right to sell their stock.⁹ Why, or under what circumstances, should the managers' authority under section 141(a) reduce the stockholders' rights to freely alienate their shares to a willing buyer? Absent a clearly dominating statutory or caselaw interpretation to resolve the question, the focus of the debate ultimately rests on underlying fundamentals, particularly the extent to which financial capital markets are efficient.¹⁰

For purposes of this Article I differentiate between two contending positions.¹¹ One position, which I shall refer to as the "management discretion" position, has its strongest support among managers and takeover defense lawyers. They advocate that board decisions regarding tender offers should be treated the same as decisions regarding other corporate asset transactions, with the presumption of the business judgment rule¹² being applied, subject to the normal governance mechanism of the corporation, namely, shareholder election of

⁷ See GILSON, *supra* note 6, at 6 ("As a matter of corporate law, existing doctrine left wide open the crucial functional question: who should make the decision concerning the outcome of a hostile takeover bid?").

⁸ Delaware General Corporation Law is title 8 of the Delaware Code. Section 141(a) states, "The business and affairs of every corporation organized under this chapter shall be managed by or under the direction of a board of directors." DEL. CODE ANN. tit. 8, § 141(a) (2002).

⁹ See DEL. CODE ANN. tit. 8, § 159 (2002) ("The shares of stock in every corporation shall be deemed personal property and transferable as provided in [title 6, subtitle I, article 8 of the Delaware Code].").

¹⁰ Most of those who have contributed to the debate on this issue have borrowed freely from finance theory involving the workings of capital markets, particularly the efficient capital market hypothesis. The importance of assumptions regarding financial market efficiency is stressed in Lucian Arye Bebchuk, *The Case Against Board Veto in Corporate Takeovers*, 69 U. CHI. L. REV. 973, 1010-13 (2002); Bernard Black & Reinier Kraakman, *Delaware's Takeover Law: The Uncertain Search for Hidden Value*, 96 NW. U. L. REV. 521, 528-33 (2002); Jeffrey N. Gordon, *'Just Say Never?' Poison Pills, Deadhand Pills, and Shareholder Adopted Bylaws: An Essay for Warren Buffett*, 19 CARDOZO L. REV. 511, 519 (1997).

¹¹ For a clear statement of the two positions, see GILSON, *supra* note 6, which supports the efficient market theory, and LIPTON & ROWE, *supra* note 6, which criticizes Gilson's position. A middle position is taken by Marcel Kahan and Edward Rock in *How I Learned to Stop Worrying and Love the Pill: Adaptive Responses to Takeover Law*, 69 U. CHI. L. REV. 871, 930-32 (2002).

¹² 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 was in the best interests of the company. *Aronson v. Lewis*, 473 A.2d 805, 812-13 (Del. 1984).

directors.¹³ The most prominent spokesman for this group has been Martin Lipton. A central tenet of Lipton's position is that financial markets are inefficient, so there is no reason to assume that shareholders will be either adequately informed or compensated in a hostile tender offer setting.¹⁴

The current version of the management-discretion position, however, is highly incomplete and cannot withstand detailed analysis. In particular, the management-discretion model has no solution for the agency problems that arise in the hostile takeover setting. In such a situation, management and directors are conflicted and the entirely discretionary standard allows management to act in an interested fashion without a judicial check. This issue needs to be resolved in a fully developed management-discretion model.

On the other side of the debate are the great majority of academic lawyers. Viewing tender offers as a governance mechanism in their own right, they argue that such control battles should be decided in the financial markets.¹⁵ To most members of this group the idea that intrinsic value is a separable measure of value that can differ from the corporation's market value is inexplicable and simply wrong-headed.¹⁶ Although private information held by managers and directors may cause a temporary gap between fundamental value and market value, allowing managers a brief period to either inform the market or seek an alternative transaction is sufficient to bring the market back to perfect efficiency. In this case, if a hostile bidder arrives with a cash offer above the market price, the directors cannot meritoriously claim that the offer is below the intrinsic value of the corporation.¹⁷

Elements of a shareholder-choice regime can be found in Delaware Chancery Court decisions in the late 1980s, following the Delaware Supreme Court's decisions in *Revlon, Inc. v. MacAndrews & Forbes*

¹³ LIPTON & ROWE, *supra* note 6.

¹⁴ *Id.* at 28-29.

¹⁵ GILSON, *supra* note 6, at 6-7.

¹⁶ This idea is the one expressed in LIPTON & ROWE, *supra* note 6.

¹⁷ GILSON, *supra* note 6, at 9. Gilson states:

In the face of a non-coercive hostile offer, directors could respond to a belief that the price was too low—"substantive coercion" . . . by using a pill to secure the time to negotiate or seek a better offer. In the end, however, after time for negotiating and investigating alternatives, the directors could not "just say no" by declining to pull the pill, and thereby blocking the shareholders from rejecting the board's strategy and accepting the hostile offer.

Id.

*Holdings, Inc.*¹⁸ and *Moran v. Household International, Inc.*,¹⁹ with *City Capital Associates Ltd. Partnership v. Interco*²⁰ being a primary example. Under *Interco*, a target management could use its poison pill to hold off the immediate clutches of an unwanted suitor and search for an alternative transaction. But the firm, faced with a noncoercive tender offer, would eventually have to dismantle its defenses, giving shareholders the final say as to the ultimate victor in the control contest.²¹ This doctrine was overturned in *Paramount v. Time* more than a decade ago when the Delaware Supreme Court first leaned heavily toward a management-discretion position.²²

The reliance that both sides place on the workings of financial markets, although central to their positions, is left either implicit or is only inadequately developed. The same is true of Delaware caselaw, with its reliance on a concept of intrinsic value that can differ from market value. In criticizing Delaware caselaw, Ronald Gilson colorfully notes that a "statute, like a golem, requires an animating principle to come alive," and asks whether there is an "animating justification" for the current state of Delaware takeover defense jurisprudence.²³

¹⁸ 506 A.2d 173 (Del. 1986). This case held that Revlon's defensive measures were inconsistent with the directors' duties to the shareholders. *Id.* at 176.

¹⁹ 500 A.2d 1346 (Del. 1985). Here, the court affirmed the directors' adoption of a Preferred Share Purchase Rights Plan as a legitimate exercise of business judgment. *Id.* at 1357.

²⁰ 551 A.2d 787, 790-91 (Del. Ch. 1988) (holding that "the board's determination to leave the stock rights in effect is a defensive step that . . . cannot be justified as reasonable in relationship to a threat to the corporation or its shareholders posed by the offer").

²¹ The *Interco* doctrine was developed by Chancellor Allen and was applied by the Chancery Court in a number of decisions. See Ronald J. Gilson, *The Fine Art of Judging: William T. Allen*, 22 DEL. J. CORP. L. 914, 918 (1997) (explaining that "[i]n *Interco*, Chancellor Allen laid out . . . an allocation of decision-making authority among shareholders and directors when confronted with a hostile takeover," where "[d]irectors were allowed to keep a poison pill in place while alternatives were investigated, but . . . shareholders had the final say over whether to accept the offer").

²² The Delaware Supreme Court stated that *Interco* represents a fundamental misconception of our standard of review under *Unocal* principally because it would involve the court in substituting its judgment as to what is a 'better' deal for that of a corporation's board of directors. To the extent that the Court of Chancery has recently done so in certain of its opinions, we hereby reject such approach as not in keeping with a proper *Unocal* analysis.

Paramount Communications, Inc. v. Time, Inc., 571 A.2d 1140, 1153 (Del. 1989).

²³ More fully, Gilson states "[t]he statute, like a golem, requires an animating principle to come alive But *Unitrin's* effective abandonment of *Unocal's* regulatory

In this Article, I take on the task of exploring the lessons of corporate finance as they relate to the question of contested control transactions. Does finance theory provide some foundations for an animating justification for Delaware takeover defense jurisprudence? I answer this question in the affirmative with the starting point that intrinsic or fundamental value is indeed a viable concept that is separable from market value. I then develop the implications of two alternative views of financial market efficiency.

If financial markets are entirely efficient—the prevailing assumption in the shareholder-choice literature—then the shareholder-choice theory of takeover jurisprudence is clearly the winning argument. If financial markets are efficient, then any hostile bid above market value moves assets to more valued uses, enriches shareholders, and, perhaps most important, disciplines managers to manage the corporation on behalf of shareholders.

The same is not true if financial markets are *only relatively* efficient.²⁴ I use the term relatively efficient to signify the prevailing view in the financial market literature that market efficiency, like perfect competition, is an ideal that is unattainable as long as there are market frictions. Specifically, when financial markets are relatively efficient, while investors cannot expect to outperform the market on an ongoing basis, individual stock prices can still be incorrect at any point in time—either under- or overestimating the value of the corporation.²⁵

The failure of financial markets to correctly price the pro rata value of the corporation is shown primarily by the inability of existing models²⁶ to generate a reliable estimate of the appropriate discount rate or market capitalization rate for equity capital on a continuing basis. This rate is a critical building block in determining the company's cost of capital, which in turn drives the firm's capital expendi-

function brings us back to the need for an animating justification: why should the court prefer elections to markets?" GILSON, *supra* note 6, at 19.

²⁴ In their text on financial market econometrics, John Campbell, Andrew Lo, and A. Craig MacKinlay say that

[t]he 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.

JOHN Y. CAMPBELL ET AL., *THE ECONOMETRICS OF FINANCIAL MARKETS* 24-25 (1997).

²⁵ See *id.* (discussing reasons why stocks cannot "reach[] a perfect efficiency benchmark").

²⁶ For an example of one such model, see *infra* note 35 and accompanying text.

ture investment decisions. It is also the rate investors use to discount the future dividends that the corporation is likely to pay, hence determining the stock market valuation of the company's shares. If the market generates an incorrect or imprecise market capitalization rate, the market's valuation of the company's common stock is likewise incorrect or imprecise.

I next explore the requisite features of financial markets that can lead to the conclusion that shareholders might be better served by a legal regime of management discretion in determining the outcome of hostile tender offers. First, any underpricing of a company's share price by the financial market is temporary so that the stock price ultimately returns to the correct level.²⁷ Second, due to the presence of asymmetric information, management may be better informed than the market as to the correct market capitalization rate. Third, management's superior information may be difficult to communicate to financial markets in a manner that is verifiable by the market so as to be incorporated into stock prices.

When financial markets are only relatively efficient, hostile tender offers that are above market prices but below fundamental value can succeed. Although the market for corporate control in the form of competitive bidding for target firms may mitigate this underpricing, it is unlikely to entirely eliminate it. Given these results, the signal conveyed by the market for corporate control is, at best, highly noisy and unreliable and, at worst, can distort the decisions made by managers prior to the emergence of a hostile bid.

The final critical step is to recognize that the failure to resolve agency cost difficulties is not solely a weakness of the management-discretion model. Instead, each legal regime creates its own agency problems. A shareholder-choice standard can lead managers to respond to a threat of takeovers, not by managing better, but by "managing to the anomaly." That is, the managers adopt strategies that make it less likely that the firm's stock will become underpriced, thereby making the firm less attractive to a hostile bidder, even though the effect is to reduce the ultimate value of the corporation. There are a variety of ways in which this phenomenon might be manifested.

²⁷ I am therefore assuming that the capital asset pricing model (CAPM), or one of the alternative mean-variance theories, is, in fact, correct and hence, the fundamental value of the corporation is determined by the true mean-variance formulation.

The most straightforward example would be a company that decided to sell a particular asset that it believed was the source of the underpricing and where the sale price was below management's estimate of the true value of the asset. Another example is where managers avoid investments in firm-specific, long-lived assets for which the discount rate is dependent on firm product market data that is not verifiable by financial markets. Although the investment would increase the value of the corporation, it would make the firm more vulnerable to market mispricing and hostile tender offers. Finally, managers might invest in assets that play to market fads, in the hope that their stock would become overpriced. Adopting strategies that lead the company stock to be overvalued is the ultimate takeover defense. As an extra benefit, the inflated currency can turn the potential target into a bidder.

Should companies take such actions? What does the faithful fiduciary do? For those who believe that financial markets are always efficient, management should manage to the stock market signals. Since there are no anomalies, all signals are accurate. But if markets are only relatively efficient and managers believe, based on their own information, that certain actions reduce the ultimate value of the corporation, then the manager, as faithful fiduciary, would not make those investment decisions.

When financial markets are only relatively efficient, legal decision makers face a tradeoff. Standards promoting shareholder choice solve the agency costs of managers who might attempt to entrench themselves once a hostile bid has been made. However, those standards create incentives for managers to adopt strategies that make hostile bids less likely to occur, even if those strategies reduce the ultimate value of the corporation to the shareholders. Standards promoting management discretion have the reverse set of incentives. The current Delaware Supreme Court standard that allows for management discretion resolves the tradeoff by encouraging faithful managers to maximize the value of the corporation, but at the cost of allowing the faithless managers to entrench themselves by rejecting hostile tender offers that are truly above the firm's fundamental value.

I. THE CONCEPT OF FUNDAMENTAL OR INTRINSIC VALUE

As a matter of definition, economists refer to an item's market price as its value.²⁸ In a full-information equilibrium, the market price is the price that equilibrates supply and demand, and it is the price at which exchange takes place. Most economic modeling is within the confines of equilibrium models, and in such a context "intrinsic value" is the same as market value. Hence, if directors wanted to find out the value of the corporation, they need only refer to the stock market price. In this context, judicial instructions to boards of directors to be informed as to the intrinsic value of the corporation seem quaint and artificial. From the perspective of the firm, however, the concept of fundamental value is well-defined and is measured by the discounted free cash flow generated by the company's assets.

The term intrinsic value, although used frequently in Delaware corporate law, is not singularly defined. A reasonable place to look for guidance is the appraisal remedy, where shareholders in a company involved in a merger or consolidation for which the appraisal remedy is available have a right to be paid the fair value for their stock.²⁹ The problem with seeking guidance from this arena is that for years the methodology used for calculating the fair value of a Delaware corporation was the anachronistic "Delaware block" method.³⁰ The Delaware block method relied on a number of factors, including the stock price and the corporation's book value, to place a fair value on the corporation.³¹ A weighting of the various factors included in

²⁸ See, e.g., PAUL A. SAMUELSON & WILLIAM D. NORDHAUS, *ECONOMICS* 421 (14th ed. 1992) (describing market prices as a measuring rod for dollar values).

²⁹ Access to appraisal is available in three circumstances: (1) mergers involving close corporations, DEL. CODE ANN. tit. 8, § 262(b)(1) (2002); (2) in situations in which the consideration to be paid to shareholders is something other than stock (e.g., cash), § 262(b)(2); and (3) short-form mergers (squeeze-out mergers subject to the section 253 merger provision of the Delaware General Corporation Law), § 262(b)(3). Section 262(h) of the Delaware General Corporation Law sets forth procedures the court shall follow after determining that shareholders are entitled to an appraisal.

³⁰ E.g., *Weinberger v. UOP, Inc.*, 457 A.2d 701, 712 (Del. 1983); see also John C. Coates IV, "Fair Value" as an Avoidable Rule of Corporate Law: *Minority Discounts in Conflict Transactions*, 147 U. PA. L. REV. 1251, 1265 (1999) (describing this method).

³¹ See *Tri-Cont'l Corp. v. Batty*, 74 A.2d 71, 72 (Del. 1950) (listing the factors that make up a company's true or intrinsic value); see also *In re Radiology Assocs., Inc.*, Litig., 611 A.2d 485, 496 (Del. Ch. 1991) ("The Delaware Block Method actually is a combination of three generally accepted methods for valuation: the asset approach, the market approach, and the earnings approach."), quoted in *Paskill Corp. v. Alcoma Corp.*, 747 A.2d 549, 555 (Del. 2000).

the block method represented the court's valuation of the corporation, and the determined amount was awarded to shareholders who had standing to seek the appraisal remedy. Since the block method was divorced from modern financial valuation methods, the legitimacy of the Delaware courts' pronouncements on valuation suffered accordingly.

The block method, however, was replaced during the 1980s by a more flexible method for valuation that specifically called for the inclusion of prevailing methods in corporate finance for calculating fair value.³² In determining the corporation's intrinsic value, the Chancery Court was instructed to consider "techniques or methods which are generally considered acceptable in the financial community."³³ The court has now thrown in its lot with the modern teachings of corporate finance.

The concept of the fundamental value of a firm is core in corporate finance. The firm is a collection of projects, each with its tangible and intangible assets, and each project has a present value based on the discounted stream of future free cash flow that it produces. The method for calculating the discounted free cash flow generated by a project is well established and there is less freedom to use arbitrary devices in its calculations than is true in calculating accounting earnings. The formula for determining discount cash flow can be written as:

$$PV = \sum_i \frac{FCF_i}{(1+r)^i} \quad (1)$$

where *FCF* is the free cash flow in each year and *r* is the discount rate. The free cash flow depends on factors such as product sales and prices and costs over the life of the project. The discount rate measures the company's cost of capital and is used to calculate the present value of the future cash flow generated by the company's assets. The appropriate discount rate in all cases measures the systematic or market risk of the investment and reflects the covariance of the investment's re-

³² See *Weinberger*, 457 A.2d at 713 (critiquing the "Delaware block" method and calling for the introduction of a more modern approach to valuation).

³³ *Id.* These methods included "all factors and elements which reasonably might enter into the fixing of value," including "market value, asset value, dividends, [and] earning prospects." *Tri-Cont'l Corp.*, 74 A.2d at 72, quoted in *Weinberger*, 457 A.2d at 713. For an excellent article on the appraisal remedy, see Coates *supra* note 30.

turns with the returns on economy-wide assets.³⁴ The resulting *PV* of equation (1) is the fundamental value of the corporation.

Financial market outcomes affect the fundamental value of the company through the discount rate. The most widely accepted theory for determining the discount rate is the capital asset pricing model of Sharpe-Lintner (CAPM). In this formulation, the company's discount rate or market capitalization rate for equity capital is determined from the following:

$$r = r_f + \beta (r_m - r_f) \quad (2)$$

where r_f is the risk free rate of return in the economy, r_m is the return on the market, and β (beta) measures the covariance of the company's return with the market's return and is assumed to be a complete measure of the risk of investing in the company.³⁵ The term r is the company's market capitalization rate and, in the all-equity-financed firm, is the discount rate used to discount future free cash flows to their present value.³⁶ In a company with a single-asset, or in a company with several general rather than company-specific assets, the r that is determined from equation (2) is indisputably the company's appropriate discount rate.

In a company with many assets or projects, each asset has a different discount rate attached to it. Asset-specific discount rates reflect first and foremost real (rather than financial) market considerations, including the cyclical nature of the revenue generated by the asset and the operating cost leverage reflecting the ratio of fixed to variable costs. The discount rate appropriate for individual assets or projects can be higher or lower than the company's cost of capital if the project is more or less risky than the company's portfolio of projects. In equilibrium, there is no difference between the covariance of real assets with economy-wide assets and the covariance of the company's financial assets with economy-wide financial assets. Applying this analysis,

³⁴ The only risk that affects the discount rate is the systematic risk of the project. Idiosyncratic risk does not affect the discount rate because it can be pooled away by investors. The term beta (β) is often used to connote the covariance of the project return.

³⁵ The initial presentations of CAPM can be found in John Lintner, *The Valuation of Risk Assets and the Selection of Risky Investments in Stock Portfolios and Capital Budgets*, 47 *REV. ECON. & STAT.* 13 (1965); William F. Sharpe, *Capital Asset Prices: A Theory of Market Equilibrium Under Conditions of Risk*, 19 *J. FINANCE* 425 (1964).

³⁶ RICHARD A. BREALEY & STEWART C. MYERS, *PRINCIPLES OF CORPORATE FINANCE* 195 (6th ed. 2000).

the corporation's cost of capital is then calculated as a weighted sum of the project-specific discount rates.³⁷ In turn, the corporation's fundamental value is a sum of the free cash flows generated by the company's assets.

Disagreements between the corporation and the financial market as to the value of the corporation can arise from two sources: disagreements about the future cash flows and disagreements about the discount rate. It is at least arguable that disagreements over cash flows between the company and the financial markets can be minimized by full disclosure of the company's private information to the financial markets. Cash flows depend on factors such as sales, product prices, and costs. These three variables are subject to some reasonable degree of verification if disclosed by the company. The firm's sales projections can be tested against outside estimates of the size of the market into which the firm sells its product. Product price projections can be tested against existing product prices and market views as to how product prices are likely to change. Finally, cost data can be similarly verified by using publicly certified cost statements and projecting these data forward based on reasonable estimates of changes in productivity. Consequently, disagreements over cash flows between the company and the market are less likely to persist in a situation where the company provides proprietary information to outsiders who might be willing to bid for the company.

What about differences with respect to the discount rate? The answer to this question depends in part on the validity of CAPM, the theory that generates the discount rate. If CAPM were robust in statistical tests, there would be little or no room for disagreement as to the company's market capitalization rate. The market capitalization rate would be determined from equation (2), and the fundamental value of the corporation by equation (1). On the other hand, if statistical tests were to show that CAPM did not accurately predict future returns, then one might conclude that the financial-market-determined

³⁷ Given the difficulties of estimating beta, firms often calculate the rate of return of the project, then determine whether this rate of return meets the firm's target rate of return, which it views as appropriate for this type of project. For a discussion of this issue, see RAVI JAGANNATHAN & IWAN MEIER, DO WE NEED CAPM FOR CAPITAL BUDGETING? 6-8 (Nat'l Bureau of Econ. Research, Working Paper No. 8719, 2002), at <http://www.nber.org/papers/w8719.pdf>.

discount rate, and hence the stock price, did not reflect the pro rata value of the corporation.³⁸

In the latter case, a company making a specific project investment decision might well conclude that its own product market information, based on the covariance of asset-generated revenue with economy-wide revenue, should be used in calculating the appropriate discount rate for the project. If this were to occur, the company's estimate of the discount rate might be more reliable than the market's estimate.

The ability of a company to disclose its private information on its market capitalization to financial markets is likely to be more difficult than disclosure about cash flows. There are two reasons why this would be the case. First, the company's disclosure of project betas is information that the financial markets would find difficult to verify depending, as it does, on company-generated estimates of the covariance of the product market revenue and economy-wide returns. Second, the financial markets have already generated their own estimate of the market capitalization rate through their estimate of beta or the covariance in the company's stock returns and the market returns. The markets are likely to believe their own estimate of the volatility in the company's discounted free cash flow.

Disagreements between corporations and financial markets with respect to their estimates of the market capitalization rate are likely to affect firms differentially. Market and firm estimates are likely to be similar the more closely the assets of the corporation resemble assets held elsewhere. For example, financial markets can easily determine the appropriate discount rate for a real estate investment trust, because the underlying assets are bought and sold in real or tangible markets as well as financial markets. With agreement on the price and cash flows, one can obtain an estimate of the embedded discount rate and use that information to narrow the range of estimates obtained through the CAPM methodology. However, if company assets are specific to the company, then this route for gaining information on the discount rate is foreclosed. Consequently, imprecision in CAPM will most affect firms with specific assets valuation. Additionally, where assets are more long-lived, problems with CAPM are accentuated.

³⁸ See Eugene F. Fama & Kenneth R. French, *Industry Costs of Equity*, 43 J. FIN. ECON. 153, 178 (1997) (concluding that there is uncertainty about the true asset pricing model and that estimates of the cost of equity are "distressingly imprecise").

ated. Because the discount rate compounds each year, imprecision compounds over more periods in which the discounting is done.³⁹

The upshot of this discussion is to answer the first question posed by the Article: Is there a concept of intrinsic value of a corporation that is separable from the market value? The answer is clearly "yes." The capital expenditure decisions of the firm generate a collection of assets that carry with them a set of asset betas or discount rates and cash flows. Estimates of cash flows, but more likely of discount rates, can differ between the corporation and financial markets. Differences in estimates of cash flows or discount rates can generate different estimates of the value of the corporation. For example, a higher market capitalization rate will lead to lower discounted future cash flows generated by the company's assets and, hence, the value of the corporation will be lower.

What should be made of the differences in estimates? For example, should the company make investment decisions on the basis of its own estimate of its market capitalization rate or should it adopt the market's estimate? This is, after all, the critical question. At the core of the firm are the tangible and intangible assets over which the firm has rights of residual control.⁴⁰ The managers and directors, in deciding on the assets in which to invest or sell, are determining the corporation's future value. As fiduciaries they have an obligation to act on their beliefs and this may mean acting on estimates of discount rates or cash flows that differ from market estimates. In doing so they are maximizing the future value of the corporation. In short, ignoring the information embedded in current stock prices may result in a higher future stock price when the financial market is efficiently pricing the corporation's assets.

³⁹ Although specific assets are more likely to lead to disagreements between the managers and the market over the value of the corporation, it certainly cannot be argued that disagreements over potential mispricing is the only factor that determines the intensity with which firms adopt antitakeover defenses. For example, Robert Daines and Michael Klausner argue that companies with high research and development (R&D) are less likely to have staggered boards. Robert Daines & Michael Klausner, *Do IPO Charters Maximize Firm Value?: Antitakeover Protection in IPOs*, 17 J.L. ECON. & ORG. 83, 103 (2001). While R&D is only one aspect of specificity, it suggests that companies adopt defenses for reasons unrelated to mispricing.

⁴⁰ See Oliver Hart, *An Economist's Perspective on the Theory of the Firm*, 89 COLUM. L. REV. 1757, 1765-66 (1989) (discussing a property rights approach to the firm); Edward B. Rock & Michael L. Wachter, *Islands of Conscious Power: Law, Norms, and the Self-Governing Corporation*, 149 U. PA. L. REV. 1619, 1634 (2001) (describing the intuition that "nonhuman capital is the 'core' of the firm").

II. MARKET EFFICIENCY: A BRIEF REVIEW

To talk coherently about capital market inefficiencies one needs to have a model that specifies the attributes of an efficient market. A useful definition is the following one offered by Burton G. Malkiel:

A capital market is said to be efficient if it fully and correctly reflects all relevant information in determining security prices. Formally, the market is said to be efficient with respect to some information set . . . if security prices would be unaffected by revealing that information to all participants. Moreover, efficiency with respect to an information set . . . implies that it is impossible to make economic profits by trading on the basis of [that information set].⁴¹

Economic profits are distinguished from accounting profits in that economic profits measure excess or abnormal return. Earning economic profits in security markets means that profits are above the market rate of return. Consequently, an efficient capital market is one where economic profits do not exist.

The Efficient Capital Market Hypothesis (ECMH) is typically defined in terms of three alternative, progressively more inclusive information sets that are available to investors.⁴² The first, or weak form, defines market efficiency in terms of past market prices. The market is efficient according to the weak form if investors cannot predict future stock price movements based on an information set containing all past price movements. The second, or semi-strong form, defines market efficiency in terms of all publicly available information. The market is efficient according to the semi-strong form if current market prices contain not only all the information from past market prices, but also all current publicly available information. The third, or strong form, adds nonpublic information as part of the information set. Markets are efficient according to the strong form if stock prices include all nonpublic information as well as public information. Consequently, if the strong form were to hold, an investor who was privy to both private and nonprivate information could not consistently earn abnormally large investment returns.

The next step is to define abnormal returns. What does it mean to earn abnormal returns or, as more popularly described, to outper-

⁴¹ Burton G. Malkiel, *Efficient Market Hypothesis*, in 1 THE NEW PALGRAVE DICTIONARY OF MONEY AND FINANCE MARKETS 739, 739 (Peter Newman et al. eds., 1992), cited in CAMPBELL ET AL., *supra* note 24, at 20.

⁴² See, e.g., Malkiel, *supra* note 41, at 739-41 (describing the three information sets).

form the market? Among financial assets, stocks have systematically outperformed bonds, and bonds have systematically outperformed cash assets. As a result, mutual funds that invest entirely in stocks have systematically outperformed bond mutual funds. It is well understood, however, that this outperformance does not reject the hypothesis of market efficiency. Instead, abnormal returns are defined on a risk-adjusted basis.

The ECMH itself, however, does not contain a measure of risk and consequently must be conditioned on a theory that does conceptualize and measure risk. CAPM is most frequently used for this purpose.⁴³ The CAPM defines abnormal returns as a function of the single risk factor, beta, which measures the stock's contribution to the systematic risk in a portfolio.⁴⁴ But other models, typically extensions of CAPM such as the three-factor CAPM,⁴⁵ have also been used.

Ronald J. Gilson and Reinier H. Kraakman wrote the classic article of ECMH in legal scholarship.⁴⁶ They noted that "[o]f all recent developments in financial economics, the [ECMH] has achieved the widest acceptance by the legal culture[,] . . . [and] is now *the* context in which serious discussion of the regulation of financial markets takes place."⁴⁷ It is worth noting that the Gilson and Kraakman article appeared in a symposium volume on the Securities and Exchange Act⁴⁸ and applied the ECMH theory explicitly to a range of issues in securities regulation. In fact, most of the legal scholarship involving the ECMH has involved the application of the theory to securities regulation.⁴⁹ In this application, very little attention has been paid to the CAPM component of the theory.

⁴³ For examples where CAPM provides a theory of risk upon which ECMH relies, see Lintner, *supra* note 35, at 19-22; Sharpe, *supra* note 35, at 436-42.

⁴⁴ Sharpe, *supra* note 35, at 440.

⁴⁵ Other examples of such multi-factor models include the Arbitrage Pricing Theory (APT) and the Intertemporal Capital Asset Pricing Model (ICAPM). CAMPBELL ET AL., *supra* note 24.

⁴⁶ *The Mechanisms of Market Efficiency*, 70 VA. L. REV. 549 (1984).

⁴⁷ *Id.* at 549-50.

⁴⁸ Symposium, *Contemporary Problems in Securities Regulation*, 70 VA. L. REV. 545 (1984).

⁴⁹ For examples of scholarship that develop the connection between ECMH and securities regulations, see FRANK H. EASTERBROOK & DANIEL R. FISCHER, *THE ECONOMIC STRUCTURE OF CORPORATE LAW* (1991); Robert M. Daines & Jon D. Hanson, *The Corporate Law Paradox: The Case for Restructuring Corporate Law*, 102 YALE L.J. 577 (1992); Marcel Kahan, *Securities Laws and the Social Costs of 'Inaccurate' Stock Prices*, 41 DUKE L.J. 977 (1992); Donald C. Langevoort, *Theories, Assumptions, and Securities Regulation: Market Efficiency Revisited*, 140 U. PA. L. REV. 851 (1992).

Ignoring CAPM in the context of securities regulation is understandable. The evidence from the finance literature is supportive, although not uniformly, of the weak and semi-strong forms of the ECMH as applied to stock markets, across a range of alternative theories used to describe risk. If stocks follow a random walk over time, then all investors are on an equal footing. As such, time series tests of the ECMH hypothesis provide a direct test of whether financial markets are level playing fields, the primary goal of the Securities Exchange Commission and its disclosure and enforcement apparatus. It matters little that the evidence on CAPM is weak as long as the results needed for securities regulation are robust across competing theories.

The strong form of ECMH, that the market prices incorporate private as well as public information, has been rejected.⁵⁰ Insiders, either as individuals or as the corporate entity, can outperform the market in a number of critical areas. That the company and its officers have an asymmetric informational advantage over the market is hardly surprising. There is no requirement either under federal securities law or under state corporate law that the corporation needs to disclose all relevant information. The corporation needs to maintain informational privacy over a host of data that is relevant to its competitive position. The SEC can hardly regulate away asymmetric information. What it does do, through its “disclose or abstain” policy,⁵¹ is to prevent the use of private information, particularly on the part of individual officers and certain informed outsiders. Consequently, rejection of the strong form of ECMH is not in itself a problem. A problem would occur only if asymmetric information resulted in a substantial amount of trading by informed insiders.

Over the past decade, the debate over market efficiency has grown more contested. Most researchers now agree that financial returns are predictable to some degree, even after controlling for risk as defined in the existing models.⁵² Predictability represents an anomaly since it is unexplained by ECMH. However, as will be discussed below, the general consensus among researchers is that some degree of predictability is consistent with ECMH, as a reward for incurring informa-

⁵⁰ STEPHEN A. ROSS ET AL., *CORPORATE FINANCE* 359 (6th ed. 2002).

⁵¹ This policy imposes no affirmative obligation on insiders to disclose nonpublic information. Instead, it prevents those who do not disclose from trading on such information. For an example of this policy being applied, see *SEC v. Tex. Gulf Sulphur Co.*, 401 F.2d 835 (2d Cir. 1968).

⁵² Examples of such scholarship include CAMPBELL ET AL., *supra* note 24; ANDREW W. LO & A. CRAIG MACKINLAY, *A NON-RANDOM WALK DOWN WALL STREET* (1999); ROBERT J. SHILLER, *MARKET VOLATILITY* (1989).

tion costs and for assuming certain types of risk associated with the trading necessary to keep markets efficient.⁵³ In this respect, discovery of anomalies has not changed the debate concerning ECMH and the success of securities regulation.

Issues involving the governance of corporations, however, turn less on ECMH and more on CAPM. It is CAPM that generates the discount or market capitalization rate that is used to discount the future free cash flow generated by the company's assets. Consequently, it is CAPM that generates the prediction of the price at which the corporation's assets should trade in public financial markets. Markets can be informationally efficient in the sense that informed traders cannot outperform the market while individual securities are mispriced according to CAPM. If CAPM inaccurately or imprecisely predicts individual stock returns, then one is more likely to conclude that market prices do not equal the discounted cash flow generated by the company's assets.

In fact, there is substantial statistical evidence that is inconsistent with CAPM. CAPM does not robustly explain cross sectional returns to groupings of companies. Due to data restrictions, the theory cannot be tested on individual security prices. Exactly how the evidence should be interpreted within the confines of financial models is greatly debated.⁵⁴ The CAPM currently in use is a single-factor model. Other models that allow for more factors or for time-varying factors have also been tested, but the evidence remains highly mixed.⁵⁵ With these doubts in mind, I return to the current debate in the corporate law literature, wherein the problems with the underlying CAPM/ECMH models have been insufficiently recognized.

III. ALTERNATIVE POSITIONS: SHAREHOLDER CHOICE VERSUS MANAGEMENT DISCRETION

The two well-articulated positions over the appropriate legal standard for evaluating hostile tender offers are armed with strongly held views on the efficiency of capital markets. The articulated parts of the respective positions deal heavily with the appropriate allocation of power between shareholders and managers, but very little with the question of capital market efficiency. In this Part, I will deal only with

⁵³ CAMPBELL ET AL., *supra* note 24, at 20-25.

⁵⁴ This point is made by, among others, Campbell, Lo, and MacKinlay. *Id.*

⁵⁵ Fama & French, *supra* note 38, at 154-58.

the latter: the lessons to be learned from current perspectives on capital market efficiency within the takeover debate.

A. *The Argument for a Shareholder-Choice Takeover Standard*

A legal standard giving shareholders more power to decide contested control transactions has been widely favored in the academic literature dealing with takeover defenses.⁵⁶ Shareholders would get to decide the outcome of contested control transactions involving a hostile tender offer, and they would get to make their decision in the capital market by tendering or not tendering their shares. Depending on the particular version of the argument, management might have the power, as it would under *Interco*, to postpone the decision while it seeks to structure an alternative transaction. In the “director passivity” model, the original pro-shareholder power argument, management would not have even had that degree of discretion.

Easterbrook and Fischel first advanced the director passivity argument in their book *The Economic Structure of Corporate Law*.⁵⁷ Although their specific articulation of the theory is not popular today, their argument explicitly developed the underlying financial market claims that provided the basis not only for that model, but also for the pro-shareholder models that followed.

The bedrock principle that motivates the director passivity argument is that stock market prices reflect the value of the assets deployed by target directors.⁵⁸ Markets are not only informationally efficient, they are also fundamentally efficient. If this is correct, then any bid at a premium to the market prices means that the bidder can deploy those assets at greater value than the target managers can.⁵⁹ All else follows from this claim of market efficiency.

⁵⁶ Scholarship that takes this position includes EASTERBROOK & FISCHEL, *supra* note 49, at 79-80; GILSON, *supra* note 6, at 21-28; Bebchuk, *supra* note 10, at 798; Black & Kraakman, *supra* note 10, at 978; John C. Coffee, Jr., *The Bylaw Battlefield: Can Institutions Change the Outcome of Corporate Control Contests?*, 51 U. MIAMI L. REV. 605, 605-06 (1997); Ronald J. Gilson & Reinier Kraakman, *Delaware's Intermediate Standard for Defensive Tactics: Is There Substance to Proportionality Review?*, 44 BUS. LAW. 247, 247 (1989); Gordon, *supra* note 10, at 539-44. For a highly favorable discussion of *Interco*, the primary example of the shareholders-choice standard, see Vice Chancellor Strine's discussion in *Chesapeake Corp. v. Shore*, 771 A.2d 293 (Del. Ch. 2000).

⁵⁷ EASTERBROOK & FISCHEL, *supra* note 49.

⁵⁸ *Id.*

⁵⁹ Easterbrook and Fischel argue:

Market price reflects the value of assets as deployed by the incumbent managers. That the bid occurs at a premium over the market-price indicates that re-

The next step is to note that the successful bidder will scrutinize target management and bid for the firm that is given a low valuation by the market compared to the bidder's own estimate of the firm's asset value.⁶⁰ This can occur for two primary reasons: A bidder may merge the target's assets with its own, thereby creating a more valuable entity. Alternatively, agency costs may lead target managers to either underperform or divert corporate resources to their own use. This is likely in a world with dispersed ownership that creates free-rider problems that curtail the ability of rational small shareholders to monitor management.

The final step is the big legal policy payoff. If agency costs are large, then investors and society benefit from an open market for corporate control because it will help discipline managers who might favor their own interests over those of the firm and the shareholders as the residual claimants. Managers will be more reluctant to take purely self-serving actions because doing so might cost them their jobs. The more unrestrained the market for corporate control, the more restrained managers would be in adopting self-interested policies.⁶¹

This point is critical and a great deal rests on it. Managers will respond to whatever legal incentives are created in a manner that reduces the possibility of being taken over. If the rules "get it right," managers respond by being more efficient. But if the rules "get it wrong," managers respond by becoming less efficient.

The director passivity theory fell out of prominence with empirical evidence finding that the use of the poison pill led to transactions with higher returns to shareholders.⁶² If providing managers with a window to find an alternative transaction was in fact paying off, the academic theory responded by allowing additional time. The upshot

vamping the target's structure or management would generate private and, in all likelihood, social gains. Successful resistance frustrates the achievement of these gains. Consequently managers should remain passive and let investors decide whether to tender.

Id. at 171.

⁶⁰ *Id.* at 172-73.

⁶¹ According to Easterbrook and Fischel,

[i]nvestors benefit even if their corporation never becomes the subject of a tender offer. The reality and prospect of monitoring by outsiders poses a threat of takeover if performance lags. Managers must attempt to improve the firm's performance, which leads to higher prices for shares and so reduces the chance of takeover.

Id. at 173.

⁶² Robert Comment & G. William Schwert, *Poison or Placebo? Evidence on the Deterrence and Wealth Effect of Modern Antitakeover Measures*, 39 J. FIN. ECON. 3 (1995).

was the coalescing of academic support behind the Delaware Chancery Court's *Interco* doctrine.

Under *Interco*, 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, including to the existing management team, should they mount a management buyout (MBO), unless the shareholders could be quickly convinced to value the current earnings prospects of the firm more highly.⁶³ Other aspects of the original pro-shareholder position were retained. First, in the setting of contested control transactions, management would have a conflicting interest—namely fear of being ousted—and would respond by protecting their own interests rather than those of shareholders. Second, since capital markets are efficient, the share price of the firm either equals, or is the best estimate of, the pro rata discounted free cash flow of the corporation's assets.⁶⁴

A question posed by the use of ECMH is why, if a company's stock were correctly valued, would a bidder want to pay an above-market price? Take the case of the firm with inferior albeit faithful managers who unfortunately made bad investment decisions resulting in a firm with a collection of assets that cannot earn a competitive return. In such a case, the firm has a low stock price correctly reflecting the market's unfavorable assessment of the firm's future growth potential. There is no reason for a bidder to emerge in such circumstances and any bid above the market price is too high a bid. Saving the company would be difficult because at its core are bad assets. Consequently, in an efficient market, no bids above market value will emerge.

However, bidders can emerge in a perfectly efficient capital market in a number of circumstances. The easiest case is the strategic merger that realizes horizontal or vertical economies-of-scale or scope. As in the above case, the target firm is correctly valued operating as an independent company. In such a case, the bidder may know, based on inside information, that a merger between it and the target would increase the market value of the combined companies. Such strategic mergers are indeed value enhancing, and because they create new value, they pose no problem for the ECMH model. But this is not the

⁶³ In *Interco*, Chancellor Allen gave shareholders the authority to make decisions involving contests for control. See Gilson, *supra* note 21, at 918 (discussing *Interco*, and noting its result that “[d]irectors were allowed to keep a poison pill in place while alternatives were investigated but, in the end, shareholders had the final say over whether to accept the offer”).

⁶⁴ This point is developed in Gordon, *supra* note 10, at 512-13.

case around which the shareholder-choice camp has built its theory because, until management attempts to defend itself, there are no inherent agency cost issues.

A second example does fit the agency cost case: the firm with good assets and bad managers. Bad managers are more likely to invest in bad assets than good ones. So this example requires a more complex fact pattern to be true. The nagging question to be answered is how the firm managed to put together a good set of assets in the first instance since this is no easy accomplishment. The generic fact pattern will have a good manager turn bad. A number of stories can be built around this line. One story has a well-managed company for one generation of managers that is undermanaged in the next generation. Another story has successful managers who build a well-functioning asset base and then faithlessly divert the benefits to their own use. In all stories, the plot has the same features: successful asset accumulation followed by the underutilization of those assets.⁶⁵

The capital market correctly understands that the assets in such cases are good assets. But since the market believes that the firm will continue to be undermanaged, the stock price is below what the value of the assets in the hands of good managers would be. Now the bidder can arrive, ferret out the "hidden jewels," as they were referred to during the 1980s, and make a bid. In a corporate law regime that is supportive of hostile bids, undermanaged companies will trade at higher prices than otherwise, reflecting the likelihood of the takeover. But assuming that the probability of a merger is perceived to be less than one, a bidder can emerge and pay a premium price.

Now add an *Interco*-type standard governing takeover defenses into an efficient market and one has a greatly improved world. Efficient capital markets guarantee that bids above market move assets to their valued use; that shareholders aid more than the value of the assets; and that only faithless managers will lose their jobs, thus providing an incentive to all other managers to manage faithfully.⁶⁶ An *Interco*-style rule allows these mergers to happen; provides protection against co-

⁶⁵ Another variant is the case where bad assets become good assets because of fortuitous changes in the external environment.

⁶⁶ One has to be careful in using capital market efficiency arguments to develop theories about how corporate managers will respond to a set of incentives. The CAPM/ECMH theory is a theory about investor behavior in the capital market. It does not contain a theory of the firm. Take the statement: "Managers operating under an *Interco*-style legal rule in an efficient capital market will respond by managing better." This is a conjecture, and one might or might not be able to construct a theory of the firm that reaches that conclusion.

ercive bids; and, by providing managers with an opportunity to structure alternative transactions, encourages an auction process which supports market efficiency.

Obviously, this does not solve all problems. Bad managers who create a collection of bad assets are unaffected by corporate law incentives. This is only partly a problem in the sense that corporate law sanctions have always been understood to apply to faithless managers, not to faithful ones who manage assets poorly. The paradigmatic agency cost story is one where good assets exist and serve as the foundation of extracompetitive returns that can be diverted by self-seeking managers.

All of these positive features exist in the original director passivity model as well as the *Interco* standard, but the refinement introduced by the *Interco* standard is a very subtle one. In *Interco*, capital markets are not all that efficient in pricing new information into stock prices. Managers are assumed to need time to inform and educate shareholders or to structure an alternative transaction. This raises difficult questions. How much time is needed? Some market anomalies discussed in the next section show considerable persistence. In some cases this continues even in the face of signals from management that the stock is mispriced. Making investment decisions in real markets takes time so that finding the best alternative transaction may also take time.

The shareholder-choice camp has some good answers to these problems. First, if nothing else, shareholders are paid a premium above previously existing market prices. It is difficult to argue against allowing the shareholders to take the money and run. As long as the price paid is a premium over the prevailing market price, they can reinvest the money in other securities.

Second, and perhaps most important, the shareholder-choice model assumes that the market for corporate control is highly competitive. Consequently, any inefficiency in the financial market would be remedied if the legal rule required the manager facing a hostile tender offer to seek competing bids, assuming they could not otherwise convince shareholders not to tender their stock. But relying on the market for corporate control to correct market inefficiencies raises a new problem. In cases where the hostile bid rests on financial market error in pricing the target's stock, a key positive feature of the shareholder-choice model is weakened: not only do bad managers

lose their job, good managers do as well.⁶⁷ The signal—manage so as to maximize shareholder value or else—is weakened.

B. *The Argument for Management Discretion to Veto Hostile Tender Offers*

The position that favors giving management broad discretion to reject a hostile tender offer is most associated with the writing of Martin Lipton and his associates. His position, first stated in 1979, is that “directors of a target company should be governed by the business judgment rule and that in exercising their judgment they could take into account the interests of employees, communities and other constituents, as well as the long-term interests of the shareholders.”⁶⁸ Underpinning this position is the view that capital markets are inefficient and that the breed of hostile bids that emerged in the 1980s wreaked havoc on managers, employees, and communities, and served to enrich a new class of Wall Street arbitrageurs.⁶⁹ Lipton also endorsed section 6.02 of the American Law Institute’s Principles of Corporate Governance, which provides a standard that would allow managers to favor other constituencies as long as they did not “significantly disfavor the long-term interests of shareholders.”⁷⁰

There are three primary problems with the current state of the management-discretion position. First, it is incompletely specified so it is difficult to analyze.⁷¹ Second, as a reflection of its incomplete

⁶⁷ This component of the shareholder-choice model rests on the work of Sanford Grossman and Oliver Hart. *The Allocational Role of Takeover Bids in Situations of Asymmetric Information*, 36 J. FIN. 253 (1981). Grossman and Hart allow for bids that are below the true value of the shares and recognize that some bids would not take place if the market correctly valued the company’s stock. *Id.*

⁶⁸ LIPTON & ROWE, *supra* note 6, at 10 (summarizing Martin Lipton, *Takeover Bids in the Target’s Boardroom*, 35 BUS. LAW. 101, 130 (1979)).

⁶⁹ *Id.* at 11.

⁷⁰ AMERICAN LAW INSTITUTE, 1 PRINCIPLES OF CORPORATE GOVERNANCE: ANALYSIS AND RECOMMENDATIONS § 6.02 (1994). Section 6.02 is entitled “Action of Directors that has the Foreseeable Effect of Blocking Unsolicited Tender Offers.” It says: “The board may . . . have regard for interests or groups (other than shareholders) with respect to which the corporation has a legitimate concern if to do so would not significantly disfavor the long-term interests of shareholders.” *Id.* The Delaware Supreme Court’s expression, stated in *Revlon*, is quite different. See *Revlon v. MacAndrews & Forbes Holdings, Inc.*, 506 A.2d 173, 185 (Del. 1986) (upholding an injunction against the board’s actions because the directors allowed considerations other than the maximization of shareholder profit to affect their judgment to end an active auction for the company).

⁷¹ As noted in the Introduction, *supra*, these problems also extend to the Delaware Supreme Court’s *Unocal/Unitrin* standard.

specification, different versions of the theory raise questions as to what factors and constituencies, such as employees and local communities, directors should consider in exercising their discretion in the setting of control transactions. Some of these versions advocate stakeholder rights that exceed those explicit or implicit in Delaware caselaw. Third, in its current form, the management-discretion position does not have an adequate answer to the agency problem issue that lies at the heart of the shareholder-choice model.

I do not need to analyze these weaknesses in detail because this Article's focus deals with a threshold question faced by management-discretion models. Does any standard consistent with the basic tenets of Delaware corporate law have a satisfactory response to the efficient market argument? We know that if markets are efficient, then shareholder choice is the winning standard. To what extent do claims of market inefficiency dent the virtues of a shareholder-choice standard?

Perhaps surprisingly, the more inefficient the market, the less the support for a management-discretion position. For example, suppose the public capital market has no claims to efficiency in the sense that there is no evidence that the share price reflects the underlying value of the assets of the company. A bidder arrives with a tender offer to buy the shares above market. The directors respond to the uninvited tender offer by claiming that the bid price inadequately values the corporation. But, ironically, the more inefficient the market in the manner described, the less convincing is the directors' claim of price inadequacy. If the share price has no tendency to move toward an efficient price, the gap between intrinsic value and market value is as likely to widen as to decline. The directors cannot make a supportable claim that by hanging onto their stocks the shareholders will at some point in the near future be better off and will be paid the fundamental value of the underlying assets. Hence, absent claims that the bidder's offer is coercive or misleading, the shareholders are made better off by a legal standard that enables them to grab the money and run.

Consequently, merely arguing that capital markets are inefficient is not supportive of the management-discretion position over the shareholder-choice position. For market inefficiency to be supportive of a management-discretion theory, three conditions need to be met.

The first condition is that the market inefficiency is either transitory or is subject to some type of mean reversion. If this is the case, then informed traders can profitably buy stock in the corporation whose assets are underpriced and eventually sell them when they re-

turn to being correctly priced. Alternatively, informed traders turned entrepreneurs could buy control of corporations that are underpriced and then sell control at a time when the corporation is either correctly priced or overpriced. Consequently if shareholders forgo a premium bid that is below the fundamental value of the corporation they will ultimately realize the fundamental value. That shareholders eventually get to sell their shares at or above full value is not in itself a winning argument since by by-passing an earlier premium bid they forgo earning the going rate of return in the interim.

The second condition is that managers have an asymmetric information advantage over individual investors in estimating the fundamental value of the corporation and that that information is not easily incorporated into market prices by disclosure. The existence of asymmetric information on the part of insiders is unassailable. Just as important, however, is the second component of the statement. If asymmetric information could be easily disclosed and incorporated into market prices, the window provided by *Interco* for searching out alternative transactions would allow for the information to be correctly assessed by investors. However, as is well known in the models of asymmetric information, private information, although correct, cannot always be verified by the uninformed party and hence remains unincorporated in the investors' asking price.

The third condition is that the incentives created by a shareholder-choice rule encourage managers not to manage better, but to alter their business strategies in a manner that is detrimental to maximizing the value of the corporation.

In the next Part, I investigate each of these three conditions.

IV. ANOMALIES OR PREDICTABILITY, MANAGEMENT INFORMATIONAL ADVANTAGES, AND IMPLICATIONS FOR CORPORATE LAW

A. *Anomalies in the Fabric of Market Efficiency*

The first of the three factors of importance determining whether market inefficiency is supportive of a management-discretion theory, and hence in the corporate law debate as a whole, is the role of anomalies or predictability in the fabric of market efficiency. There is growing consensus that there are anomalies represented by predictability in future returns that are not predicted by the theory. Perhaps the dominant position today, and the one taken in this Article, recognizes that anomalies or departures from efficiency exist, can persist for some time, and play a major role in the workings of financial mar-

kets and the overall economy. John Campbell, Andrew Lo, and A. Craig MacKinlay state that although predictability would have been seen as an outright rejection of market efficiency in the past, it may be a necessary component of market functioning since it rewards arbitrageurs for taking on dynamic risk.⁷² Indeed, “predictability is the oil that lubricates the gears of capitalism,” and departures from efficiency “play a major role in determining the nature of competition and the function of markets.”⁷³ If anomalies represent a regular feature of financial markets, it makes more sense to talk about relative efficiency where market efficiency serves the same function in financial markets that perfect competition serves in product markets: it is the ideal or benchmark against which departures are measured.⁷⁴

The idea that financial markets are only relatively efficient is a middle-of-the-road position in the finance debate. On one side is the strict efficiency camp that argues that apparent departures from efficiency reflect nothing more than data limitations or problems in the precise specification of the theory. Markets get it right in pricing assets, only finance economists get it wrong when they use inadequate data or theories.⁷⁵ On the other side is the behaviorist camp that sees anomalies as representing true departures from efficiency and argues that the tests effectively refute ECMH/CAPM. It claims that once investor sentiment and behavior is incorporated into financial models, systematic, persistent, and significant deviations from efficiency become the norm.⁷⁶

In the empirical finance literature, ECMH survives in much better form than does CAPM. As noted above,⁷⁷ the prevailing view is that the anomalies that exist in the data are consistent with the view that they represent a return to dynamic risk bearing. Consequently, the weak and semi-strong theories of market efficiency still hold in that

⁷² See CAMPBELL ET AL., *supra* note 24, at 80 (“A certain degree of predictability may be necessary to reward investors for bearing certain dynamic risks.”).

⁷³ LO & MACKINLAY, *supra* note 52, at 4.

⁷⁴ See CAMPBELL ET AL., *supra* note 24, at 24 (arguing that whereas perfect efficiency is an unrealistic benchmark, relative efficiency “may be a more useful concept than the all-or-nothing view taken by much of the traditional market-efficiency literature”).

⁷⁵ In a recent article, Eugene Fama claims that the long-term anomalies are a function of data sample and econometric technique and thus do not serve to reject the hypothesis of market efficiency. Eugene F. Fama, *Market Efficiency, Long-Term Returns, and Behavioral Finance*, 49 J. FIN. ECON. 283, 303-04 (1998).

⁷⁶ For an example of such a theory, see ANDREI SHLEIFER, *INEFFICIENT MARKETS: AN INTRODUCTION TO BEHAVIORAL FINANCE* 112-53 (2000).

⁷⁷ *Supra* text accompanying note 24.

informed traders cannot systematically outperform the market by making use of past price data or news announcements. In the strict efficiency camp, most examples of anomalies reflect bad econometrics rather than departures from ECMH. Even the behaviorists largely accept the conclusion that informed arbitrageurs cannot outperform the market once risk is taken into account. The reason is that absent a theory to predict investor sentiment, arbitrageurs not only take on considerable risk in attempting to profit from irrational investor behavior, but also often do not succeed.⁷⁸

The CAPM component of market efficiency, however, does poorly in the account of any of the three camps. The central conclusion of CAPM involves the predictions of the slope of the security market line and the claim that the market capitalization rate of each company can be explained by its stock beta. The results show that the security market line has been consistently too flat for several decades, indicating that certain classes of seemingly low-risk stocks have too high a return and that beta is a highly imprecise predictor of the future excess returns of individual stocks or portfolios of stocks.⁷⁹ Two major examples of these shortcomings are represented by the returns on small company stocks and on stocks with high book-to-market value.⁸⁰

How does the strict efficiency camp deal with this apparent inconsistency? The major work on the topic is by Eugene Fama and Kenneth French.⁸¹ They acknowledge the inconsistencies with the single risk factor (beta) specification of CAPM, but argue that the solution is to incorporate other risk factors into CAPM. In particular, they assert that stocks of smaller firms, or of firms with high book-to-market ratios, must earn higher returns because they are fundamentally riskier. The high stock returns of small companies and companies with high book-to-market ratios are actually capturing risk effects not otherwise captured by beta.⁸² In the broader three-factor CAPM, they propose that the security market line is no longer too flat: the anomalies have been incorporated into the theory.⁸³

⁷⁸ SHLEIFER, *supra* note 76, at 13.

⁷⁹ A textbook review of these points can be found in BREALEY & MYERS, *supra* note 36, at 199-205.

⁸⁰ *Id.*

⁸¹ *The Cross-Section of Expected Stock Returns*, 47 J. FIN. 427 (1992).

⁸² *Id.* at 449-52.

⁸³ The three-factor CAPM is still very much in the tradition of the original CAPM in that the single tradeoff is between risk and return. The other mean-variance theory is the Arbitrage Pricing Theory, first developed by Stephen A. Ross, and examined in his article, *The Arbitrage Theory of Capital Asset Pricing*, 13 J. ECON. THEORY 341 (1976).

But the fix has its costs. First, while it is possible to advance cogent explanations that the two factors serve as proxies for systematic risk, it cannot be proved. Yes, small size and high book-to-market ratios are correlated with distress risk, but there has been no direct evidence to support the assertion. This is measurement without a theoretical foundation. It leaves unanswered the question whether the two portfolios are measuring fundamental risk or something else. Second, even if one accepts the claim that the new factors capture risk, the alternative specifications of CAPM yield imprecise estimates of the cost of equity capital. Standard errors for the cost of equity capital of more than three percent are typical.⁸⁴ Fama and French note that these uncertainties result in estimates of the cost of equity that are “distressingly imprecise.”⁸⁵

The imprecision in estimates of the market capitalization rate are magnified in valuing the corporation. The higher the growth rate in the company’s cash flow, the greater the sensitivity of the stock price to even small changes in the discount rate. Even a one standard deviation range in the cost of equity capital could generate a range for the correct stock price that could easily vary by 100% or more. In other words, with respect to CAPM, reliable valuation estimates are simply not available given the current state of the theory. If corporate insiders believe that the market is incorrectly pricing their stock, they might actually be right.

While the testing of CAPM is primarily in a cross section, there are other anomalies that occur in the time-series context. Perhaps the most significant of these is the time-series change in either dividend/price ratios, or expected returns from holding stocks. In CAPM, the risk premium on stocks, and hence the market capitalization rate, should not vary over the business cycle. But, tests show that the underlying risk premium does appear to be time variant rather than stable as predicted by the theory.⁸⁶ If the risk premium on stocks varies cyclically, this will cause market capitalization rates for individual companies to increase during recessions and decrease during expansions.⁸⁷ An alternative explanation, also consistent with the data,

⁸⁴ Fama & French, *supra* note 38, at 178.

⁸⁵ *Id.* The implication of the Fama and French article is that the mispricing can be quite large.

⁸⁶ This point is developed in John Y. Campbell & John H. Cochrane, *By Force of Habit: A Consumption-Based Explanation of Aggregate Stock Market Behavior*, 107 J. POL. ECON. 205 (1999).

⁸⁷ *Id.* at 235-37.

and also unanticipated by the theory, is that the source of the anomaly is in changes in the expected growth rate of free cash flows rather than in the discount rate.⁸⁸ In other words, investors systematically overestimate future growth rates during expansionary periods and then underestimate future growth rates during contractionary periods. Here again, there is no consensus in the literature so that the results can be explained either as another anomaly, another source of imprecision in the original theory, or another variant of investor behavior theory.⁸⁹

This time-series anomaly has importance for perhaps illuminating some of the historical dynamics in Delaware corporate law. The boom period of hostile tender offers which began in the late 1970s and continued at least until *Paramount Communications, Inc. v. Time, Inc.*,⁹⁰ provided management with more discretion to counter them.⁹¹ Of course, hostile tender offers continue to this day, but their characteristics have changed considerably since that time. The 1970s and 1980s were years of abnormally low dividend/price or price/earnings multiples.⁹² This is consistent with abnormally high-risk premiums and thus abnormally low stock prices, if abnormality is defined in terms of some average of historical dividend/price ratios. Hence, it is entirely consistent with Warren Buffett's comment at a 1985 symposium that, in his view, most public companies traded at a price below what the companies would be worth in a negotiated deal.⁹³

It would be nice to be able to quantify the nature of the anomalies both as to the effect on stock prices and to the persistence of the mispricing. Unfortunately, this is not possible because of the large num-

⁸⁸ This can be seen from the constant growth formula

$$P_0 = \frac{DIV_1}{r - q}$$

where P_0 is the current stock price, DIV_1 is the dividend expected at the end of the first year, r is the discount rate referred to above, and q is the constant growth rate in dividends. A percentage point increase in q thus has the same effect as a percentage point decrease in r . BREALEY & MYERS, *supra* note 36, at 67.

⁸⁹ For a discussion of this literature, see CAMPBELL ET AL., *supra* note 24, at 181-279.

⁹⁰ 571 A.2d 1140 (Del. 1989).

⁹¹ *Paramount* provides a key example of this expansion in management discretion as it essentially refuted the *Interco* doctrine. The *Interco* doctrine is discussed *supra* text accompanying notes 20-22.

⁹² *Hostile Takeovers and Junk Bond Financing: A Panel Discussion*, in KNIGHTS, RAIDERS, AND TARGETS: THE IMPACT OF THE HOSTILE TAKEOVER 13, 13 (John C. Coffee, Jr. et al. eds., 1988) (comments of Warren E. Buffett).

⁹³ *Id.*

ber of disparate anomalies and the range of possible outcomes. Even the two examples discussed above suggest that market anomalies might be quite large and persistent in their impact on the price of stocks, and thus on the market's valuation of the corporation. Of course, financial markets may in fact be more efficient than empirical tests validate. The tests may be flawed and the theory may be correct. At this point, however, such hope rests entirely on prior faith in market efficiency.

It is worth asking whether the evidence undercuts the existence of a correct fundamental value for the corporation. For example, do the behaviorists undercut CAPM/ECMH as a theory of valuation? Do they offer an alternative theory of valuation? The answer to both questions is "no." Even in the behaviorist literature, CAPM/ECMH is the theory against which anomalies are tested. The behaviorist claim is that markets are inefficient, but this means that stock prices are not those predicted by CAPM/ECMH.

At this point, the behaviorists do not offer an alternative theory. While behaviorists argue that investor sentiment and behavior drive stock prices,⁹⁴ they do not, and probably cannot, offer a systematic explanation for security prices based on investor sentiment and behavior. Many of the inefficiencies that arise eventually disappear, either because those who act inefficiently learn that their practices are costly, or arbitrageurs uncover the inefficiency and trade it away. In either case, valuation effects are transitory.

Consequently, when I speak of a "correct" capitalization rate or value of the corporation, the reference is to a value calculation consistent with CAPM/ECMH. I am assuming that markets, although not entirely efficient, are relatively efficient as defined by CAPM/ECMH. But I am also assuming that there can be differences in estimates of the future cash flows and appropriate market capitalization rate depending on the precise model of CAPM that is adopted and on knowledge of the appropriate risk factors. In this sense, there is no way of knowing with certainty the appropriate valuation at any point in time. In this setting, the next question is whether managers (or perhaps informed bidders) have better information than the market, where "better information" means a more reliable estimate of the future returns on the company's stock (or, alternatively, a more precise estimate of the market capitalization rate).

⁹⁴ An excellent review on behavioral theories of finance is provided in SHLEIFER, *supra* note 76, at 112-74.

B. *Do Corporate Managers Have a Better Estimate of the Value of Their Company?*

There is no doubt that firms have private information over a set of variables that determine the value of the firm. Companies with firm-specific assets have private estimates of asset- or project-specific cash flows and discount rates that may not be known to the market. But markets are also powerful instruments for estimating value and including information known to firms. Who has the better information? One way to answer this question is to examine the financial performance of corporations when they are issuing new equity.

One of the most prominent anomalies is the finding that corporations seem to be able to time the issuance of new stock, either in the form of an initial public offering (IPO) or as a seasoned equity offering (SEO), when the future returns on such investments are abnormally low.⁹⁵ In other words, companies appear to time the market, issuing stock when the company's stock price is at a peak or high plateau, so that future price appreciation is below average (based on CAPM expected returns).

On one level it is not too surprising that corporate executives may have inside information. More surprising is that the market does not immediately adjust to incorporate such information. If the announcement of a new offering is made when the market is closed, the stock price should open much lower so that the effective offering price equals the pro rata value of the corporation. Thereafter, the stock price of the IPO or SEO firm should perform as predicted by CAPM. In fact, "[t]he average annual return during the five years after issuing is only 5 percent for firms conducting IPOs, and only 7 percent for firms conducting SEOs."⁹⁶ The predicted return for comparable, but nonissuing firms, would have produced a compound return of twelve percent per year for IPOs and fifteen percent for SEOs.⁹⁷ In more recent work, there is evidence that managers not only time stock issuance, but also are successful in timing adjustments in their overall capital structure. Specifically, "firms issue relatively

⁹⁵ See Tim Loughran & Jay R. Ritter, *The New Issues Puzzle*, 50 J. FIN. 23, 23 (1995) ("[C]ompanies issuing stock during 1970 to 1990, whether an initial public offering (IPO) or seasoned equity offer (SEO), significantly underperform relative to nonissuing firms . . ."); Jay R. Ritter, *The Long-Run Performance of Initial Public Offerings*, 46 J. FIN. 3, 3 (1991) (contending that "in the long-run, initial public offerings appear to be overpriced").

⁹⁶ Loughran & Ritter, *supra* note 95, at 23.

⁹⁷ *Id.* at 46.

more equity than debt just before periods of low [stock] market returns."⁹⁸

The assumption of the shareholder-choice model is that markets respond quickly to material corporate information.⁹⁹ This is contradicted by the stock issuance data. In issuing new stock, the corporation is signaling that the stock is overvalued. Although the company does not state this fact explicitly, an efficient market with informed traders would decipher the signal using past data on the returns of issuing companies and correctly interpret it to mean that the stock is overvalued. However, the market appears largely to ignore this information, adjusting only slightly to the announcement of a new stock issue.

This example does not relate directly to information involving valuations at the time of hostile tender offers. The evidence that informed traders ignore public information issued by corporations at the time of stock issuance is striking.¹⁰⁰ Unlike the takeover setting, where there are disputed claims, here only one side is issuing the information. If financial markets ignore company information when there is no conflicting information, it is very likely that they will ignore information when there is conflicting information.

C. *Implications for Corporate Law*

So where does this leave us? We have two general results. The first is that, in the presence of anomalies, stock prices may either provide an imprecise or an incorrect estimate of the pro rata value of the corporation. The implication is that informed parties can have very different estimates of the value of the company, and this is so even when they agree as to the expected future free cash flow to be generated by the company's assets. The second is that corporate insiders, at least some of the time, are more knowledgeable about the value of their own companies than the market is.

What are the implications for the appropriate legal standards involving takeover defenses when financial markets are only relatively efficient? In the presence of anomalies, stock prices can either be higher or lower than the pro rata value of the corporation. Conse-

⁹⁸ Malcolm Baker & Jeffrey Wurgler, *The Equity Share in New Issues and Aggregate Stock Returns*, 55 J. FIN. 2219, 2219 (2000).

⁹⁹ GILSON, *supra* note 6, at 15-16.

¹⁰⁰ This point is an implication of the results found by Baker & Wurgler, *supra* note 98.

quently, merger opportunities arise that may be nothing more than profitable arbitrage trades on temporarily incorrect prices. The company whose stock is too high can become a bidder, using its inflated currency to buy companies whose stock is not inflated. The company whose stock is too low can become a target.¹⁰¹

For informed traders to succeed in profiting from these transitory trading opportunities and to buy a controlling interest in a corporation, they must have better information than the market, although perhaps not as accurate as the company's own information. A variation of this reasonable assumption is present in the shareholder-choice model as well. The difference between the two assumptions lies in the private information learned by the bidders: in the shareholder-choice model, the bidder learns which lousy managers hold good assets, while in the management-discretion model, the bidder determines that the existing stock price is too low, representing a pricing anomaly.

From an efficiency perspective, standards for reviewing takeover defenses can be evaluated against three metrics: (1) whether they move assets to their most valued use; (2) whether they adequately compensate shareholders; and (3) whether they create incentives for managers to maximize the value of the corporation on behalf of shareholders.

The Delaware standard gives management considerable discretion to veto a hostile tender offer. Faced with a veto, the hostile bidder who is not dissuaded has two primary options: take the case directly to the shareholders through a proxy battle, or increase the size of the bid in the hope of buying management's agreement. Hostile mergers can still occur, but the effect of the standard of review is to raise the premium that the bidder will eventually need to pay.¹⁰² Large premiums are consistent with financial markets that are only relatively efficient.

¹⁰¹ Whereas stock is the likely consideration when inflated bidder stock creates the takeover opportunity, cash is the likely consideration when deflated target stock is the culprit. Cash deals were prevalent in the hostile tender offers of the late 1980s, the last time a permissive takeover rule was in effect and dividend/price ratios were high. A number of the hostile bidders of the 1980s would fit this picture, including the hostile bidders in *Unocal* and *Revlon*. Similarly, stock was the consideration in many of the mergers in the high technology and Internet sectors of the recent past when dividend/price ratios were at all time lows, including the recent America Online-Time Warner merger. See Gretchen Morgenson, *AOL Time Warner May Inflate Internet Stock Values Even More*, N.Y. TIMES, Jan. 11, 2000, at C16 (discussing the background of the merger).

¹⁰² LIPTON & ROWE, *supra* note 6, at 27-28.

Where anomalies are present, mergers could move assets to less valuable uses. The larger the premium required in otherwise hostile mergers, the less likely this outcome.

Although the current policy toward takeover defenses solves the underbidding problems, it creates significant problems as well. First, management might veto mergers that offer a true premium in order to retain their jobs. Second, even if the tender offer gives shareholders less than full value, shareholders might still be financially better off if they can accept the premium bid and then reinvest the money elsewhere. As long as markets are relatively efficient, the stock price should eventually return to reflect the value of the assets. But this may occur too slowly—the present discounted value of the full-priced firm in the future may be less than the present value of a premium bid that offers less than full value.¹⁰³ At issue is whether an underpriced stock will outperform the market in the near future. There is some evidence for this type of mean reversion in financial markets,¹⁰⁴ but the evidence is decidedly mixed. The lack of stronger evidence for mean reversion supports the claim that shareholders do better by taking a premium bid immediately rather than waiting for the market to correct itself. Consequently, on the first two criteria—allowing mergers that move assets to their most valued use and compensating shareholders—the management-discretion model has major weaknesses.

A shareholder-choice standard, which gives management little leeway to say “no” to a noncoercive hostile bid, also generates mixed results on the three criteria. The strongest argument in favor of shareholder choice is that it allows shareholders to tender their stock, take whatever premium is offered, and reinvest their money elsewhere. This argument is weakened if financial markets are only relatively efficient, but it is not eliminated without empirical evidence that

¹⁰³ This conclusion would not be true if stock prices showed sufficiently strong mean reversion tendencies. If underpriced stocks strongly outperform overpriced stocks, then shareholders might be wealthier if they stay with the underpriced stock rather than taking a bid and reinvesting it in a portfolio of stocks that includes both underpriced and overpriced stocks.

¹⁰⁴ See, e.g., James M. Poterba & Lawrence H. Summers, *Mean Reversion in Stock Prices: Evidence and Implications*, 22 J. FIN. ECON. 27, 27-59 (1988) (analyzing data from 1871-1985 in order to present statistical evidence on mean reversion); Robert J. Shiller & Pierre Perron, *Testing the Random Walk Hypothesis: Power Versus Frequency of Observation*, 18 ECON. LETTERS 381-86 (1985) (tabulating power functions while holding the span of data fixed and while varying the number of observations, and concluding that it is more useful to think of power of a t-test or normalized beta test as depending on the span of data rather than on the number of observations).

undervalued firms strongly outperform the market in the near term absent a takeover.

If financial markets are only relatively efficient, assets can be moved to less valuable uses, allowing hostile mergers to occur at prices below the value of the corporation. As discussed earlier,¹⁰⁵ these results might be mitigated if one added an active auction process, particularly if management were also interested and able to bid. Such results, however, are not assured. In some cases, particularly where the bidder is a dominant firm in a market, other bidders might not emerge. Where other bidders do emerge, there is no reason to assume that pricing anomalies are resolved. In a stock deal, the winning bidder may simply have the most overvalued stock. Examples include the stock deals that formed the conglomerates during the 1960s and the dot-com deals of the 1990s. In a cash deal, the winning bidder might still pay less than true market value. For example, during the 1980s, most deals involved cash at a time when stocks sold at very low valuations based on future free cash flow or dividends. The premiums paid during that period still allowed the buyer to reap considerable multiple expansions on free cash flow and dividends when multiples expanded throughout the 1990s.¹⁰⁶ Warren Buffett's claim in 1985 that even the best-managed companies sold in the market for prices below a negotiated deal price is consistent with the multiple expansion that occurred thereafter.¹⁰⁷

The final issue, and the most important, deals with the incentives created by the legal standard. Perhaps the strongest argument in favor of shareholder choice in a world of efficient markets is that it sends a clear message to entrenched managers: run the company to maximize shareholder value or risk losing your job to a hostile bid. Bad managers with good assets get taken over.

If markets are only relatively efficient, however, good managers with good assets could also lose their jobs if their stock price is caught up in an underpricing anomaly. The signal—manage better or else—gets replaced by a new signal—avoid, if possible, having your company stock caught up in an anomaly. If managers believe that their stock is subject to periods of underpricing, they might take steps to avoid being subject to the effects of the anomalies that create the low price.

¹⁰⁵ See *supra* note 66 and accompanying text (asserting that an opportunity for managers to bid in an active auction will support market efficiency).

¹⁰⁶ Campbell & Cochrane, *supra* note 86.

¹⁰⁷ *Hostile Takeovers and Junk Bond Financing: A Panel Discussion*, *supra* note 92, at 13.

A shareholder-choice position is structured to prevent managers from entrenching themselves once a takeover bid has been made. In doing so, however, it may create incentives for managers to entrench themselves by managing to anomalies, thereby avoiding becoming the target of a hostile bid. Different types of anomalies would lead to different avoidance strategies. A more detailed analysis of the actual mechanics is beyond the scope of this Article; however, space permits several comments.¹⁰⁸

If the anomaly leads to the underpricing of a particular asset or class of assets owned by the firm, the firm might sell those assets even if the sale price were below management's estimate of the true value of the asset. Managers might avoid investments in firm-specific, long-lived assets for which the discount rate is dependent on firm product market data that is not verifiable by financial markets. Although the investment would increase the value of the corporation, it would make the firm more vulnerable to market mispricing and hostile tender offers. Finally, managers might adopt strategies so that their company's stock becomes overpriced, for example, playing to market fads. Adopting strategies that lead the company stock to be overvalued is the ultimate takeover defense; moreover, the inflated currency can turn the potential target into a bidder.

Should companies take such actions? Those who believe that financial markets are always efficient contend that management should manage to the stock market signals. Since there are no anomalies, all signals are accurate. But, if markets are only relatively efficient and managers believe, based on their own information, that the above decisions reduce the ultimate value of the corporation, then the manager as faithful fiduciary would not make such investment decisions.

CONCLUSION

Any legal standard governing hostile tender offers is going to have to balance the tradeoff between allowing the shareholders to decide the outcome of contested control transactions and having managers decide what is best for the firm. Where incentive effects play a critical role, this tradeoff translates into balancing the risks of bad managers entrenching themselves by rejecting value-enhancing tender offers versus good managers maximizing the value of the assets. A legal

¹⁰⁸ The approach to corporate governance in this Article is highly consistent with that of FRANKLIN ALLEN & DOUGLAS GALE, *COMPARING FINANCIAL SYSTEMS* 79-125 (2000).

standard involving takeover defenses, such as the one embodied in the shareholder-choice position, views the threat of bad managers entrenching themselves as the primary problem that needs to be solved. A takeover policy that gives management discretion to veto a hostile tender offer tilts toward giving good managers the discretion to maximize shareholder value.

In a world of perfectly efficient capital markets, a shareholder-choice standard would be the dominant policy solution. In such a state, any noncoercive hostile tender offer at a premium to the market price moves assets to more valued uses while offering shareholders enhanced market value. Best of all, it sends a clear signal to all managers to be more faithful or risk losing their jobs.

In a world where capital markets are only relatively efficient, the calculus may shift. Successful hostile tender offers could move assets to less valued uses. It could encourage managers to manage to the anomalies; that is, to adopt otherwise suboptimal business strategies intended to minimize the risks of underpricing. In this Article, I have developed one case where this could occur. The prevailing legal standard in Delaware regarding takeover defenses can be understood as focused on giving managers the discretion to maximize the value of their corporation. In light of modern finance theory, this is a plausible way to strike a balance if one assumes the choice set is between largely unconstrained shareholder choice and largely unconstrained management discretion. It does, however, leave important problems unresolved. Whether a workable, truly intermediate standard of review—a fact specific inquiry descriptive of, among other things, the size of the premium and the nature of the anomaly—is available remains to be determined.