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THE DRIVERS OF MARKET EFFICIENCY
IN *REVLON* TRANSACTIONS

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Abstract:

Drawing from practitioner interviews and Gilson & Kraakman's "mechanisms" of market efficiency, I present the argument that the Delaware Supreme Court's decision in Revlon v. MacAndrews & Forbes, Inc. would reduce incentives to search and therefore would reduce overall efficiency in the market for corporate control. I compare this theoretical prediction to the evidence from the past seventeen years of takeover activity, and find no evidence that deal activity for Revlon transactions has been reduced. I argue that three drivers of market efficiency might explain this finding: small net first-bidder costs, preemptive bidding, and heterogeneous buyers. I present some evidence that the market for corporate control was primarily a private-value game in the 1990s, implying that buyer heterogeneity was an important driver of market efficiency. This paper is part of a Symposium commenting on Gilson & Kraakman, The Mechanisms of Market Efficiency, 70 Va. L. Rev. 549 (1984).

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"The ability to bring somebody in to a situation is far more important than the extra dollar a share at the back end. At the front end, you're probably talking about 50%. At the back end you're talking about one or two percent. To this day I think that what we did at *Revlon* was the right thing to do, and that were it not for our ability to provide an edge to Forstmann we wouldn't have gotten the first higher bid. By saying that you have to be open to the last dollar at the back end, maybe you'd better not start on the front end. That's what I argued in *Revlon*. But remember, I lost *Revlon*, so I'm prejudiced."[1]

-- Martin Lipton, Senior Partner, Wachtell, Lipton, Rosen & Katz

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[1] Interview with Martin Lipton, Wachtell, Lipton, Rosen & Katz, in New York, NY, transcript at 2 (June 14, 2000) [hereinafter "Lipton Interview"].

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I. Introduction

Thirteen months after Ronald Gilson and Reinier Kraakman published their seminal article *The Mechanisms of Market Efficiency*,[2] Ronald Perelman began his overtures for Revlon that resulted in the Delaware Supreme Court's landmark decision in *Revlon v. MacAndrews & Forbes, Inc*.[3] In *Revlon*, the Court held that when a "sale" or "break-up" of the company becomes "inevitable," the board's duty changes from "defenders of the corporate bastion to auctioneers charged with getting the best price for the stockholders at a sale of the company."[4] When *Revlon* is triggered, derivatively informed trading, to use Gilson & Kraakman's terminology (and more specifically, trade decoding[5]), becomes more important, relative to professionally informed trading, as a mechanism of market efficiency. But the possibility for noise-free trade decoding for companies in *Revlon*-mode suggests a reduction in incentives to search: as Gilson & Kraakman put it in the context of the small-block market, "Why would anyone incur the cost and risk of acquiring restricted-access information if hair-triggered 'decoders' will extract the bulk of the value?"[6] Thus Gilson & Kraakman's model identifies a potential problem with respect to *Revlon* transactions that might be cause for concern for those who believe that takeovers, in general, create value by directing assets to their most valuable use.[7]

In this Commentary I present evidence from our seventeen years of experience with *Revlon* that is consistent with the view that incentives to search have remained strong in the U.S. market for corporate control (MCC), despite

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[2] Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 VA. L. REV. 549 (1984).

[3] 506 A.2d 173 (Del. 1986).

[4] *Id.* at 182.

[5] "Trade decoding occurs whenever uninformed traders glean trading information by directly observing the transactions of other traders." Gilson & Kraakman, *supra* note 2, at 573.

[6] *Id.* at 577.

[7] *See* Gregor Andrade, Mark Mitchell & Erik Stafford, *New Evidence and Perspectives on Mergers*, 15 J. ECON. PERSP. 103 (2001) (reporting positive abnormal returns for targets, slightly negative abnormal returns for bidders, and positive returns for the combined entity for mergers announced between 1973 and 1998).

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this potential "*Revlon* Problem." I then identify three potential explanations for this finding: small net first-bidder costs, preemptive bidding, and heterogeneous buyers. These three "drivers" might explain how value-creating transactions were achieved in the 1990's MCC despite the potentially onerous requirements of *Revlon*.

The remainder of this Commentary proceeds as follows. Part II extends Gilson & Kraakman's model to the MCC, and identifies two important differences between the small-block market, which is the focus of their analysis, and the MCC. Part III describes the substantive requirements imposed by *Revlon*, the mechanisms of market efficiency with respect to *Revlon* transactions, and the resulting *Revlon* Problem. Part IV presents large-sample evidence suggesting that the predictions of the *Revlon* Problem have not been realized in the 1990's MCC, and discusses three possible explanations for this finding. Part V concludes.

II. Extending Gilson & Kraakman's Model to the Market for Corporate Control

Ever since Henry Manne introduced the concept of a "market" for corporate control in his classic 1965 article,[8] commentators have debated whether this market and the market for small-block shares represent a single market or two distinct markets.[9] The fact that minority shares trade in public markets at a discount,[10] and that a seller is entitled to keep a control premium in a control transaction,[11] might suggest that the market for small-block shares and the MCC are two distinct markets. By focusing on information flows, however, Gilson & Kraakman's model provides a way of connecting these markets into a continuous whole, while also highlighting important structural differences that give rise to distinct mechanisms that move these markets toward efficiency.

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[8] *See* Henry G. Manne, *Mergers and the Market for Corporate Control*, 73 J. POL. ECON. 110 (1965).

[9] *Compare* Martin Shubik, *Corporate Control, Efficient Markets, and the Public Good*, *in* KNIGHTS, RAIDERS & TARGETS: THE IMPACT OF THE HOSTILE TAKEOVER 32-33 (John C. Coffee, Jr., Louis Lowenstein and Susan Rose-Ackerman, eds., 1988) (arguing that "the market for a few shares of the stock of a corporation and the market for control of a corporation may be fundamentally different markets") *with* William J. Carney & Mark Heimendinger, *Appraising the Non-Existent: The Delaware Courts' Struggle with Control Premiums*, forthcoming U. PENN. L. REV. (2003) (arguing that the MCC and the market for small-block shares are part of a single market).

[10] *See* Reinier Kraakman, *Taking Discounts Seriously: The Implications of "Discounted" Share Prices as an Acquisition Motive*, 88 COLUM. L. REV. 891, 901-02 (1988).

[11] *See, e.g.*, Zetlin v. Hanson Holdings, Inc., 397 N.E.2d 387 (N.Y. 1979) (noting that the ability to keep a control premium "has been long settled law" and that the alternative – an equal opportunity regime – would be a "radical" change). *Cf.* Perlman v. Feldmann, 219 F.2d 173 (2nd Cir. 1955), *cert. denied*, 349 U.S. 952 (1955) (noting the "market rule" but holding that CEO violated his fiduciary duty by selling his control stake for a premium when control permitted the buyer control over regulated steel production).

A. The Mechanisms of Market Efficiency

Consider a new piece of information about a widely-held company Alpha Inc.: if Alpha management is replaced by a well-performing team, the stock price will go from its current $15 per share to $30 per share. Assume, for simplicity, that this information is objectively true (i.e. it is a "hard" fact rather than a "soft" belief), and that this fact is currently unknown in the marketplace. In the market for small-block shares, the market becomes efficient when the stock price moves toward $30 in proportion to the likelihood that management will in fact be replaced by a well-performing team, and discounted for the time it will take for this change to happen.[12]

How would this new information be incorporated into price? One of the lasting contributions of Gilson & Kraakman's article is their specification of the mechanisms that incorporate information into price in the market for small-block shares. Here, the information is expensive to acquire, at all three levels of the Gilson & Kraakman information cost framework.[13] Acquisition might occur through "surveillance" or "investigative analysis" by diligent equity analysts.[14] Information processing and verification require further human capital investment, and might require confirmation from third-party experts. All of these tasks are particularly difficult because they involve forecasts about the future value of the company. Thus information costs are high, which means that the information will not be widely distributed, which means that relative efficiency will be low, which, finally, means that the initial traders will stand to gain substantial profits from acquiring the information.

Who will these initial traders be? It is possible that they are Gilson & Kraakman's "derivatively informed traders" who become informed through "informational leakage."[15] More likely, though, the initial traders will be professionally informed traders, who Gilson & Kraakman describe as the "arbitrageurs, researchers, brokers and portfolio managers who devote their careers to acquiring information and honing evaluative skills."[16] Analyst conference calls or one-on-one conversations with management[17] will begin to generate concerns, better managers will be identified, and the informational nugget will begin to disseminate – slowly, and then with acceleration – through this community, until the market price of the Alpha stock has adjusted upward

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[12] The stock market reaction to this information is positive because, by assumption, the poor performance of the current management team has already been incorporated into the $15 share price. Therefore the new information is good news, in the sense that it has identified the problem and has quantified the opportunity for improvement.

[13] *See* Gilson & Kraakman, *supra* note 2, at 594-95.

[14] *See id.* at 611 (Figure 4).

[15] *See id.* at 572-73.

[16] *Id.* at 571.

[17] *But cf.* Securities Act Release No. 33-7881, 17 CFR 243.100-243.103 (Aug. 15, 2000) (prohibiting management from privately disclosing material non-public information to analysts).

to reflect this new piece of information. Eventually, Fama's condition that prices "'fully reflect' all available information"[18] will be met.

Now consider Gilson & Kraakman's empirical extension, that market efficiency also requires "that 'available information' does not support profitable trading strategies or arbitrage opportunities."[19] This condition is not satisfied with respect to the information described above, because if the likelihood of takeover (as assessed by the market) is less than 100%, then the stock will still trade at some price less than $30, which means that there are still substantial profits to be made by actually effectuating the takeover and replacing (or reforming) management. Assume that the market assesses a 33% likelihood of takeover; ignoring time value of money and risk, the stock will trade at $20.[20] A takeover entrepreneur might make a bid for the company at a price somewhere between $20 and $30, either through a hostile bid, or, more commonly in the 1990s, through a proposed negotiated acquisition. Because 1990s managers often had "golden parachutes" and deep-in-the-money options that would vest immediately upon a change of control,[21] these proposals might be warmly received, or at least not opposed, by the incumbents. In this way the per share value of Alpha would increase to $30.

And so we should add "takeover entrepreneur" to Gilson & Kraakamn's list of professionally informed traders, because the takeover entrepreneur contributes to (is a mechanism of) market efficiency by eliminating the possibility of profits that arise from the new information. By extension, the analysis suggests an informational connection between the MCC and the market for small-block shares: a particular kind of information, requiring change within the company, can be partially reflected in stock price through the small-block market, but can only be fully reflected through the MCC.

This analysis highlights the point that the MCC, in contrast to the small-block market, changes the underlying information that the market is acting on. The information that Alpha would be worth $30 under improved management remains true regardless of how many or how few trades are made in the small-block market. But the takeover entrepreneur changes the nature of the information itself: "Alpha worth $30 if management is replaced" becomes "Alpha *is* worth $30 *because* management has been replaced."

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[18] Eugene Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. FIN. 383 (1970), *cited in* Gilson & Kraakman, *supra* note 2, at 554.

[19] *See* Gilson & Kraakman, *supra* note 2, at 555. *See also* Burton Malkiel, *Efficient Market Hypothesis*, *in* P. NEWMAN, M. MILGATE, & J. EATWELL, EDS., NEW PALGRAVE DICTIONARY OF MONEY AND FINANCE MARKETS (1992) ("Efficiency with respect to an information set . . . implies that it is impossible to make economic profits by trading on the basis of [that information].").

[20] The reason is that there is a 33% chance that the company will be worth $30 (takeover), and a 67% chance that the company will be worth $15 (no takeover).

[21] *See* Marcel Kahan & Edward Rock, *How I Learned to Stop Worrying and Love the Pill: Adaptive Responses to Takeover Law,* 69 U. CHI. L. REV. 871 (2002).

There are two other, more important, differences between these two markets: first, the degree to which behavioral phenomena might influence the efficiency of the marketplace; and second, the extent to which the transaction is open to third-party bidders. I discuss each of these differences in the remainder of this Part.

B. Behavioral Effects

The first important difference between the market for small-block shares and the MCC is the degree to which recent advances in corporate finance theory should cause us to question the efficiency of the marketplace. Gilson & Kraakman's article appeared at perhaps the height of acceptance for the efficient capital market hypothesis (ECMH) in corporate finance theory; since then, behavioral finance[22] and a more sophisticated understanding of the structural complexities of the securities market[23] have cast doubt on the descriptive power of the ECMH with respect to publicly-traded companies in the U.S.[24] To what extent should this compelling evidence from the small-block marketplace call into question the efficiency of the MCC?

The clearest connection between the two markets exists in the fact that the small-block market sets a floor on prices in the MCC. Because a control block requires at least some premium to the current market price, and, more generally, because the attractiveness of an offer is typically assessed as a premium to market price, irrational pricing in the small-block market will either deter efficient trades in the MCC or allow inefficient trades, if market prices are substantially lower than intrinsic value. Thus, irrational pricing in the small-block marketplace has a clear spillover effect to the MCC.

But there are three important features of the MCC that limit this spillover. First, stock-for-stock transactions would cancel out irrational pricing to the extent that the market as a whole is subject to a speculative bubble. To take the simplest example, if all stocks in the market are overpriced by 50%, then market prices will continue to facilitate efficient deals and deter inefficient deals among stock-for-stock transactions. This point clearly does not apply to

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[22] *See generally* ANDREI SHLEIFER, INEFFICIENT MARKETS: AN INTRODUCTION TO BEHAVIORAL FINANCE (2000).

[23] *See, e.g.*, Marcel Kahan, *Securities Law and the Social Costs of 'Inaccurate' Stock Prices*, 41 DUKE L. J. 977, 992-93 (1992) (identifying liquidity crunches, in addition to behavioral effects, as a reason that stock prices might diverge from intrinsic value).

[24] *See* Donald C. Langevoort, *Taming the Animal Spirits of the Stock Markets: A Behavioral Approach to Securities Regulation*, 97 NW. U. L. REV. 135, 141 (2002) ("What is impressive in the case against market efficiency is not the strength of any individual claim, but their aggregate weight. . . . If far from dead, market efficiency is at least more contestable than ever."); Burton G. Malkiel, *The Efficient Market Hypothesis and Its Critics*, 17 J. ECON. PERSP. 59, 60 (2003) ("By the start of the twenty-first century, the intellectual dominance of the efficient market hypothesis has become far less universal."). *But cf.* Eugene Fama, *Market Efficiency, Long-Term Returns and Behavioral Finance*, 49 J. FIN. ECON. 283, 304 (1998) (reviewing studies finding long-term return anomalies and concluding that these results are "fragile" and consistent with the view that "apparent overreaction of stock prices to information is about as common as underreaction").

firm-specific mispricing, which creates an acquisition currency that can promote inefficient acquisitions –for example, Worldcom's acquisition of MCI and AOL's acquisition of Time Warner dramatically illustrate this point.[25] But among stock-for-stock deals, market-wide bubbles will not have an effect on efficiency in the MCC.

Second, regardless of the consideration used, the actors in the MCC are usually management teams, not individuals, typically advised by sophisticated bankers, lawyers, and accountants, who are, in general, less prone to the psychological biases[26] and outright mistakes[27] that are now well-known to affect individual investors. To the extent that interpersonal dynamics might have affected behavior (specifically, spurred irrational bidding) in 1980s contests for corporate control, these influences were substantially muted in the 1990s marketplace.[28]

Finally, while the small-block market, at least in the United States, is as close to frictionless as any real-world market, the MCC has considerable sand in the wheels. Transaction costs in corporate control transactions, including professional service fees and management opportunity cost, are typically 2-5% of deal value, and premiums in control transactions are typically in the 20-40% range. While these effects might increase the time it takes for prices to reflect new information (i.e., relative efficiency) and increase overall "noise" in the marketplace, they are also likely to reduce the likelihood of systematic biases. The proposition is that if managers are required to pay a substantial premium in order to achieve a change in control, and if there are costs involved in making such a bid, the care and attention given to the transaction will increase, which in turn will reduce the influence of behavioral phenomena.

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[25] Using stock valued at $31 per share, Worldcom outbid GTE and British Telecom to acquire MCI in November 1997. By 2001, Worldcom was trading at $15 per share and in July 2002 it filed for bankruptcy protection. Using stock trading at $74 per share, AOL acquired Time Warner in January 2000; by October 2000, it was trading at $45 per share, and by June 2002 AOL-Time Warner was trading at $10. *See also* Anita Raghavan & Nikhil Deogun, *Where Have All the Mergers Gone?*, WALL ST. J. (Mar. 22, 2001) at C1 (citing, as an important reason for the decline in deal activity, "lofty stock prices, which gave CEOs a strong acquisition currency with which to do deals, have fallen back.").

[26] *See* ROBERT J. SHILLER, IRRATIONAL EXUBERANCE (2000); MAX H. BAZERMAN, SMART MONEY DECISIONS: WHY YOU DO WHAT YOU DO WITH MONEY (AND HOW TO CHANGE FOR THE BETTER) (1999).

[27] *See, e.g.,* Michael Rashes, *Massively Confused Investors Making Conspicuously Ignorant Choices (MCI-MCIC)*, 56 J. FIN. 1911 (2001) (presenting evidence that some investors traded in Massmutual Corp. Investors, ticker MCI, based on information about MCI Communications, ticker MCIC).

[28] *See* Interview with Stephen Fraidin, Fried, Frank, Harris, Shriver & Jacobson, in New York, NY (June 15, 2000), transcript at 5 ("Personality contests aren't nearly as common today as they were in the eighties.") [hereinafter "Fraidin Interview"]; Interview with William T. Allen, former Chancellor, Delaware Chancery Court, in New York, NY, transcript at 3 ("Those [personality-driven] cases are fewer today. Maybe directors more often are behaving in economically rational ways.") [hereinafter "Allen Interview"].

To be clear, I do not mean to suggest that deviations from rationality and long-term efficiency do not exist in the MCC. In fact, in prior work John Coates and I suggest the existence of, and find some evidence for, mild behavioral effects in the context of lockup arrangements in the MCC.[29] But to the extent that the mechanisms of market efficiency have been demonstrated to function less than perfectly in the small-block marketplace, these concerns seem to operate in a less compelling way with respect to the MCC. Moreover, to the extent that behavioral effects do exist in the MCC, it is difficult to distinguish these effects from the standard agency problem, since traders in the MCC are often acting as agents.[30] The implication of this analysis is that the Gilson & Kraakman framework is particularly relevant as a descriptive and predictive tool for the MCC, perhaps more so than for the small-block market. Thus deviations from this framework cannot readily be explained by behavioral effects.

C. Transaction Timing and Disclosure

A second important difference between the market for small-block shares and the MCC involves the timing and disclosure requirements for the transaction. In the small-block market, only statutory insiders are required to disclose trades (now within two days after the trade under Section 403 of the Sarbanes-Oxley Act).[31] Moreover, the trade itself can happen instantaneously on today's electronic exchanges. In contrast, unless the target already has a controlling shareholder, a control transaction must be executed publicly, either through a public tender offer or through a merger agreement that then requires shareholder approval. A tender offer must stay open for at least 20 business days,[32] and a merger agreement requires a target shareholder vote that usually

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[29] *See* John C. Coates IV & Guhan Subramanian, *A Buy-Side Model of M&A Lockups: Theory and Evidence*, 54 STAN. L. REV. 307, 362-64, 369 (2000) (finding some empirical support for buy-side endowment effects in M&A transactions).

[30] This agency problem is potentially far more important than behavioral effects in the MCC: managers may succumb to "empire building," and the sophisticated bankers, lawyers, and accountants described above may facilitate or even fuel these interests through incentives of their own that are not necessarily aligned with those of the corporation. The fact that bidders, on average, overpay in the MCC, *see, e.g.*, Andrade, Mitchell & Stafford, *supra* note 7, suggests that these effects are at least partially at work. Agency costs have an ambiguous effect on efficiency in the MCC, promoting some efficient transactions but also some inefficient transactions. In Part IV, I focus on three drivers that would only promote efficient (value-creating) transactions.

[31] *See* Sarbanes-Oxley Act of 2002, Section 403(a)(2)(C), Pub. L. No. 107-204, 116 Stat. 745 (requiring disclosure of trades by statutory insiders "before the end of the second business day following the day on which the subject transaction has been executed"); SEC Release No. 34-46421 (August 27, 2002) (setting effective date for Section 403(a) as August 29, 2002).

[32] *See* Rule 14e-1.

takes between three and six months. Regulatory delays can make the delay even longer.[33]

With delay comes the possibility of intervention by an outside bidder. This possibility creates substantial risk for the acquirer, and is often undesirable from the target's perspective as well.[34] In the MCC, lockups might substantially reduce or even eliminate this risk, thereby minimizing this structural difference between the small-block market and the MCC.[35] But when a deal is in *Revlon* mode, the ability to use lockups is constrained, and the difference between the MCC and the small-block market becomes wide once again. In the next Part, I examine the substantive requirements imposed by *Revlon* and the implications of this widening for efficiency in the MCC.

III. Applying the Model to *Revlon* Transactions

In Part II, I extended the Gilson & Kraakman model to the MCC, and noted two important differences between this market and the market for small-block shares. First, to the extent that recent advances in corporate finance cast doubt on the validity of the ECMH with respect to the small-block market, this literature might be less relevant for the MCC. Second, corporate control transactions, unlike small-block trades, can be "jumped" by other bidders because of unavoidable delay and disclosure requirements. In many transactions, this risk can be mitigated through deal protection devices. This Part, however, discusses an important set of transactions – transactions in so-called "*Revlon*-land" – in which the ability to protect the deal from deal-jumpers is considerably reduced.

A. *Revlon*, Trade Decoding, and Derivatively Informed Trading

Revlon involved a bidding contest between Ronald Perelman, a well-known takeover artist, and Forstmann Little, a New York City leveraged buyout firm, to acquire Revlon, Inc. The public contest began in August 1985, when Perelman made a hostile bid for Revlon, initially at $47.50 per common share and subsequently raised to $50 and then $53 per share.[36] In October 1985, the Revlon board accepted a "white knight" proposal by Forstmann Little for $56 per share in cash.[37] Perelman countered with a $56.25 offer.[38] Forstmann Little then made a new $57.25 per share offer conditioned on an

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[33] *See, e.g.,* Hart-Scott-Rodino Antitrust Improvements Act of 1976, 15 U.S.C. § 189 (1994) (requiring waiting periods between 15 and 30 days before closing a transaction, and potentially longer if a second request is made).

[34] *See, e.g.*, Interview with Richard I. Beattie, Chairman, Simpson, Thacher & Bartlett, in New York, NY (July 23, 1999), transcript at 2 ("Generally the business people want to get the transaction done, to happen, and they want it to happen with the partner they've picked.") *cited in* Coates & Subramanian, *supra* note 29, at 310.

[35] *See* Coates & Subramanian, *supra* note 29.

[36] *See* Revlon, 506 A.2d at 177.

[37] *See id.* at 178.

[38] *See id.*

asset lockup (at 80% of fair market value), a no-shop provision, and a breakup fee, which the Revlon board unanimously approved.[39] In a final move, Perelman increased his offer to $58 per share, and brought suit to enjoin the defensive tactics and deal protection devices that Revlon had used to preserve its deal with Forstmann Little.[40]

The Delaware Chancery Court ruled for Perelman,[41] and the Delaware Supreme Court affirmed,[42] enjoining the deal protection devices because "the result of the lockup was not to foster bidding, but to destroy it."[43] Beyond the specific holding in the case, the *Revlon* Court announced a new standard for judicial review of director conduct.[44] In now-famous language, the Court held that when a "sale" or "break-up" of a corporation becomes "inevitable," the board's duty changes from "defenders of the corporate bastion to auctioneers charged with getting the best price for the stockholders at a sale of the company."[45]

Despite the "auctioneering" language in the original *Revlon* decision, subsequent cases clarified that the basic goal when *Revlon* was triggered was to maximize immediate shareholder value, but that there was no "standard formula"[46] that a board had to follow in doing so. In 1989, the Delaware Supreme Court's opinion in *Barkan v. Amsted Industries*[47] provided the clearest articulation to date of the substantive requirements imposed by *Revlon*: first, a level playing field among bidders;[48] and second, a "market check" to ensure that the board was getting the best possible deal for its shareholders,[49] with a narrow exemption for situations in which the board already had "a reliable body of evidence with which to evaluate the fairness of a transaction."[50] Four years later, in *Paramount v. QVC*, the Delaware Supreme Court further clarified that the primary objective for directors when *Revlon* is

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[39] *See id* at 178-79.

[40] *See* Revlon, 506 A.2d at 179.

[41] MacAndrews & Forbes Holdings, Inc. v. Revlon, Inc., 501 A.2d 1239 (Del. Ch. 1985).

[42] Revlon v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173 (Del. 1985).

[43] *Id.* at 183.

[44] *See* Allen Interview, *supra* note 28, transcript at 4 ("With the *Revlon* case there was a new obligation, but it didn't fit in to the structure of legal obligations that directors had before.").

[45] *Id.* at 182.

[46] Mills Acquisition Co. v. Macmillan, Inc., 559 A.2d 1261, 1286 (Del. 1989).

[47] 567 A.2d 1279 (Del. 1989).

[48] "[W]hen several suitors are actively bidding for control of a corporation, the directors may not use defensive tactics that destroy the auction process. . . . When multiple bidders are competing for control . . . fairness forbids directors from using defensive mechanisms to thwart an auction or to favor one bidder over another." *Barkan* at 1286-87.

[49] "When the board is considering a single offer and has no reliable grounds upon which to judge its adequacy, . . . fairness demands a canvas of the marketplace to determine if higher bids may be elicited." *Id.* at 1287.

[50] *Id.*

triggered is "to secure the transaction offering the best value reasonably available to stockholders."[51]

This evolution of the Delaware case law away from a wooden and narrow reading of *Revlon*'s language allayed practitioner fears that any sale of control transaction would require a full-blown, "put out the gavel" auction.[52] Nevertheless, practitioners consistently acknowledge that *Revlon* continues to have substantive bite in change of control situations, particularly with respect to the "level playing field" requirement.[53] Consistent with this view, large-sample evidence shows that deal protection is lower in *Revlon* deals than in non-*Revlon* deals.[54]

This "level playing field" requirement facilitates derivatively informed trading through trade decoding, defined by Gilson & Kraakman as trading that occurs "whenever uninformed traders glean trading information by directly observing the transactions of informed traders."[55] As described by Stephen Fraidin of Fried, Frank, Harris, Shriver & Jacobson, the facts of *Revlon* itself starkly illustrate the potential for trade decoding:

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[51] *See* Paramount Communications Inc. v. QVC Network Inc., 637 A.2d 34, 43 (Del. 1993). *See also* Interview with Joseph H. Flom, Skadden, Arps, Slate, Meagher & Flom, in New York, NY (June 15, 2000), transcript at 4 [hereinafter "Flom Interview"] ("The way I look at it is very simple. If you're selling the company, you've got to make sure that the premium is realized for your shareholders, because they're not going to have another chance. So you have to adopt a process as a board a process, and your judgment is completely critical as to how you're going to structure it go try to get the best price. . . . *Revlon* is really an outcome of that kind of thinking. It's just very simple."); Interview with Leo E. Strine Jr., Vice-Chancellor, Delaware Court of Chancery, in Wilmington, Delaware, transcript at 1 (June 16, 2000) [hereinafter "Strine Interview"] ("A lot of people emphasize the auction part of *Revlon*, that you have to shop the company. But I think if you read the case law, what it more frequently stresses is the fact that the only value that the corporation can pursue at that time is the immediate attainment of the highest price for the company. . . . They have one singular goal, and it's the goal against which all their actions are measured.").

[52] *See* Interview with David A. Katz, Wachtell, Lipton, Rosen & Katz, in New York, NY, transcript at 4 (June 14, 2000) ("*Revlon* started out looking more like an auction requirement, but the law has really caught up to say that you really need to focus on what the best process the board feels is going to achieve the highest value for the shareholders.").

[53] *See, e.g.*, Fraidin Interview, *supra* note 28, transcript at 2 ("*Revlon* has very significant substantive bite. You have to have a level playing field, and you can't provide information only to one party."); Dover Diversified, Inc. v. Margaux, Inc. (Del. Ch. Nov. 4, 1994) (identifying the size of "any termination fees, lock-ups, etc., . . . and what were the circumstances giving rise to them," "how much opportunity is afforded for financially more beneficial transactions to emerge," and "what information is or will be afforded to others," as three factors, among others, in determining whether the board's substantive duties under *Revlon* have been satisfied).

[54] *See* Coates & Subramanian, *supra* note 29, at 322-23 (Tables 3 & 4) (2000) (reporting results of multivariate regression analysis showing higher lockup incidence and size of lockup for all-stock deals that are not subject to *Revlon* duties). *See also* Flom Interview, *supra* note 51, transcript at 2 (reporting "an escalation in the breakup fees outside of the *Revlon* context").

[55] Gilson & Kraakman, *supra* note 2, at 573.

I represented Forstmann Little. At one point there was a negotiation between the parties to try to settle the situation, and my client tells Perelman, "We have a big advantage: we have confidential information, you don't have any. We know what to bid and you do not." Perelman, who was a smart man, said, "Actually, I have even better information than you have because I know what you're bidding. And once I know what you're bidding and I know how smart you are and I know that you have all the confidential information, I know I can bid a nickel more and still have a good deal." And he was absolutely right.[56]

In the context of small-block trades, Gilson & Kraakman argue that trade decoding is limited by the "significant constraint" that "uninformed traders must be able to identify informed traders individually and observe their trading activities directly."[57] This requirement is satisfied in the MCC because the identity of the acquirer and the price being offered must be announced publicly to the shareholders, either through the tender offer or through the merger agreement. Trade decoding is further facilitated in control transactions by *Revlon*'s level playing field requirement: if the initial bidder could effectively lock up the transaction, or at least gain a substantial advantage, then other bidders could observe the initial bidder's move but might not be able to effectively trade on the information. *Revlon*, therefore, provides an additional ingredient that makes trade decoding generally feasible for transactions in *Revlon*-land.

Note the importance of this additional ingredient. Outside of *Revlon*-land, the parties to a transaction can generally lock-up their transaction through a large break-up fee,[58] or through a stock option lockup that, until June 2002, would have killed pooling treatment with respect to other potential bidders.[59] By holding in its *Time Warner* decision that a stock-for-stock merger did not trigger *Revlon* duties,[60] the Delaware Supreme Court solidified the legal distinction between *Revlon* transactions (where trade decoding is necessarily effective) and non-*Revlon* transactions (where it does not have to be).[61]

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[56] Fraidin Interview, *supra* note 28, transcript at 2.

[57] Gilson & Kraakman, *supra* note 2, at 574.

[58] The Chancery Court has yet to strike down a breakup fee due to its size, and in dicta has declined to strike down a breakup fee in a stock-for-stock deal amounting to 6.3% of deal value. *See* Phelps Dodge v. Cyprus Amax, 1999 WL 1054255 (Del. Ch. 1999).

[59] *See, e.g.*, Steven Lipin, *Is Warner-Lambert Defense Playing Fair?*, WALL ST. J. (Nov. 17, 1999) at C1 (describing "pooling-killing" 19.9% cross-options in Warner-Lambert/American Home Products friendly deal that prevented Pfizer from getting pooling treatment if it were to consummate its bid). However, Pfizer's bid, and subsequent victory, illustrates that even pooling-killing lockups are not complete barriers to an overbid.

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

[61] *See* Interview with Robert A. Kindler, Cravath, Swaine & Moore, in New York, NY (August 10, 1999), transcript at 4 ("[Y]ou have to look at deals as two separate [types] – one is in the *Revlon* mode, where you're clearly for sale, and one is where you're in a stock-for-stock deal, when you're clearly not for sale."), *cited in* Coates & Subramanian, *supra* note

B. First-Bidder Costs

The previous Part argued that the level playing field requirements imposed by *Revlon* allow effective trade decoding. Effective trade decoding, in turn, may reduces *ex ante* incentives to search for takeover targets if the costs of being a first bidder are significant. There are three such potential costs. First, there is the well-known cost of searching for targets, including both out-of-pocket costs (e.g., banker and lawyer fees, costs of due diligence) and opportunity costs (e.g., diversion from managing the business).[62] This cost is asymmetric because first bidders bear the cost of identifying the target and the cost of assessing its value, while subsequent bidders bear only the cost of assessing value. And even on this second component, a subsequent bidder can free ride on the first-bidder's (public) assessment of value if the common value component of the target's total value is sufficiently large.[63]

A second potential cost borne disproportionately by the first bidder is operational costs. First bidders typically extol the strategic benefits of the deal at the time of the initial announcement.[64] Empirical evidence indicates that the bidder suffers a reduced stock price if the deal is not consummated,[65] possibly because the announcement of the deal identifies a strategic hole that then goes unfilled.[66] Second bidders are typically unsolicited bidders, and therefore are

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29, at 320 n.29; BRUCE WASSERSTEIN, BIG DEAL (1998) at 667 ("An agreement to merge with a strategic partner is far more defensible against interlopers than a cash transaction.").

[62] *See* Frank H. Easterbrook & Daniel R. Fischel, *The Proper Role of a Target's Management in Responding to a Tender Offer*, 94 HARV. L. REV. 1161, 1177-78 (1981).

[63] *See, e.g.*, Carliss Y. Baldwin & Sugato Bhattacharyya, *Choosing the Method of Sale*, 30 J. FIN. ECON. 69, 88 ("Morgan Stanley had access to internal data and thus could estimate Conrail's value more precisely than outside bidders. . . . [However,] Morgan Stanley . . . had to contend with potential free riders. By bidding a specific amount, the firm conveyed to all observers its estimate of the minimum value of the company.").

[64] *See* Coates & Subramanian, *supra* note 29, at 363.

[65] *See* Michael Bradley, Anand Desai & E. Han Kim, *The Rationale Behind Interfirm Tender Offers: Information or Synergy?*, 11 J. FIN. ECON. 183, 199 (1983) (unsuccessful first-bidder loses 8% of pre-offer market value in 180 days after lost bid when second-bidder successfully acquires target).

[66] *See* Interview with Partner at New York City Law Firm, in New York, NY (June 14, 2000) ("Losing the deal has all sorts of consequences, because you go out and say to the world that this deal makes you complete, this is the deal I need, this accelerates our growth by three years, all the things you say to explain why a deal is attractive. Then if you lose it, you're implicitly admitting that you're not in a place you're comfortable with."). *See, e.g.*, Robert Langreth & Steven Lipin, *SmithKline Breaks Off Talks with Glaxo*, WALL ST. J. (Feb. 24, 1998) at A2 ("SmithKline . . . has invested heavily in new gene-sequencing technologies that have identified numerous new drug targets. But it is believed not to have the resources to develop all of them on its own. Glaxo has a huge research operation, but the company has struggled to expand rapidly in the wake of patent expirations for some of its biggest drugs."). In response to the aborted deal, the market erased $12.3 billion of Glaxo's market capitalization and $6.6 billion of SmithKline's, with the reputation of both drug makers and their top executives "deeply tarnished." *See* Robert Langreth & Steven Lipin, *Failed Merger Deal Drives Shares Down, Tarnishes Executives' Reputations*, WALL ST. J. (Feb. 25, 1998) at A3.

usually announced with far less fanfare or announcement of strategic fit – among other reasons, target management is typically not present when these bids are announced. Therefore deal "jumpers" may not bear the same operational costs as initial bidders.

Finally, there may be potential reputational costs that are borne disproportionately by a first bidder. In standard models of reputation, uncertainty about a player's "type" provides an opportunity to build a reputation for "toughness" (for example) in early rounds, in order to increase profits in later rounds.[67] Conversely, in the context of first bidders, having a deal taken away may create a reputation for weakness, which would then impose costs (or reduce opportunities for profits) in future rounds.[68] Fiduciary duty may constrain the extent to which the first bidder CEO could consider these future costs in making a current bid, particularly if (as seems likely) some of the reputational cost is borne personally by the CEO and not by the corporation. As with operational costs, reputational costs may be smaller for subsequent bidders because unsolicited bids are often viewed as a signal of strength in the MCC.[69]

Of course, operational costs and reputational costs can be substantially reduced for first bidders (in expectation) through lockup arrangements or other deal protection devices. But the critical point is that the ability to use such devices is severely constrained when the target is in *Revlon* mode. Thus taken together, search costs, operational costs, and reputational costs may be substantial for first bidders in *Revlon* transactions. The next Part discusses the implications of this point for market efficiency.

C. Impact on Market Efficiency

In a perfectly efficient small-block market, Grossman & Stiglitz argue that there will be no incentives to search because there is no opportunity to earn profits from searching. But if no one is searching for trading opportunities, then the market becomes inefficient, and there is once again an incentive to

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[67] *See, e.g.,* David M. Kreps & Robert Wilson, *Reputation and Imperfect Information*, 27 J. ECON. THEORY 253 (1982), Paul Milgrom & John Roberts, *Predation, Reputation, and Entry Deterrence*, 27 J. ECON. THEORY 280 (1982).

[68] *See* Coates & Subramanian, *supra* note 29, at 360.

[69] *See, e.g.*, KATHLEEN MCGINN & NICOLE NASSER, YAHOO!: BECOMING A COMPETITOR IN THE CAREER LISTINGS SPACE (A), Harvard Business School Case N9-903-071 (Feb. 7, 2003) at 14 ("[E]ven if Yahoo!'s bid for HotJobs was not ultimately successful [in breaking up the Monster.com/HotJobs deal], the market would know that [Yahoo Chairman and CEO] Semel and his team were serious and acting aggressively to turn the company around."); Steven Lipin & Anna Wilde Mathews, *Norfolk Likley to Seek CSX-Conrail Concessions*, WALL ST. J. (Oct. 17, 1996) (quoting one analyst describing Norfolk Southern as "the Darth Vader of the railroad industry," in the context of its hostile bid to break up the CSX-Conrail combination, and another describing it as "overpowering"). *See also* BRIAN HALL, CHRISTOPHER J. ROSE & GUHAN SUBRAMANIAN, CIRCON (A), Harvard Business School Case 9-801-403 (Dec. 5, 2001) (in which Circon CEO Richard Auhll describes hostile bidder U.S. Surgical as "an 800 pound gorilla," or "at least a 600 pound gorilla" compared to Circon's "100 pound gorilla.").

search.[70] Hence the "Efficiency Paradox," in which the market for small-block shares "would be doomed to an oscillating dynamic of enlightenment and ignorance."[71]

In the MCC, the potential for effective trade decoding in *Revlon*-land, combined with potentially large first-bidder costs, led some practitioners to predict a reduction in deal activity in response to *Revlon*.[72] Martin Lipton of Wachtell, Lipton, Rosen, & Katz, one of the most acclaimed and experienced takeover lawyers of the past thirty years, argues that *Revlon* has had precisely this effect:

> The board is interested in an offer because it's a balanced situation, where the employees will be treated decently, and so on, with the creation of a better company. And they will go forward with that transaction, if they are able to, but they would not if they had to put the company up for auction. I can't tell you how many situations exist and how many shareholders never get a premium because the board of directors says no, this lawyer has told us we have to auction off the company, we have *Revlon* duties, and therefore we can't go forward with this deal.[73]

Note the implicit extension to the conventional search theory model: in the scenario posited by Lipton, search costs have been overcome such that the target and bidder have found each other, but there are still obstacles to consummating the deal because the risk of deal-jumping is greater in *Revlon* transactions, which then generates large operational and reputational costs in expectation. To take the example from the previous Part, even if search is effective in revealing about Alpha, Inc. that "new management will yield $30 per share," no one may be willing to attempt a control transaction, because once the information has been revealed by one bidder another biddercan costlessly use that information to bid slightly higher.[74] And because no rational player has the incentive to attempt a control transaction as a first move, small-block traders will build no expectation about such a transaction into the market

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[70] *See* Gilson & Kraakman, *supra* note 2, at 577-78 & n.90 (citing Grossman & Stiglitz, *On the Impossibility of Informationally Efficient Markets*, 70 AM. ECON. REV. 393 (1980)).

[71] Gilson & Kraakman, *supra* note 2, at 577 (citing Grossman & Stiglitz, *supra* note 70).

[72] *See, e.g.*, Fraidin Interview, *supra* note 28, transcript at 4 ("One part of my reasoning [against *Revlon*] was that I believed that *Revlon* was going to discourage takeover activity, which I think is a bad thing to discourage."). *See also* Stephen Fraidin & Jon D. Hanson, *Toward Unlocking Lockups*, 103 YALE L. J. 1739, 1754-55, 1826-27 (1994) (criticizing *Revlon* and arguing for full enforcement of lockup provisions, subject only to the business judgment rule, as a means of encouraging search).

[73] Lipton Interview, *supra* note 1, transcript at 2.

[74] *Cf.* Interview with Blaine V. Fogg, Skadden, Arps, Slate, Meagher & Flom, in New York, NY, transcript at 3 (June 15, 2000) ("I had a situation recently where a company wanted to do a *Revlon* deal with a particular buyer for a number of reasons. The buyer was foreign, and needed the U.S. management. Now there was another company out there who was probably likely to pay a higher price, but the target didn't want to talk to them. So what do you do? They announced their deal; the other bidder came in and bid a high price and they won.").

price. The market remains inefficient under Fama's definition: information remains unincorporated into stock prices because the potential users of the information are afraid to grab it. Hence a "*Revlon* Problem," in which a Delaware Supreme Court decision that was clearly intended to improve market efficiency[75] might yield exactly the opposite result due to the *ex ante* effects described here. Unlike the "Efficiency Paradox" in the small-block market, in which the market oscillates between efficiency and inefficiency, the *Revlon* Problem has the potential to produce an inefficient equilibrium in the MCC.[76]

IV. *Revlon* in Practice

In Part III I argued that the Delaware Supreme Court's decision in *Revlon* facilitated trade decoding, which should then reduce incentives to search, which should then reduce overall market efficiency. In this Part I assess this theoretical prediction against deal activity since *Revlon*. I present empirical evidence that, while admittedly impressionistic, is inconsistent with the conclusion that *Revlon* deterred deals and, by implication, that *Revlon* significantly reduced efficiency in the 1990s M&A marketplace. I then identify three "drivers" of market efficiency in the context of *Revlon* transactions: small net bid costs, preemptive bidding, and heterogeneous buyers.

A. Empirical Evidence on Deal Incidence

Although the exact mix of consideration that triggers *Revlon* remains an open question in Delaware,[77] the Delaware courts have made clear that all-cash transactions result in a "change of control" that triggers *Revlon* duties, and that stock-for-stock mergers in which control remains in a publicly-traded, widely-held market of disaggregated shareholders do not give rise to *Revlon* duties.[78] Although most states outside Delaware follow *Revlon*,[79] California,

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[75] *See* Allen Interview, *supra* note 28, transcript at 3 ("I think that it was particularly the corporate law scholars, and maybe the Ph.D. economists as well, who advocated the market for corporate control as an essential part in the theory that *Revlon* was a wonderful event.").

[76] It is the stability of this equilibrium that makes *Revlon* a "problem" rather than a "paradox." *See* WEBSTER'S DICTIONARY, 10th ed. (defining paradox as "an argument that apparently derives self-contradictory conclusions by valid deduction from acceptable premises").

[77] *See, e.g.*, In re Santa Fe Pacific Shareholder Litigation, 669 A.2d 59, 70-71 (Del. 1995) (transaction in which 33% of the shares were acquired for cash does not trigger *Revlon*); In re Lukens Inc. Shareholder Litigation, 757 A.2d 720, 732 n.25 (Del. Ch. 1999) (merger in which consideration was 62% cash likely triggers *Revlon*). *See also* Equity-Linked Investors L.P. v. Adams, 705 A. 2d 1040, 1055 (Del. Ch. 1997) ("How this 'change in control' trigger [from *Revlon*] works in instances of mixed cash and stock or other paper awaits future cases.").

[78] *See* Joel B. Harris & Charles T. Caliendo, *Board of Directors' Revlon Duties Come Into Focus*, NEW YORK L. J. (Nov. 1, 1999); Melvin A. Eisenberg, *The Director's Duty of Care in Negotiated Dispositions*, 51 U. MIAMI L. REV. 579 (1997).

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Indiana, Pennsylvania, New Jersey, North Carolina, Ohio, and Virginia have explicitly rejected *Revlon* through a combination of statutory law and case law.[80] These seven states provide the basis for a natural experiment with respect to *Revlon*'s impact on search: if *Revlon* deals are indeed deterred, either these deals will be re-cast as stock deals (therefore placing them outside of *Revlon*-land unless the acquirer has a controlling shareholder[81]) or these deals will disappear.[82] Both scenarios lead to the same result, namely, that Delaware should have a lower percentage of cash deals than the seven states that have rejected *Revlon*. The prediction is unambiguous because the substitution effect (from *Revlon* deals into non-*Revlon* deals) and the price effect (*Revlon* deals

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[79] *See* DENNIS J. BLOCK, NANCY E. BARTON & STEPHEN A. RADIN, THE BUSINESS JUDGMENT RULE, Vol. I at 726 ("Courts in jurisdictions other than Delaware for the most part have reached conclusions similar to those reached in Delaware regarding the doctrine announced in *Revlon*.").

[80] *See* Jewel Cos. v. Pay Less Drug Stores Northwest, Inc., 741 F.2d 1555 (9th Cir. 1984) (in which a pre-*Revlon* California court held that "the Corporate Code of California does not adopt the auction model in regulating negotiated acquisitions."); IND. BUS. CORP. L. § 23-1-35-1(f) (rejecting "judicial decisions in Delaware and other jurisdictions . . . that impose a different or higher degree of scrutiny on actions taken by directors in response to a proposed acquisition of control of the corporation"); N.C. BUS. CORP. ACT §55-8-30(d) (same), First Union Corp. v. SunTrust Banks, Inc., 2001 N.C. Bus. Ct., 01-CVS-10075, P 62 (Aug. 10, 2001) (holding that the North Carolina statute "eliminate[s] by statute the unidimensional requirement imposed on directors by *Revlon*"); N.J. BUS. CORP. ACTS § 14A:6-1(3) ("[I]f . . . the board of directors determines that any proposal or offer to acquire the corporation is not in the best interest of the corporation, it may reject such proposal or offer"); OHIO GEN. CORP. L. §1701.59(c)(1), Lewis v. Celina Fin. Corp., 655 N.E.2d 1333 (1995) ("The law of the state of Delaware . . . as pronounced in *Revlon* . . . is not applicable in Ohio."); PA. BUS. CORP. L. §1715(c,d), Norfolk Southern Corp. v. Conrail, Inc., No. 96-7167 (E.D. Pa. Nov. 19, 1996) ("It seems that the Pennsylvania statutes were enacted with . . . *Revlon* . . . clearly in mind."); VA. STOCK CORP. ACT. §§13.1.690, 13-1-728.9, Willard ex rel. Moneta Bldg. Supply, Inc. v. Moneta Bldg. Supply, Inc., 515 S.E. 2d 277, 284 (Va. 1999) ("[T]he *Revlon* test is not applicable in Virginia."). While it is possible that all twenty-nine states that have passed constituency statutes have (implicitly) rejected *Revlon*, most of these statutes do not directly address the question of whether other constituency interests may trump shareholder interests. *See* Jonathan D. Springer, *Corporate Constituency Statutes: Hollow Hopes and False Fears*, 1999 ANN. SURV. AM. L. 85, 98 (1999). To provide as clean a test as possible in this murky area of corporate law doctrine, I therefore focus on the seven states that seem to have explicitly rejected *Revlon*. Among these seven, California may be an outlier because of its less managerially-oriented takeover law, *see* Guhan Subramanian, *The Influence of Antitakeover Statutes on Incorporation Choice: Evidence on the "Race" Debate and Antitakeover Overreaching*, 150 U. PENN. L. REV. 1795, 1854-56 (2002), and New Jersey may be an outlier because its rejection of *Revlon* is the most oblique. The results reported here do not change in any meaningful way when I exclude these two states, both individually and together, from the analysis.

[81] Paramount Communications Inc. v. QVC Network Inc., 637 A.2d 34, 43 (Del. 1993).

[82] For completeness, I note a third possibility, that the target would reincorporate into a non-*Revlon* state, though reincorporations were extremely rare in the 1990s. *See* Subramanian, *supra* note 80, at 1824 (Table 2) (reporting 373 reincorporations in the period 1991-2001, among a sample of approximately 8,000 public companies).

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are more "expensive" and therefore fewer are consumed) operate in the same direction.

To test this hypothesis, I compare the incidence of all-cash deals relative to the total number of deals, calculated as an eighteen-month rolling average, between Delaware and the seven states that have rejected *Revlon*, from November 1985, when the oral decision in *Revlon* was issued, to December 2002.[83]

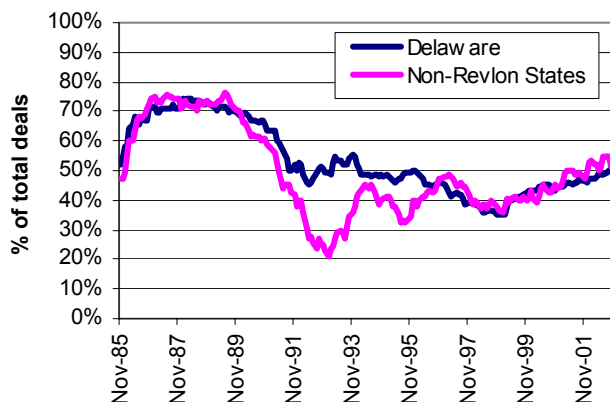*Figure 1: All-Cash Deals in Delaware versus Non-Revlon States*

Figure 1 shows that the incidence of all-cash deals relative to total deal activity actually increased in Delaware after *Revlon* was decided in November 1985, and did not decline after the written opinion was issued in March 1986. It might be argued that the test presented in Figure 1 only became meaningful after the Delaware Supreme Court's 1989 decision in *Time Warner*,[84] in which the Court carved out a safe harbor for stock-for-stock deals that gave practitioners a roadmap for how to avoid *Revlon*-land. Consistent with this theory, Figure 1 does show a decline in Delaware cash deals in the 1989-90 timeframe, in the aftermath of *Time Warner*. While it is possible that this trend demonstrates the *Revlon* Problem at work, the fact that the incidence of cash deals declined even further in the seven non-*Revlon* states during this same period provides some evidence against attributing the trend to *Revlon*. Or, put differently, the fact that the mix of consideration in non-*Revlon* states also shifted toward more stock and less cash suggests that macroeconomic and

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[83] This data comes from Thompson Financial Corp.'s mergers & acquisitions database. Mergers of equals (MOE's) and deals with second-bidders are excluded. "All-cash deals" are defined as 80% or greater cash consideration. "Non-Revlon" includes all deals in which the target is incorporated in one of the seven non-*Revlon* states: California, Indiana, Pennsylvania, New Jersey, North Carolina, Ohio, and Virginia. Unfortunately the Thompson Financial database is less comprehensive for M&A deals before the mid-1980s, thus preventing the cleaner test of cash deal incidence in Delaware pre- and post-*Revlon*.

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

business factors (e.g., stock market performance, or the nature of acquisitions) rather than *Revlon* are responsible for the shift in consideration mix during this period.

In unreported analyses, I examine only large transactions, defined using $50 million and $100 million thresholds, on the theory that these larger deals may be particularly prone to trade decoding. I also examine deal volume rather than number of deals. Finally, I examine deals only by financial acquirers, who generally use cash as an acquisition currency and hence are regularly in *Revlon*-mode, to see if these repeat players shifted their mix of deals away from Delaware targets in the aftermath of *Revlon*. In all of these analyses, the (non) results presented Figure 1 continue to hold.

Although this data is limited, it is consistent with conventional wisdom that deal activity, and hence search, was not deterred in the 1990s deal wave.[85] Of course, this evidence is inconsistent with the predictions of the *Revlon* Problem developed in Part III. While the large-sample evidence does not reject the possibility that some deals were deterred due to *Revlon*, it does suggest that this deterrence effect was not large. I now turn to potential explanations that would reconcile the theoretical account of *Revlon* developed in Part III and the empirical evidence presented here.

B. Potential Drivers of Market Efficiency

The evidence presented above suggests that incentives to search have been preserved in the 1990s MCC with respect to *Revlon* transactions. The question remains: How? Gilson & Kraakman offer two explanations for resolving the related Efficiency Paradox that is inherent in the small-block market: first, Grossman & Stiglitz's concept of "noise," most relevant with respect to price decoding; and second, joint cost characteristics that make the effective cost of information production negligible. On the first, Gilson & Kraakman state: "It is only because uninformed traders cannot infer all information from price – i.e., because prices are 'noisy' – that informed traders enjoy a return on their information up to the point at which further trading moves prices beyond the noise threshold."[86] But in *Revlon* transactions, because bid prices are publicly announced and first bidders cannot construct undue barriers against others, uninformed traders (e.g., second bidders) can infer full information from the first bidder's bid, and perfect trade decoding becomes possible.[87] Thus the "noise" explanation does not seem to explain why incentives for search are preserved with respect to *Revlon* transactions.

On the second explanation, Gilson & Kraakman argue that positive search costs do not trigger inefficiencies "to the extent that the expenditure

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[85] *See, e.g.*, Fraidin Interview, *supra* note 28, transcript at 4 ("Clearly the relationship between the ability to lock up a transaction and willingness to engage in takeover activity is virtually non-existent. That's what it appears to be.").

[86] Gilson & Kraakman, *supra* note 2, at 578 (citing Grossman & Stiglitz, *On the Impossibility of Informationally Efficient Markets*, 80 AM. ECON. REV. 393 (1980)).

[87] *See supra* text accompanying note 56.

necessary to acquire and process this information is made for another purpose."[88] As above, this explanation is not applicable to the MCC, because information that is exploitable in a control transaction is a particular kind of information about the target company that is generally not useful for other purposes.

In short, both of the explanations that Gilson & Kraakman put forward to explain the preservation of search incentives in the small-block market do not apply to the MCC. So the question remains: in a market in which all potential bidders get a relatively unfettered "last look" at every deal, and first-bidder costs are potentially large, what forces might nevertheless promote efficient transactions? Or put differently, how can we generate sufficient private returns to information when *Revlon* effectively transforms this information into a public good? Building on work by Easterbrook & Fischel,[89] Bebchuk,[90] and Gilson[91] in a now-classic exchange from the early 1980s, I offer three drivers of deal activity for *Revlon* transactions: small net first bidder costs, preemptive bidding, and heterogeneous buyers. I review these explanations in the remainder of this Part.

1. Small net first bidder costs

First-bidder search will not be deterred if first-bidder costs are small – in the extreme, note that the *Revlon* Problem disappears if first-bidder costs are zero. Commentators have debated whether search costs, an important element of total first-bidder costs, are large or small as an empirical matter.[92] Even in situations where search costs are small, I argue in Part III.B that potential operational and reputational costs may be large for *Revlon* transactions, thereby making total first-bidder costs large and deterring transactions.[93]

However, slight advantages to the initial bidder, possible even in *Revlon* transactions, may offset these first-bidder costs to make *net* first-bidder costs small. One such advantage is a toe-hold position in the target's stock: under current SEC rules, a bidder can secretly take a toe-hold up to 5%, which

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[88] Gilson & Kraakman, *supra* note 2, at 624.

[89] *See* Easterbrook & Fischel, *supra* note 62; Frank H. Easterbrook & Daniel R. Fischel, *Auctions and Sunk Costs in Tender Offers*, 35 STAN. L. REV. 1 (1982)

[90] Lucian Arye Bebchuk, *The Case for Facilitating Competing Tender Offers*, 95 HARV. L. REV. 1028 (1982) [hereinafter Bebchuk, *Case for Facilitating*]; Lucian Arye Bebchuk, *The Case for Facilitating Competing Tender Offers: A Reply and Extension*, 35 STAN. L. REV. 23 (1982) [hereinafter Bebchuk, *Reply and Extension*].

[91] Ronald J. Gilson, *A Structural Approach to Corporations: The Case Against Defensive Tactics in Tender Offers*, 33 STAN. L. REV. 819 (1981) [hereinafter Gilson, *Structural Approach*]; Ronald J. Gilson, *Seeking Competitive Bids Versus Pure Passivity in Tender Offer Defense*, 35 STAN. L. REV. 51 (1982) [hereinafter Gilson, *Seeking Competitive Bids*].

[92] Compare Bebchuk, *Case for Facilitating*, *supra* note 90, at 1036-37 and Gilson, *Structural Approach*, *supra* note 91, at 870 (arguing that search costs are small) *with* Easterbrook & Fischel, *supra* note 62, at 1177 n.41 (arguing that search costs are large).

[93] *See* text accompanying note 73.

it can then sell to the eventual winner in the event of an overbid.[94] In addition, a first bidder can negotiate a modest breakup fee, ranging 2-3% of deal value, even for a transaction in *Revlon* land, if the fee induces a bid that otherwise would not be made.[95] Both of these devices can give first bidders some slight advantage that might compensate for operational and reputational costs.

Admittedly, both toeholds and breakup fees provide imperfect compensation for first bidders. On toeholds, Easterbrook & Fischel point out that toeholds allow the first bidder to capture only a small fraction (e.g., 5%) of the total gains, which may be insufficient to encourage an optimal level of search.[96] And on breakup fees, practitioner interviews suggest that the fee levels that are permissible in *Revlon*-land are inadequate to fully compensate for the costs of jumped deals.[97] But these instruments might at least provide some offset against the search costs, operational costs, and reputational costs identified in Part III.B, which would then provide some partial resolution of the *Revlon* Problem.

2. Preemptive bidding

Preemptive bidding may also provide part of the explanation. A basic model of preemptive bidding illustrates the point:[98] Bidder 2 observes Bidder 1's bid and then must decide whether to enter. If Bidder 2 enters, then (by assumption) Bidder 1 and Bidder 2 compete in an ascending auction until one drops out. In a pure common-value situation in which both parties have the same information, the bids increase to the full value of the target, and the winning bidder earns zero profits. Thus, if there are positive entry costs to bidding, an equilibrium exists in which Bidder 1 bids less than the full value of the target and Bidder 2 does not bid.[99] In this equilibrium Bidder 1 makes positive profits, thus preserving *ex ante* search incentives even for targets in *Revlon* mode.

Of course, there are problems with this stylized model of bidder behavior that make preemptive bidding less than a complete resolution of the *Revlon* Problem. First, preemptive bidding most effectively deters further

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[94] *See* Bebchuk, *Case for Facilitating*, *supra* note 90 at 1035; Gilson, *Structural Approach*, *supra* note 91, at 871-72.

[95] *See* BLOCK, BARTON & RADIN, *supra* note 79, at 771.

[96] *See* Easterbrook & Fischel, *supra* note 89, at 4-5 (1982) ("If, after finding oil, Exxon had to announce its discovery and wait for an auction on the tract in question, it would undertake a suboptimal amount of searching. It would be cold comfort to Exxon that it could buy five percent of the oil-bearing land before it entered the contest for the other 95 percent on equal terms with its passive rivals.").

[97] *See* Coates & Subramanian, *supra* note 29, at 361 n. 151 (quoting one practitioner as saying: "If somebody takes the deal away, I at least want something coming back. I'm not in it for the breakup fee, but it's a form of insurance." And another: "It's a consolation prize, but I try to insist on it if I'm on the buy-side.").

[98] This model is derived from Bebchuk, *Case for Facilitating*, *supra* note 90, at n. 45. For a more formal model of preemptive bidding in the takeover context, *see* Michael J. Fishman, *A Theory of Preemptive Takeover Bidding*, 19 RAND J. ECON. 88 (1988).

[99] *See* Bebchuk, *Case for Facilitating*, *supra* note 90, at n. 45.

entrants in a pure common value situation; if there is some private value element to the auction, or at least some uncertainty as to whether the auction is purely common value, then preemptive bidding becomes a less effective deterrent to subsequent bidders. The reason is that if Bidder 2 perceives at least some private value to the asset, then there is some possibility (depending on Bidder 1's private value) for positive profits to Bidder 2 from entering the contest. In a pure private value situation, a second bidder will enter if it estimates that the difference between its private value and the first bidder's private value (i.e., the second-bidder's expected profit from the auction) is greater than its bid costs, a calculation that is largely independent of the first-bidder's bid. In this scenario preemptive bidding only works to the extent that it signals a bidder's high private value, which may be a costly signal to give.[100]

A second problem with the preemptive bidding explanation is that it assumes positive bid costs for a second bidder. In Part III.B I argued that bid costs (in the form of search costs, operational costs, and reputational costs) are lower for a second bidder relative to the first bidder. If second-bidder bid costs were zero, then a second-bidder might enter simply to test the first bidder's willingness to pay full value for the target.

Third, robust evidence from social psychology suggests that individuals often do not look forward and reason back in the manner required by the preemptive bidding model.[101] While I argued in Part II.B that actors in the MCC are generally more rational than actors in the small-block market, full rationality may be too strong of an assumption even in this arena.

Despite these potentially problematic assumptions of pure common value, positive second-bidder bid costs, and full rationality, preemptive bidding may have resolved the *Revlon* Problem for some deals in the MCC. Take Pennaco Energy, for example, a Delaware corporation that began soliciting cash takeover offers in September 2000. As a pure-play gas exploration company, Pennaco was basically a common-value asset, in which all bidders were trying to guess the (same) value of the "proven," "probable," and "possible" reserves.[102] The Pennaco board negotiated exclusively with Marathon Oil and reached an agreement at $19 cash per share, with a 3% breakup fee.[103] Because the deal was not shopped pre-announcement,[104] other

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[100] *See, e.g.*, Interview with Morris Kramer, Skadden, Arps, Slate, Meagher & Flom, in New York, NY (Mar. 14, 1997), *cited in* Guhan Subramanian, *A New Takeover Defense Mechanism: Using an Equal Treatment Agreement as an Alternative to the Poison Pill*, 23 DEL. J. CORP. L. 375, 404 n. 169 (1998) ("We go in with consideration that you can't challenge, we go as high as economically feasible, and we say we're here forever with this price.").

[101] *See, e.g.*, MAX H. BAZERMAN & MARGARET A. NEALE, NEGOTIATING RATIONALLY (1992) 11, 49 (describing $20 Bill Auction and Acquiring a Company problem as illustrations of inability to look forward and reason back).

[102] *See* In re Pennaco Energy, Inc., 787 A.2d 691, 700 (Del. Ch. 2001) ("[I]t is critical to note that gas companies like Pennaco are valued principally on their ability to produce natural gas.").

[103] *Id.* at 702-703.

potential bidders might have reasonably inferred that an overbid could be profitable, particularly because the breakup fee was relatively small. But the difficulty in assessing the Reserve Report (i.e., bid costs),[105] combined with the likelihood that Marathon Oil would also engage in incremental bidding, might have allowed Marathon's preemptive bid to stand, thus allowing Marathon to make a profit on the deal even though it was a *Revlon* transaction. As described in the Delaware Chancery Court opinion, Gregory Pipkin, a Lehman Brothers partner who was retained by Pennaco toward the end of the negotiations with Marathon, "got edgy at the time of the release [announcing the transaction] and made phone calls to a list of industry players who he believed might be inclined to make a topping bid."[106] But no other bidders appeared, and Marathon closed the transaction in March 2001.[107]

3. Heterogeneous buyers

The final explanation is heterogeneous buyers.[108] To illustrate this point, consider a different piece of information about the hypothetical company posited at the beginning of Part II: instead of information about managerial deficiencies, this information is about synergies: "A combination between Alpha, Inc. and Beta, Inc. would make Alpha worth $30 per share." This information suggests a strategic acquisition rather than a disciplinary acquisition. In the small-block market, the same mechanisms operate to reflect this information in stock price.[109] These mechanisms will work to increase the stock price from $15 to $30 per share in proportion to the likelihood that the strategic acquisition will occur, discounted by the time it is expected to take. But in the MCC, there is now an important difference in the mechanisms of market efficiency: *only* Beta, Inc. is able to realize the full gains from this information by effectuating the acquisition.

In the deal wave of the 1990s, there was almost always more than one potential buyer who had at least some opportunity for synergistic gains with the target. But among these buyers, there will be only one who would be the highest-value buyer. For this buyer, the incentives for search are substantial, because basic auction theory predicts that it will have to pay only slightly more than the next-highest buyer in order to win the target. The highest-value buyer

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[104] *Id.* at 699 ("[N]either Pennaco's board nor its management did anything to canvass the market. Nor did Pennaco retain an investment banker for this purpose.").

[105] *Id.* at 700 n.8 (describing the valuation of gas reserves as "quite complex").

[106] *Id.* at 701.

[107] Of course, another interpretation is that Marathon Oil simply paid top dollar as a first move. The Lehman valuation suggested that Marathon paid toward the higher end of fair value, though this valuation was done after Marathon had already submitted its $19 per share offer, *see* i*d.* at 702, and Pipkin "happened to be a personal friend" of the Pennaco CEO and CFO and earned $3 million for his firm from the transaction. *Id.*

[108] Easterbrook & Fischel, *supra* note 62, at 1177 n. 41; Bebchuk, *Case for Facilitating*, *supra* note 90, at 1036.

[109] *See* text accompanying note 14.

can be confident in making a bid, even if it must compete on a level playing field, because the surplus will not be competed away by other bidders.

Which kind of information was more prevalent in the 1990s MCC? – the "disciplinary" information described in Part II.A, or the "strategic" information described here? If we assume that intra-industry acquisitions, in general, are more likely to be motivated by strategy and less likely to be motivated by discipline, the 1990s takeover wave seems to have been driven more by strategic information than by disciplinary information. Figure 2 compares intra-industry acquisitions between the 1980s takeover wave and the 1990s takeover wave, by industry and overall:[110]
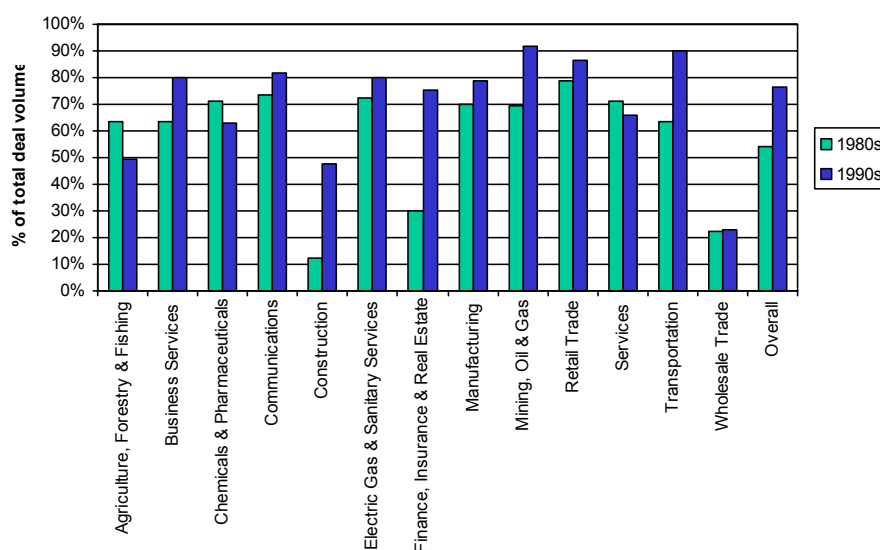
Figure 2: Intra-Industry Acquisitions

Figure 2 shows a substantial shift in the deal mix between 1980s takeovers and 1990s takeovers. Although the pattern does not hold for every industry, the general trend is toward more intra-industry acquisitions: in the 1990s, more than three-quarters of all acquisitions were intra-industry, compared to just over half in the 1980s. These statistics are consistent with conventional wisdom characterizing the 1990s takeover wave as more strategic and less disciplinary than the 1980s wave.

An important implication of this finding is that the likelihood of heterogeneous buyers increased substantially in the 1990s: if potential buyers are motivated by strategic fit, then this fit is almost certainly different across

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[110] This data comes from George P. Baker & Guhan Subramanian, The Global Market for Corporate Control (unpublished data, on file with author). To facilitate comparisons across countries, this data set uses a $100 million threshold for transaction size.

buyers. The common value regime hypothesized in Part II.A, in which potential buyers must estimate the (same) value of the target under improved management, was replaced in the 1990s by a private value regime, in which potential buyers estimate the value of the target to them. As described by Stephen Fraidin of Fried Frank, the sale of Pioneer Hi-Bred to DuPont in 1999 illustrates this point:[111]

> There were only half a dozen potential buyers for the company. The investment bankers were pretty sophisticated about figuring out what Pioneer Hi-Bred would add to each company, and the decision was made to go to DuPont. We [Pioneer Hi-Bred management and deal team] pushed DuPont very hard on price and we gave them no lockup whatsoever – not even a breakup fee. Nobody competed with DuPont. I'm absolutely convinced that we couldn't have gotten a higher price. If we could have, why wouldn't someone have made a competing bid?[112]

The difference between the heterogeneous buyer resolution of the *Revlon* Problem and the preemptive bid resolution is that the highest-value buyer in a heterogeneous buyer situation continues to earn positive profits even if another bidder appears. In the Pioneer Hi-Bred example, if DuPont was in fact the highest-value buyer (as the banker research seemed to suggest) then it would be able to outbid other bidders who might appear (say, because second-bidder costs were low or zero) and still earn positive profits. Thus the heterogeneous buyer solution is less risky than the preemptive bidding solution because it does not rely on the expected moves of other players in order to yield positive profits.

C. Synthesis

The three explanations put forward in this Part – small net first-bidder costs, preemptive bidding, and heterogeneous buyers – are not mutually exclusive. In fact all three drivers may be at work in any particular situation in overcoming the *Revlon* Problem. But among these three, the most important driver of market efficiency for *Revlon* transactions in the 1990s MCC seems to have been heterogeneous buyers. Economic theory and anecdotal evidence suggest that first-bidder costs may be substantial for at least some first bidders, particularly when reputational and operational costs are also considered, and that toe-holds and breakup fees may not be sufficient to mitigate these costs. Between preemptive bidding and heterogeneous buyers, the answer turns largely on the extent to which the 1990s MCC was a common value game or a private value game. The importance of strategic mergers during the 1990s, even in the context of *Revlon* transactions, suggests primarily a private value

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[111] Although Pioneer Hi-Bred was incorporated in Iowa, which has not articulated a view on *Revlon* either through state statute or common law, practitioners generally assume that other states follow Delaware in the absence of explicit guidance to the contrary. *See supra* note 79.

[112] Fraidin Interview, *supra* note 28, transcript at 4.

game, which in turn suggests heterogeneous buyers as a more important driver than preemptive bidding in achieving value-creating deals in *Revlon* mode.

If correct, this conclusion provides implications for what might lie ahead, in the aftermath of the 1990's merger wave. Buyer heterogeneity is a more robust driver of market efficiency than preemptive bidding with respect to *Revlon* transactions because it preserves incentives to search independent of the moves of other players. If we were to return to a 1980's-style MCC, motivated more by disciplinary information and less by synergistic information, then the MCC might become more of a common value game in which preemptive bidding was a more important driver of market efficiency than buyer heterogeneity. But preemptive bidding may be a less reliable driver with respect to *Revlon* transactions because of the problematic assumptions of pure common value, positive second-bidder costs, and full rationality described above.[113] These difficulties may be surmountable, as the evidence from 1985 to 1989 would seem to suggest,[114] but there are reasons to believe that the *Revlon* Problem would have more substantive bite in a common value regime than it seems to have had in the 1990s deal wave.

V. Conclusion

Gilson & Kraakman's *Mechanisms of Market Efficiency* provides a powerful lens for understanding the market for small-block shares. This Commentary extends their framework to a different but related market, the market for corporate control. Adopting Gilson & Kraakman's focus on the information market, I identify an informational connection between the small-block market and the MCC, but also identify important differences that provide distinct mechanisms of market efficiency in the MCC. These differences, combined with Delaware case law handed down just after *Mechanisms*, yield a "*Revlon* Problem," in which incentives to search and overall market efficiency are potentially lower than the socially optimal level.

However, I present some evidence in this Commentary that deal activity for *Revlon* transactions has not been reduced, and that, by implication, incentives to search have been preserved in the seventeen years since *Revlon* was handed down. I identify three drivers of market efficiency for *Revlon* transactions that might explain this finding: small net first-bidder costs, preemptive bidding, and heterogeneous buyers. I present some evidence suggesting that the 1990s MCC was a private-value game, implying that buyer heterogeneity was an important driver of market efficiency. Of course, the game might change in the future. A future merger wave that was closer to a 1980's-style disciplinary MCC would be more of a common value regime, in which the *Revlon* Problem might become more of a binding constraint.

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[113] *See supra* Part IV.B.2.
[114] *See supra* Figure 1.