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POST-*SILICONIX* FREEZE-OUTS:
THEORY, EVIDENCE AND POLICY

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Post-*Siliconix* Freeze-Outs: Theory & Evidence

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ABSTRACT: At approximately the same time that the Sarbanes-Oxley Act increased the costs associated with being a public company, important Delaware case law created a difference in the standard of judicial review for the two basic methods of freezing out minority shareholders. While a freeze-out executed as a statutory merger is subject to stringent “entire fairness” review, the Delaware Chancery Court held in *In re Siliconix Shareholders Litigation* that a freeze-out executed as a tender offer is not. This paper presents the first systematic empirical evidence on post-*Siliconix* freeze-outs. Using a new database of all freeze-outs executed during the current doctrinal regime, I find that controlling shareholders pay less to minority shareholders, on average, in tender offers relative to mergers. This finding introduces a puzzle as to why more than two-thirds of post-*Siliconix* freeze-outs still proceed through the statutory merger route. I present evidence that controllers are more likely to choose a merger when they hold a relatively small controlling stake, in order to avoid supermajority approval from the minority that would be required in a tender offer. I also present evidence that controllers are more likely to choose a tender offer when the controller’s outside counsel has substantial M&A experience. I discuss the doctrinal and policy implications of these findings in a companion paper. (Subramanian 2005)

JEL classifications: G30, G34, K22

Post-Siliconix Freeze-Outs: Theory & Evidence

Guhan Subramanian*

1. Introduction

Due at least in part to the general decline of the stock market since 2000, as well as the increased cost associated with being a public company under the Sarbanes-Oxley Act of 2002, freeze-outs have been on the rise. Between July 2001 and April 2005, 2.7 controlling shareholders per month, on average, have frozen out their minority shareholders, more than twice the rate reported by Coates (1999) for the period 1985-1996. At approximately the same time that freeze-out activity began increasing, important Delaware case law created a difference in the standard of judicial review for the two basic methods of freezing out minority shareholders. While a freeze-out executed as a statutory merger is subject to stringent “entire fairness” review, the Delaware Chancery Court held in *In re Siliconix Shareholders Litigation* that a freeze-out executed as a tender offer is not. Academic commentators and practitioners have debated whether this difference has created meaningful differences in practice, and if so, how judges and policymakers should respond.

This paper presents the first systematic empirical evidence on post-Siliconix freeze-outs. Using a new database of all non-short-form freeze-outs that were announced in the current doctrinal regime (n=121), I find that controlling shareholders pay less to minority shareholders, on average, in tender offers relative to mergers. This finding introduces a puzzle as to why more

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than two-thirds of post-*Siliconix* freeze-outs still proceed through the traditional merger route. I present evidence that controllers are more likely to choose a merger when they hold a relatively small controlling stake, because the supermajority approval from the minority that would be required in a tender offer can reduce or eliminate the advantages that a tender offer provides. I also present evidence that the identity of the controller's outside legal counsel influences the choice of transactional form. Specifically, when the controller's outside counsel has substantial M&A experience, the freeze-out is more likely to be executed as a tender offer, particularly when the controller is large and the target is incorporated in Delaware. I discuss the doctrinal and policy implications of these findings in a companion paper. (Subramanian 2005)

The remainder of this paper proceeds as follows. Part 2 provides background on freeze-out mechanics, describes the recent developments in the Delaware case law on freeze-outs, and summarizes the academic and practitioner literature commenting on these developments. Part 3 develops a theory of freeze-outs that yields four testable hypotheses. Part 4 tests these hypotheses against a new database of post-*Siliconix* freeze-outs. Part 5 provides two brief case studies that provide some texture to the econometric findings presented in Part 4. Part 6 discusses these findings. Part 7 concludes.

2. Background

A freeze-out (also known, with some occasional loss of precision, as a “going private merger,” a “squeeze-out,” a “parent-subsidary merger,” a “minority buyout,” a “take-out,” or a “cash-out merger”) is a transaction in which a controlling shareholder buys out the minority shareholders for cash or the controller's stock. The traditional route for executing a freeze-out uses the process outlined by the Delaware Supreme Court in *Weinberger v. UOP*¹ and *Kahn v.*

¹ 457 A.2d 701, 709 n.7 (Del. 1983).

Lynch Communication Systems:² the target board establishes a special committee (SC) of directors who are independent from the controller; the SC hires bankers and lawyers to advise it; and the SC negotiates with the controller over the terms of the deal, most importantly the price to be paid to the minority shareholders and whether the deal will include a non-waivable majority-of-the-minority (MOM) closing condition. If the controller and the SC reach agreement, the deal is submitted for the necessary board and shareholder approvals. If approved, the transaction is typically executed as a statutory merger or a two-step tender offer (that is, a first-step tender offer followed by a short-form merger), though occasionally it is structured as a reverse stock split or an asset acquisition by the controlling shareholder.

An alternative to the traditional route is a tender offer directly to minority shareholders. In this route, the controller announces the tender offer and seeks to get to 90% voting control. Typically the target board will appoint an SC of independent directors to evaluate the transaction, negotiate with the controller, and issue a 14D-9 recommendation to minority shareholders (approve, reject, neutral, or unable to take a position). If the controller gets to 90% voting control, it then executes a short-form merger, which does not require a shareholder vote, in order to eliminate the remaining (non-tendering) minority shareholders. Because 90% is the critical threshold, the controller often conditions its tender offer on getting to 90% control (a “90% condition”).³

² 638 A.2d 1110 (Del. 1994).

³ All states provide a short-form merger statute with a 90% control requirement, except Alabama, Florida, and Montana, which have an 80% control requirement. *See* ALA. CODE §10-2B-11.04; FLA. STAT. ANN. §§607.1104, 607.11045 (West); MONT. CODE ANN. §35-1-818. Even though the lower threshold would seem to make the tender offer freeze-out mechanism more attractive, there are no tender offer freeze-outs during my sample period in these three states. *See infra* Table 1.

2.1. Recent judicial developments

Freeze-outs are generally subject to “entire fairness” review by the Delaware courts, a stringent standard of review, because of their self-dealing nature (self-dealing because the controller is the buyer and typically dominates the seller’s board). Even procedural protections such as the use of a special committee or a MOM condition only serve to shift the burden of proof on entire fairness to the plaintiff.⁴ In June 2001, however, the Delaware Chancery Court held in *In re Siliconix Inc. Shareholders Litigation*⁵ that entire fairness review does not apply to tender offer freeze-outs, “unless actual coercion or disclosure violations are shown,” because the Delaware corporate code does not provide a statutory role for the target board in such an offer. Just one month after *Siliconix*, the Delaware Supreme Court held in *Glassman v. Unocal Exploration Corp.*⁶ that a short-form merger is also not subject to entire fairness review. Taken together, *Siliconix* and *Glassman* allow a controlling shareholder to avoid entire fairness review by executing its freeze-out as a tender offer followed by a short-form merger.⁷ The result is that the Delaware courts now afford different standards of judicial scrutiny to transactional forms that achieve the same result in practice, namely, the elimination of the minority shareholders.⁸

⁴ Kahn v. Lynch Communication Systems, Inc., 638 A.2d 1110 (Del. 1994); Rosenblatt v. Getty Oil, 493 A.2d 929 (Del. 1985).

⁵ 2001 WL 716787 (Del. Ch. 2001).

⁶ 777 A.2d 242 (Del. 2001).

⁷ See, e.g., Next Level Communications Scheduled 14D-9 (filed Jan. 23, 2003) (“Q: Why would Motorola launch an unsolicited tender offer, as opposed to discussing the matter and negotiating with Next Level’s Board of Directors? A: By making a tender offer directly to stockholders, Motorola is attempting to avoid having to negotiate with Next Level’s Independent Directors, who have a fiduciary responsibility to protect you. . . . Under Delaware case law, if Motorola were to negotiate a transaction agreement with the Independent Directors, Motorola would have a legal duty to deal ‘fairly’ with the minority stockholders and to pay a ‘fair price’ for your shares. Through the unsolicited tender offer, Motorola is trying to avoid its legal duty to pay you a fair price for your shares in any negotiated transaction and to treat you fairly as minority stockholders.”).

⁸ Abramezyk, Cincilla & Honaker (2003) and Wolfe (2002) argue that the result in *Siliconix* was dictated by the 1996 case *Solomon v. Pathe Communications*, in which the Delaware Supreme Court held that a tender offer made by a controlling shareholder was not subject to entire fairness review. However, Gilson & Gordon (2003) point out that *Solomon* was not a freeze-out situation and therefore could have been limited to its facts. Aronstam, Balotti & Rehbock (2004) add that the standard of review for the back-end short-form merger was only resolved by *Glassman*.

One year after the *Siliconix/Glassman* combination, the Delaware Chancery Court held in *In re Pure Resources* that a tender offer is not coercive, and therefore the *Siliconix* safe harbor applies, only if the offer is subject to a non-waivable majority of the minority tender condition; the controller guarantees to consummate a prompt short-form merger at the same price if it obtains more than 90% of the shares; and the controller makes no “retributive threats” in its negotiations with the special committee.⁹ The court confirmed, however, that if these conditions are met a freeze-out tender offer is not subject to entire fairness review.

2.2. Academic and practitioner commentary

Conventional wisdom among practitioners suggested that these doctrinal developments would have a significant impact on freeze-out transactional form and outcomes. According to the *Wall Street Journal*, “A couple of major court decisions handed down last year . . . essentially permit those big holders to buy the minority investors out on the cheap.”¹⁰ And the *Corporate Control Alert* stated: “The current thinking on minority buyouts, many lawyers say, boils down to two words: tender offer.”¹¹

Academic commentators have divided on how judges and policymakers should respond. At one end of the spectrum, Cannon (2003), Resnick (2003), and Levy (2004) argue for doctrinal convergence through entire fairness review for tender offer freeze-outs. Gilson & Gordon (2003) propose a middle-ground approach that eliminates entire fairness review if the controller has complied with the procedural protections identified in *Pure Resources* and the SC has veto power over the transaction, but imposes entire fairness review if the controller goes directly to

The results presented in Part 4 support the view that the *Siliconix/Glassman* combination created a new doctrinal contour.

⁹ *In re Pure Resources Shareholders Litigation*, 808 A.2d 421 (Del. Ch. 2002).

¹⁰ Robin Sidel, *Takeover Targets Force Up Offers in ‘Minority Squeeze-Out’ Deals*, WALL ST. J. (May 10, 2002) at C3.

¹¹ David Marcus, *Cleaning Up Your Corporate Structure*, CORPORATE CONTROL ALERT, at 20 (July 2003).

shareholders through a tender offer without gaining SC approval. Aronstam, Balotti & Rehbock (2003) similarly propose a hybrid approach, urging a “limited fairness hearing” for freeze-out tender offers, or an amendment to the Delaware appraisal statute to require the controller to pay all minority shareholders the appraised value of their shares.

At the other end of the spectrum, some commentators defend the *Siliconix/Glassman* doctrinal contour. Pritchard (2004) argues that the gap in standards of review represents a one-time wealth transfer from minority shareholders to controllers that will be solved *ex ante* through lower prices that investors will pay for a minority stake. Pritchard (2004) and Abramczyk, Cincilla & Honaker (2003) argue that minority shareholders have adequate protections against coercive tender offers even in the absence of entire fairness review. To support this view, some commentators point to the fact that target boards generally establish a special committee to negotiate with the controller even if the controller proceeds via tender offer. As illustrations, practitioners point to Intimate Brands’ negotiation with its controlling shareholder Limited; TD Waterhouse’s negotiation with its controller Toronto-Dominion Bank; and Prodigy Communications’ negotiation with its controller SBC Communications. All three of these deals were post-*Siliconix* freeze-outs executed through tender offers. In all three transactions, the target established a special committee of independent directors to negotiate with the controller. And in all three, the special committee was able to negotiate an increase over the controller’s initial offer. This anecdotal evidence suggests that a special committee in a tender offer freeze-out might have substantial bargaining power against the controlling shareholder.

The debate on the implications of the *Siliconix/Glassman* mechanism for freezing out minority shareholders has been hindered by the absence of any systematic empirical evidence.¹² Basic questions remain unanswered: What fraction of freeze-outs are executed as mergers versus tender offers? If both transactional forms continue after *Siliconix*, how do controllers decide which to use? Are outcomes different by transactional form? In the next Part, I formalize my approach to these questions by developing a theory of freeze-outs that yields specific predictions and testable hypotheses. In Part 4, I test these hypotheses against a new database of all post-*Siliconix* freeze-outs.

3. A theory of freeze-outs

In this Part, I develop a theory of freeze-outs that introduces three factors: the special committee's bargaining power; the shareholder approval requirement; and lawyer effects. I discuss each of these in turn.

3.1. Special committee bargaining power

All else equal, the SC may have more bargaining power against a controlling shareholder in a merger freeze-out than in a tender offer freeze-out for two reasons. The first reason is the SC's ability to veto the transaction.¹³ While a merger freeze-out, for all practical purposes, cannot

¹² In a recent working paper, Bates, Lemmon & Linck (2004) present empirical evidence on freeze-outs between 1988 and 2001. However, because of their long time window that ends just after *Siliconix* was decided, and because they require a freeze-out to be announced and completed within this timeframe in order to be included in their sample, only 5% of their deals (approximately) are post-*Siliconix* freeze-outs. The authors do not break out the post-*Siliconix* sample from their overall sample of freeze-outs. In addition, the authors classify mergers that are structured as two-step tender offers as "tender offers," even though this classification is doctrinally incorrect for reasons described at *infra* note 28 and accompanying text. Finally, the authors rely on Thomson Financial data to identify and measure bid increases. My experience from examining company SEC filings is that Thomson Financial data is unreliable for this purpose. See *infra* note 48. All of these factors make the authors' findings difficult to interpret, and not comparable to the results presented here despite the authors' efforts to do so.

¹³ See, e.g., WFS Financial Press Release (Sept. 26, 2002) ("WFS Financial announced today that it had received notice from Westcorp that the proposal to acquire the outstanding 16% minority interest of WFS has been withdrawn. . . . In its notice, Westcorp indicated that it had withdrawn that proposal and was terminating further discussions with the independent director special committee of WFS because the two special committees were unable to reach an agreement on a mutually acceptable exchange ratio for the proposed transaction.").

proceed without SC approval, a tender offer freeze-out does not require SC approval and, in fact, is often initiated by the controller even before the SC is formed. The second reason is the standard of judicial review, as described in Part 2.1. Entire fairness review for merger freeze-outs may increase price *ex post* through a judicially-mandated payout to the minority, or *ex ante* due to the “shadow” of a judicially mandated-payout (cf. Mnookin & Kornhauser 1979), or both.

Differences in bargaining power should create differences in outcomes. The testable hypothesis can be stated as follows:

H1: Controlling shareholders pay more in statutory merger freeze-outs than in tender offer freeze-outs.

An important question is to what extent Hypothesis H1 might be valid outside of Delaware, where *Siliconix* and *Glassman* are not binding precedent. As a starting point, I find that all U.S. states provides fairness review for self-dealing (“conflict”) transactions such as merger freeze-outs.¹⁴ The background corporate law of all U.S. states also provides that approval by a disinterested board committee cleanses the transaction of the self-dealing taint.¹⁵ Putting these features together means that all U.S. states provide judicial review for fairness, veto power for an SC of independent directors, or both, in merger freeze-outs.

Tender offer freeze-out doctrine is clearly different from this baseline approach on the question of SC veto power. The board’s role in a tender offer is determined by federal law, notably SEC Rule 14D-9, which requires the board or a committee thereof to issue a recommendation to the minority. Notably absent from this federal regime is any ability for the

¹⁴ See, e.g., REV. MOD. BUS. CORP. Act § 8.61(b)(3) (transaction immune from attack if “the transaction, judged according to the circumstances at the time of commitment, is established to have been fair to the corporation.”).

¹⁵ See, e.g., REV. MOD. BUS. CORP. Act § 8.61(b)(1).

SC to veto the deal – the most it can do is issue a recommendation to the minority against tendering. Therefore, SC veto power provides at least one source of differentiation between merger doctrine and tender offer doctrine that makes Hypothesis H1 a plausible hypothesis across all states.

Judicial standards of review present a less clear source of differentiation outside of Delaware. To my knowledge no other state has articulated a standard of review for the first-step tender offer, though it seems likely that other states would follow *Siliconix* on the theory that a tender offer does not involve board action, and therefore does not trigger fairness review. The back-end short-form merger is a closer call. Here, the controller is making use of the statutory framework that might plausibly trigger fairness review under the corporate code of other states. In *Yanow v. Teal Industries*,¹⁶ the Connecticut Supreme Court held that fairness review does not apply to a back-end short-form merger, as the Delaware Supreme Court would hold in *Glassman* twenty-two years later. No other state court seems to have addressed the standard of review question for the back-end short-form merger. This absence of case law is not surprising in view of the fact that even Delaware did not address this question until 2001.

If subsequent courts hold that short-form mergers are subject to entire fairness review, the only source of differentiation between the tender offer mechanism and the merger mechanism is the SC's ability to veto the deal. If instead other states explicitly or implicitly follow *Siliconix* and *Glassman*, the two differences in SC bargaining power that exist in Delaware are also present in these other states. I therefore present results throughout this paper for all targets, and for Delaware targets only. I also run interactions between Delaware incorporation and transactional form. Depending on the relative importance of SC veto power and judicial

¹⁶ 178 Conn. 263, 422 A.2d 311 (1979).

standards of review, as well as the implicit degree of endorsement of *Siliconix* and *Glassman* outside of Delaware, Hypothesis H1 may have a stronger theoretical grounding in Delaware than in other states.

3.2. Shareholder approval requirement

A second factor that might influence the price paid to minority shareholders is the approval required from minority shareholders. In assessing the costs and benefits of the *Siliconix* mechanism versus the traditional merger route, academic commentators to date have not noted important differences in the minority approval required across transactional forms. Specifically, the level of minority shareholder approval is determined by which of three transaction structures is used: a merger freeze-out without a majority-of-the-minority (MOM) condition; a merger freeze-out with a MOM condition; or a tender offer freeze-out. In this Part I examine each of these in turn.

First, a merger freeze-out without a MOM condition requires little or no approval from the minority. If the controller holds more than 50%, it can unilaterally approve the transaction by voting its shares in favor of the merger.¹⁷ If the controller holds less than 50%, it needs minimal approval from the minority. For example, a 40% controlling shareholder would require an additional 10% of shares outstanding, or 17% of the minority (10% out of the remaining 60%) in order to approve the transaction.¹⁸

¹⁷ See, e.g., Balanced Care Schedule 14A (July 19, 2002) (“For the merger to occur, the merger agreement must be adopted and the transactions it contemplates, including the merger, approved by the holders of a majority of the outstanding shares entitled to vote on the merger. IPC owns approximately 53% of our outstanding common stock. IPC has informed us that it intends to vote in favor of adoption of the merger agreement and approval of the transactions it contemplates, including the merger, and you should therefore expect that each of these will be approved at the special meeting regardless of the votes of any other stockholders.”).

¹⁸ See, e.g., Storage USA 8-K (Nov. 5, 2001) (“As of the record date, Security Capital beneficially owned 11,765,654 shares, or approximately 41.3% of our common stock. Security Capital has informed us that it intends to vote its Storage USA shares in favor of the purchase agreement and the Transactions. Storage USA’s directors and executive officers own approximately 2.3% of our common stock and to our knowledge they intend to vote their

Second, a merger freeze-out with a non-waivable MOM condition requires 51% of the minority shareholders outstanding to approve the transaction, regardless of the controller's pre-deal stake.¹⁹ For example, if the controller holds 40% initially, 51% of the minority, or 31% of the total outstanding shares, must support the freeze-out. If the controller holds 80% initially, again 51% of the minority, which this time amounts to 11% of the total outstanding shares, must support the transaction.

Finally, the level of minority shareholder support required in a tender offer freeze-out is inversely correlated with the controller's pre-deal stake, because the controller must get to 90% voting control in order to then execute a short-form merger. For example, if the controller holds 40%, it needs another 50% of shares outstanding, or 83% of the minority shares outstanding (50% out of the 60% of total shares held by the minority) in order to achieve the 90% voting control that allows it to execute a short-form merger. If instead the controller already holds 85%, then it only needs another 5% of shares outstanding, or 33% of the minority shares (5% out of the total 15% held by the minority) to get to 90%.²⁰ In general, the controlling shareholder in a

Storage USA shares in favor of the purchase agreement and the Transactions. Accordingly, the affirmative vote of holders of an additional 1,815,973 shares, which equals approximately an additional 6.4% of our outstanding shares of common stock, will be sufficient to approve the purchase agreement and the Transactions.”).

¹⁹ One MOM condition in the sample required only a majority of the shares voted. *See* Oriole Homes Corp. 8-K (filed Sept. 11, 2002) (“The combined voting power of the Levy Group and the Loeb Group is sufficient to satisfy the statutory approval requirement. In addition to the statutory approval requirement, the Merger Agreement provides that it is a non-waivable condition to our obligation to consummate the Merger that the Merger Agreement and the Merger are approved by a majority of the shares of Class A Common Stock and Class B Common Stock not beneficially owned by the Levy Group, voting together as a single class, that are cast in favor of or against approval of the Merger Agreement and the Merger at the Annual Meeting.”). For simplicity I assume 100% minority shareholder turnout in this transaction, which makes this condition the same as a standard MOM condition. The results in Part 4 do not change if I exclude this transaction from my analysis.

²⁰ Of course, a MOM condition would set a 50% floor on the minority approval needed in a tender offer freeze-out. *See, e.g.*, TD Waterhouse Group 14D-9 (Oct. 11, 2001) (“The Special Committee noted that because of the Majority of the Minority Condition, the Revised Offer cannot succeed unless a majority of the publicly-owned Shares are tendered. Absent that condition, due to TD Bank’s ownership of 88% of the Shares, the Purchaser and TD Bank would be able to attain ownership of 90% of the Shares even if only 16.6% of the Shares they do not already own were tendered in response to the Offer or the Revised Offer.”).

tender offer freeze-out must obtain $(90-k)$ percent of the total shares outstanding, or $(90-k)/(100-k)$ percent of the minority shares outstanding, where k is the controller's pre-deal stake.

If minority shareholders' reservation prices for their shares are normally distributed, then the supply curve for minority shares is upward sloping (Clark 1985:505-06; Booth 2001). The controller cannot price discriminate against this supply curve because all shareholders of the same class must receive the same price in a merger, and SEC Rule 14d-10 requires the controller to pay the same price to all shareholders who sell into a single tender offer.²¹ This analysis yields the following hypothesis:

H2: The price paid to minority shareholders increases as the required level of minority support increases.

In addition, the analysis in this Part suggests that transactional form may in part be a function of the controller's pre-deal stake. Specifically, the approval required from minority shareholders in a tender offer freeze-out suggests the following hypothesis:

H3: The likelihood of using a tender offer increases with the controller's pre-deal stake.

Hypothesis H3 highlights the importance of jointly testing Hypotheses H1 and H2. For example, if all large controllers proceeded via tender offer and all small controllers proceeded via merger (i.e., an extreme form of H3), then we might observe controllers paying less in tender offer freeze-outs not because of the SC's lesser bargaining power (H1), but rather because of the lower shareholder approval required in a tender offer relative to a merger freeze-out with a

²¹ This rule cannot be evaded through procedural maneuvering. *See, e.g.,* Field v. Trump, 850 F.2d 938 (2nd Cir. 1988) (holding that successive tender offers should be considered together for purposes of Rule 14d-10).

MOM condition when the controller is large (H2). In Part 4 I attempt to distinguish these two potential effects through the use of multivariate analysis.

3.3. Lawyer effects

A third factor is the role of lawyers. Academic and practitioner commentary to date assume that legal counsel will choose the optimal transactional form in freeze-outs, which in turn assumes that information costs and lawyer agency costs are small. Interviews and informal conversations with experienced New York City practitioners suggest that these assumptions may not be correct.²² A variation on this theme is the possibility that certain lawyers and law firms are less confident in recommending cutting-edge legal mechanisms to their clients.²³ These practitioner impressions yield the following hypothesis:

H4: The likelihood of using a tender offer increases when the controller's outside counsel has substantial M&A experience.

As above, there may be an interaction between Hypotheses H3 and H4: when the controller holds a relatively small stake, the controller's outside counsel may recommend a merger freeze-out, regardless of its M&A experience, in order to avoid supermajority approval from the

²² See, e.g., Telephone Interview with Charles Nathan, Global Co-Chair of M&A, Latham & Watkins, New York City (Feb. 20, 2004) (“All things being equal, which they never are, I would go the *Siliconix* route nine times out of ten. And I think that’s where most of the sophisticated M&A guys I talk to are. . . . But there may be lack of awareness on the part of many lawyers of the availability and value of the *Siliconix* structure. . . . Old habits die slowly. People who do this once every four years, don’t keep up with the literature and would just as soon do it the old way. And since it’s not wrong – no Delaware lawyer is going to say it’s a bad way to do it – there’s a huge amount of inertia here.”);

²³ See, e.g., Telephone Interview with Richard Hall, Partner, Cravath, Swaine & Moore, New York City (Mar. 4, 2004) (“In the current environment, I would say to a controlling stockholder, “it is very hard to see any reason to go the special committee route rather than the *Pure Resources* [tender offer] route.” But I believe there may be lawyers, who, when they observe some reluctance on the part of their controlling stockholder clients in acting unilaterally [through a tender offer], do not firmly enough impress upon them the benefits of the *Pure Resources* structure over the special committee structure. I think that certain New York City lawyers are more willing to be forceful in their advice to a client.”). Cf. Pak Mail Schedule 14A (“The merger structure for the transaction was selected for, among other reasons, its structural simplicity and ease of administrative execution, as opposed to more complex transaction structures.”).

minority. Only when the controller's stake is relatively large, and a tender offer freeze-out becomes more viable (H3), might we expect to see experienced law firms recommending tender offers at a higher rate than other firms. I test this possibility in Part 4.4.

4. Evidence

4.1. Data sources & methodology

I now test the hypotheses developed in Part 3 against a new database of all freeze-out transactions since *Siliconix*. I begin with all transactions coded as "Acquisitions of Remaining Interest" in Thomson Financial Corporation's Mergers & Acquisitions database, announced and resolved between June 19, 2001 (the date of the Delaware Chancery Court's opinion in *Siliconix*) and April 30, 2005.²⁴ Although TFC uses a 50% cutoff to distinguish acquisitions of remaining interests from acquisitions of a controlling interest, as a matter of Delaware corporate law (as well as real-world practicality) a shareholder with as little as a 35% holding can be a controlling shareholder.²⁵ I therefore supplement TFC's remaining-interest category with transactions in which the acquirer held 35-50% when the freeze-out was initiated. I exclude transactions in which the acquirer held 90% or more of the target's voting shares, because such transactions can be executed as short-form mergers that do not require a shareholder vote.²⁶ I also exclude remaining-interest acquisitions that are the second step of a third-party tender offer, because the

²⁴ An earlier version of this paper was posted on SSRN on April 13, 2004. Practitioner-oriented articles in the *American Lawyer*, *The Deal*, and *Corporate Control Alert* appeared soon after the posting, highlighting earlier versions of the findings reported here. However, I find no evidence that subsequent data are contaminated by these practitioner reports. See *infra* Table 5.

²⁵ See, e.g., *In re Cysive Inc. Shareholders Litigation*, 836 A.2d 531 (Del. Ch. 2003) (finding a 35% stockholder to be a controller).

²⁶ See, e.g., DEL. GEN. CORP. L. §253; RMBCA §11.05.

second step is invariably at the same price as the first step and the first step was negotiated at arms-length.²⁷ The final database includes 121 freeze-outs.

For each transaction, I examine SEC filings by the controller and the target company (primarily 8-K, 14D-9, 13E-3, 13D, and 14A filings), news reports, and company press releases to collect data on the bargaining process, such as whether a special committee of independent directors was formed to assess the transaction, the dates and sequence of offers and counter-offers, and the terms of the final agreement, if one was reached. Stock price data for each target company is taken from the Center for Research in Securities Pricing (CRSP) database or DataStream, where available, and otherwise from company SEC filings. Share ownership information is taken from Spectrum.

With two exceptions, I classify each freeze-out as either a statutory merger or a tender offer. One exception is Kontron AG's freeze-out of Kontron Mobile minority shareholders, which began as a merger freeze-out and was eventually executed as a tender offer, without target board approval. The other exception is USA Interactive's freeze-out of Ticketmaster minority shareholders, which began as a tender offer freeze-out and was eventually executed as a merger. I classify twelve merger freeze-outs that were executed as two-step tender offers as mergers, because the Delaware Chancery Court has held that these transactions are subject to entire fairness review.²⁸ Though admittedly a closer call, I also classify two freeze-outs that were

²⁷ See Brudney & Chirelstein (1978) ("Two-step takeovers, being acquisitions by outsiders, are not properly to be viewed as freezeouts in the first place. . ."). There is a gray area in distinguishing an arms-length transaction from a freeze-out if there is delay between the first and second steps of the transaction. See, e.g., Cede & Co. v. Technicolor, 684 A.2d 289 (Del. 1996). As a practical matter, most arms-length acquirers today wish to execute the second-step tender offer as quickly as possible in order to gain 100% of the anticipated economic benefit, to avoid uncertainty in applying dissenters' appraisal rights, to eliminate potential plaintiffs, to delist from the stock exchange, and to deregister under the 1934 Act. (Subramanian 2003) Perhaps as a result, self-dealing and arms-length transactions were clearly distinguishable in my database, with no transactions in this potential gray area.

²⁸ Hartley v. Peapod, C.A. No. 19025 at 40 n.26 (Del. Ch. Feb. 27, 2002) ("About this whole idea that this is a *Siliconix* transaction. It's not. It's a negotiated transaction between a majority stockholder and a special

executed as reverse stock splits as mergers, because the requirement of board action that seems to distinguish mergers from tender offers is met, and because the Chancery Court has subjected reverse stock splits to fairness review in other (non-freezeout) contexts.²⁹ The findings reported in this Part remain unchanged if I exclude reverse stock splits from the analysis.

To assess the outcome of each transaction, I calculate the premium implied in the controller's first offer and (for successful deals) the premium implied in the controller's final offer, over the average trading price of the target stock for 30 days and 60 days prior to deal announcement. I use two different time windows in order to minimize the effect of any run-up in the target stock price before the deal announcement.³⁰ I define the controller's first offer as the first formal offer that the controller makes to the target board. This offer is sometimes disclosed publicly at the time it is made, through a press release and 8-K filing by the target company, though more often it is disclosed after the transaction is announced in the company's Schedule 14A filing. In five transactions the controller proposed a price range as its first offer;³¹ in these cases I use the midpoint of the range as the first offer. Interestingly, in no case did the SC make the first offer, although in some transactions there were substantial discussions between the controller and the SC before the controller made its offer.

committee.”); *In re Emerging Communications Inc. Shareholders Litigation*, C.A. No. 16415 (Del. Ch. May 3, 2004) (freeze-out merger structured as two-step tender offer subject to entire fairness review).

²⁹ *Applebaum v. Avaya*, 805 A.2d 209 (Del. Ch. 2002).

³⁰ Interestingly, and in contrast to the arms-length deal context, the pre-announcement average target abnormal returns are not statistically different from zero in my freeze-outs sample, both for merger freeze-outs and tender offer freeze-outs. This finding is consistent with the intuition among practitioners that the number of advisors in freeze-outs is relatively small compared to the number of advisors in arms-length deals – most obviously, until the announcement of the deal only one side to the transaction (the controller) has even engaged legal and financial advisors. As a result deal leakage is relatively minimal, and the problem of pre-deal stock price run-up seems to be small.

³¹ *See, e.g.*, RDO Equipment Press Release (Dec. 16, 2002) (“Mr. Offutt [the controller] stated in his letter that he has not yet finally decided the offering price he is willing to pay for the Company shares he does not own. However, he has indicated that he is currently considering an offer in a range of \$5.22 to \$5.66 per share.”).

I define the final offer as the final agreed price at which the transaction closes. Because a final offer requires a completed transaction, I exclude failed transactions from this analysis. For stock deals, I convert the exchange ratio to a cash value using the pre-announcement stock ratios of the target and acquiror, because subsequent movements in the target and acquiror stock prices will be influenced by the deal announcement itself. For eight freeze-outs, I am unable to find meaningful pre-deal market prices for the target stock, either because the stock is extremely thinly traded,³² or because the target stock price is not reported in SEC filings on dates surrounding the transaction. These transactions are excluded from the analysis of deal outcomes reported in this Part. I also exclude SAZTEC International as an outlier observation. This very small merger freeze-out involved unreasonably large premiums of 400-600% depending on the baseline date used. If SAZTEC were included in the outcomes analysis, the results reported in this Part regarding the TENDER coefficient would become statistically stronger.

The controller's outside counsel in each transaction is identified using the contact information from the target's 14D-9 filing in a tender offer or the target's 14A filing in a merger, or from the acquirer's 13D filing. Because 14D-9 and 14A filings are not required in many unsuccessful deals, I am unable to identify the controller's outside counsel in eight freeze-outs. Following Coates (2001), I use the number of prior M&A transactions as a proxy for the M&A experience of the controller's outside counsel. Specifically, I use the Thomson Financial Corporation M&A database to tabulate the number of deals in which each law firm was either an advisor to the acquirer or the target, for all arms-length mergers and acquisitions of U.S. public

³² See, e.g., Pak Mail Schedule 14A (filed Nov. 6, 2002) ("Pak Mail's latest closing share price prior to the delivery of Duff & Phelps opinion was \$0.06 per share on September 19, 2002 [one month before the announcement of the transaction]. However, trading activity in Pak Mail's stock is extremely thin. From January 1, 2002 to October 14, 2002, Pak Mail's stock traded on only 18 days with a total of 10,000 shares changing hands. Based on its analysis of share prices and trading activity, Duff & Phelps does not believe that the latest available closing price provides an accurate indication of the value of Pak Mail's common stock.").

companies during the period 1990-2003. I use this measure as a rough proxy for each law firm's M&A experience. I also classify the fifteen law firms that have advised on the largest number of deals as "highly experienced" M&A law firms.³³

4.2. Data overview & summary statistics

Figure 1 shows the breakdown of the transactions in the sample based on the transaction form used, the resulting negotiation between the controller and the target, and the outcome of the negotiation.

[insert Figure 1 here]

At the highest level, Figure 1 shows that 70% of post-*Siliconix* freeze-outs are initially pursued as mergers, and, conversely, only 30% of deals have taken advantage of the "get-out-of-jail-free card" (Gilson & Gordon 2003) and "fire sale" (Pritchard 2004) that *Siliconix* seems to provide. This split represents a substantial increase over the pre-*Siliconix* era: using the same methodology I find that only 14 out of 242 freeze-outs (6%) were executed as tender offers between January 1996 and June 2001.³⁴ A Chow test for a break at a known date indicates that this difference in tender offer incidence is statistically significant at 99% confidence (Chow 1960). While some practitioners trace the roots of the *Siliconix* decision back to the Delaware Supreme Court's decision in *Solomon v. Pathe Communications* in 1996 (e.g., Wolfe 2002;

³³ In descending order, these law firms are (number of deals in parentheses): Skadden, Arps, Slate, Meagher & Flom (798), Sullivan & Cromwell (671), Simpson, Thacher & Bartlett (486), Dewey Ballantine (450), Morris, Nichols, Arsht & Tunnell (436), Wachtell, Lipton, Rosen & Katz (432), Shearman & Sterling (430), Richards, Layton & Finger (316), Cravath, Swaine & Moore (315), Fried Frank (311), Davis, Polk & Wardwell (276), Latham & Watkins (274), Gibson, Dunn & Crutcher (263), Cleary Gottlieb (258), and Jones Day (239).

³⁴ This calculation counts nine tender offer freeze-outs announced by ThermoElectron on a single day (January 31, 2000) as a single freeze-out. If these nine transactions are counted separately, the fraction of tender offer freeze-outs in the sixty-six months prior to *Siliconix* increases to 9% (22 out of 250), still substantially lower than the 28% rate for tender offers in the thirty months after *Siliconix*. Furthermore, I find no statistically significant differences in outcomes between tender offer freeze-outs and merger freeze-outs before *Siliconix*. In fact, though statistically insignificant, I find that premiums were slightly higher in tender offer freeze-outs than in merger freeze-outs in this pre-*Siliconix* period.

Abramczyk, Cincilla & Honaker 2003), the sharp increase in tender offer incidence after June 2001 suggests that the combination of *Siliconix* and *Glassman* provided a clearer articulation of the tender offer route than had previously existed.

This responsiveness to Delaware M&A case law is consistent with Coates & Subramanian (2000), which presents evidence that practitioners changed the nature of deal protection devices in response to certain Delaware deal protection decisions. Still, the finding on post-*Siliconix* choice of transactional form is in tension with the common assumption in the academic literature that practitioners have made frequent use of the *Siliconix* mechanism to avoid entire fairness review, and with some practitioner claims that virtually all freeze-outs since *Siliconix* have been executed via tender offer.³⁵ I explore this point in Part 4.4 below.

Examining further the thirty-six deals that were initiated as tender offers, in only four situations (all cases in which there were no independent directors) did the target not establish a SC to assess the transaction, negotiate with the controller, and provide a recommendation to the minority shareholders. This finding supports the point made by Pritchard (2004) and Abramczyk, Cincilla & Honaker (2003) that minority shareholders in a tender offer freeze-out still (almost always) have a bargaining agent in the form of a special committee. The question remains, however, whether the SC can bargain as effectively in the tender offer context as in a merger.

³⁵ For example, a partner at a major New York City law firm states: “I am not sure I can think of a going-private deal since *Pure Resources* [in August 2002] that has been done the old-fashioned way of negotiating a one-step merger agreement with a special committee of the target.” David Marcus, *Cleaning Up Your Corporate Structure*, CORPORATE CONTROL ALERT, at 20 (July 2003). In fact there have been 54 of these “old fashioned” deals since *Pure Resources*, and (as shown in Figure 2) 85 since *Siliconix*. Cf. *Pure Resources*, 808 A.2d at 443 (“The absence of convincing reasons for this disparity in treatment inspires the plaintiffs to urge me to apply the entire fairness standard of review to Unocal’s offer. Otherwise, they say, the important protections set forth in the *Lynch* line of cases will be rendered useless, as *all controlling shareholders* will simply choose to proceed to make subsidiary acquisitions by way of a tender offer and later short-form merger.”) (emphasis added).

Turning to the lower half of the Figure 2 roadmap, the general picture of the merger process seems to be vigorous bargaining between the SC and the controller, indicated both by the high rate of SC formation (80 out of 85 deals, or 94%) and the high rate of impasse between the controller and the SC (18 out of 80 deals, or 23%). In contrast, conditional on SC approval, minority shareholder approval seems to be only a minimal constraint: only 33% of one-step merger deals (18 out of 55) were subject to a MOM condition, and among these 18 deals all but one (Johnson Outdoors) received the requisite level of minority shareholder support.

A final point from Figure 2 is the consummation rate: 30 out of 36, or 83%, for deals initiated as tender offers, compared to 67 out of 85, or 79%, for deals initiated as merger freeze-outs. A t-test indicates that this difference in success rates is not statistically significant at 95% confidence. By way of comparison, Coates & Subramanian (2000) report that the completion rate for arms-length, friendly M&A transactions during the period 1988-1999 was 87%.

Table 1 provides the state of incorporation for the targets in the sample, broken down by choice of transactional form.

[insert Table 1 here]

Table 1 shows that 59% of freeze-out targets are incorporated in Delaware, higher than Delaware's overall market share of approximately 50% among U.S. publicly-traded companies (Subramanian 2002, Bebchuk & Cohen 2003). Delaware's larger market share among freeze-outs may be due to its more well-developed case law, which might promote freeze-outs, or because companies that contemplate moving between public and private status are more likely to incorporate in Delaware, or both. Table 1 also shows that Delaware's share varies by transactional form: 71% (25 out of 35) for tender offer freeze-outs, compared to 54% (45 out of 84) for merger freeze-outs.

Among the remaining states, California is a distant second in market share, with five merger freeze-outs and two tender offer freeze-outs. Florida is in third place with four merger freeze-outs and no tender offer freeze-outs. The remaining 39 freeze-outs are distributed across 24 U.S. states and a federal charter, with no state holding more than a 3% share.

Table 2A provides summary statistics, for all freeze-outs and broken down by transactional form. Table 2B provides the same summary statistics for Delaware targets only.

[insert Tables 2A & 2B here]

Examining shareholder characteristics, controllers who use the tender offer mechanism hold larger pre-deal stakes than controllers who use the merger mechanism, providing some support for Hypothesis H3. I test this hypothesis more carefully in the multivariate regressions reported in Part 4.3. Family groups are somewhat more likely to use the merger mechanism, or, conversely, controllers that are also corporations are more likely to use the tender offer mechanism. Specifically, Table 2A shows that founders or family groups account for nearly half of merger freeze-outs but only one-third of tender offer freeze-outs.

“Highly experienced” outside counsel are over-represented in the tender offer mechanism, accounting for 49% of tender offers and only 22% of mergers. The difference becomes more pronounced when Delaware targets only are examined: 63% of tender offers involve experienced outside counsel, compared to 21% of mergers. These findings are consistent with Hypothesis H4. I test this hypothesis more carefully in Part 4.5.

On deal characteristics, 21% of freeze-outs overall, and 26% of tender offer freeze-outs, involve stock rather than cash. This finding is inconsistent with Gilson & Gordon’s claim that

most post-*Siliconix* freeze-out tender offers have been for stock,³⁶ and also reveals that the disclosure of the bankers' valuation opinion, as urged in *Pure Resources*, is redundant for the three-quarters of tender offer freeze-outs that are subject to the same requirement under SEC Rule 13e-3.

On offer conditions, all but one tender offer freeze-out (97%) included a back-end guarantee at the same price as the initial offer.³⁷ More interestingly, Figure 1 shows that only 33% of all one-step merger freeze-outs (18 out of 55) include a MOM condition, and Table 1 shows that this proportion increases to only 43% of merger freeze-outs when 90% conditions in two-step merger freeze-outs are included as well. This low incidence is consistent with the fact that current Delaware doctrine shifts the burden on entire fairness with either a SC process or a MOM condition. Because the vast majority of post-*Siliconix* merger freeze-outs went through a SC process, there is no further inducement in these deals for the controller to provide a MOM condition. (Subramanian 2005)

On outcomes, Table 2A shows that freeze-out tender offers close in 119 days on average, compared to 196 days for mergers. This timing difference is consistent with conventional wisdom among practitioners that tender offers can serve to get cash to minority shareholders

³⁶ Gilson & Gordon at 785 n.172.

³⁷ See, e.g., RDO Equipment SC-TO-C filed by Ronald D. Offutt (Dec. 17, 2002) ("If the conditions to his offer were satisfied and the offer completed, Mr. Offutt stated that he would subsequently effect a 'short-form' merger of the Company with his acquisition entity. In this merger, the remaining Company stockholders would receive the same price paid in the tender offer, except for those stockholders who elected to exercise their appraisal rights under Delaware corporate law."). One back-end guarantee in the sample was not airtight. See SBC Communications Schedule SC-TO-T ("Q: If SBC Internet consummates the tender offer, what are its plans with respect to all the shares that are not tendered in the offer? A: If we consummate the tender offer, we intend to cause a merger to occur between Prodigy and SBC Internet . . . SBC Internet *presently intends* that the cash consideration paid in the merger will be the same as paid in the tender offer.") (emphasis added). I record this deal as having a back-end guarantee because, absent a change in circumstances, a lower price would have invited a fair price claim. Delaware law seems to require "the statement of intent to be sufficiently clear as to expose it [the controller] to potential liability in the event that it were to obtain 90% and not consummate the short-form merger at the same price." *Pure Resources*, 808 A.2d 421, 447 n.51.

more quickly.³⁸ In tender offer freeze-outs, 75% of minority shareholders, on average, tendered in to the front-end tender offer, though this statistic masks variation ranging from 20% of minority shares tendered (IIC Industries) to 99% (National Home Centers).

Finally, Table 2 reveals large differences in the premiums paid in tender offers and mergers. Consistent with Hypothesis H1, Table 2 shows that negotiated prices, as measured by increases over controllers' first offers and premiums over pre-deal market prices, are higher, on average, when the controller uses a merger compared to a tender offer. These differences are statistically and economically significant at every stage of the negotiation process. Using the average trading price of the target stock for 30 days prior to the deal announcement as a baseline date, Table 2A shows that average first offers are 13% higher in merger freeze-outs than in tender offer freeze-outs, and average increases from those first offers are 15% larger. Putting these findings together, final deal prices in successful deals are 23% higher in merger freeze-outs than in tender offer freeze-outs.³⁹ As shown in Table 2B, these outcome differences continue to be economically and statistically significant when Delaware targets only are examined.

4.3. Multivariate analysis of outcomes

I now run a multivariate analysis to control for other factors that are likely to influence deal outcomes. The independent variables of interest are TENDER and MINREQ. TENDER is a dummy variable set to 1 if the freeze-out is executed as a tender offer. Hypothesis H1 predicts that the TENDER coefficient will be statistically significant and negative. For reasons described

³⁸ See, e.g., WorldPort Communications SC-TO-T (filed Dec. 23, 2002) (“Q: Why is [the controlling shareholder] not seeking approval of its offer from WorldPort’s independent directors? A: We want to begin to realize the benefits of taking WorldPort private as soon as possible and believe that making a tender offer directly to WorldPort stockholders will be significantly faster than making a proposal for consideration by WorldPort’s independent directors and negotiating a merger agreement with those directors. We believe that the WorldPort stockholders are capable of evaluating the fairness of the Offer. We also note that over 80% of the shares not owned by us would need to be tendered to satisfy the Minimum Condition. Accordingly, we are not seeking to negotiate our Offer with WorldPort.”).

³⁹ The numbers are not exactly additive because failed deals drop out in the final offer calculation.

in Part 4.1, two freeze-outs (Kontron Mobile and Ticketmaster) cannot be readily classified as either merger freeze-outs or tender offer freeze-outs and therefore are omitted from the analysis in this Part. The results reported in this Part do not change if these transactions are classified according to the controller's initial expression of interest to the target (merger for Kontron Mobile, tender offer for Ticketmaster).

MINREQ is a scalar variable that measures the percent of minority shares that the controller needed in order to close the transaction. For tender offer freeze-outs, MINREQ is a monotonic transformation of the controller's pre-deal stake (CONTROL), as described in Part 3.2, and ranges from 45% (for a controller with a large pre-deal stake and no MOM condition in the deal) to 83% (for a controller with a small pre-deal stake). For merger freeze-outs, MINREQ ranges from 0 for merger freeze-outs without a MOM condition in which the controller holds more than 50% of the voting shares, to 50 for mergers with a MOM condition. Hypothesis H2 predicts that the MINREQ coefficient will be statistically significant and positive.

I control for other deal characteristics, such as the size of the deal (LNVAL, defined as the natural log of deal value) and whether the consideration is stock or cash (STOCK, set to 1 for stock deals). I also control for two aspects of the target shareholder profile. First, I control for the size of the controller's pre-deal stake, between 35 and 90. Larger controlling shareholders may have more influence over the bargaining process independent of its implications for the minority shareholder approval required. Indeed, in merger freeze-outs with MOM conditions, the requisite minority approval is entirely uncorrelated with the controller's pre-deal stake. Second, I control for the concentration of the minority stake using two proxies: the percent held by institutional investors, and the number of large-block institutional holders, defined as institutional holders with a 3% or larger stake. Institutions may have greater bargaining power

against the controller because of their greater sophistication, on average, relative to other investors. Alternatively, or in addition, large-block institutional investors may be able to coordinate more effectively among themselves, within certain legal constraints, which may give them greater bargaining power against the controller.

Finally, I control for two target and deal characteristics: whether the target is incorporated in Delaware, and whether the controller is a founder or family group. On the latter, FAMILY is set to 1 for targets in which the controller is a founder or family group. The intuition here is that families may be less likely to “turn the screws” on the SC than a corporate controller, regardless of the transactional form that is used.

All models are run as ordinary least squares (OLS) regressions. Because Cook-Weisberg tests indicate heteroskedasticity, I report White-corrected standard errors. The results are reported in Tables 3A & 3B.

[insert Tables 3A & 3B here]

Examining first offers, the TENDER coefficient is negative in Panel A, consistent with Hypothesis H1, but not statistically significant. However, when final offers are examined, the TENDER coefficient becomes negative and significant at 90% confidence using a 30-day baseline trading price, and at 95% confidence using a 60-day baseline trading price. Taken together these findings suggest that the most important (though not necessarily only) driver of outcome differences between tender offer and merger freeze-outs arises from the bid increases: specifically, controllers in merger freeze-outs make larger concessions to the SC than controllers in tender offer freeze-outs.⁴⁰ This finding generally supports Hypothesis H1.

⁴⁰ In a prior version of this paper that was posted on SSRN, I directly modeled bid increases and reported results that are consistent with this conclusion.

When Delaware targets only are examined (Panel B), the TENDER coefficient for final offers continues to be negative but is no longer statistically significant in Panel B. The weaker results in Table 3B may be due at least in part to the smaller sample size. In unreported regressions I introduce an interaction term DELAWARE*TENDER in the Table 3A models, to test the hypothesis that the tender offer effect captured in Table 3A is driven solely by Delaware targets. The coefficient for this interaction variable is not statistically significant, suggesting that the tender offer effect is broader than just Delaware targets. One potential interpretation of these findings is that differences in SC veto power drive at least some of the difference in outcomes between transactional forms. Another potential interpretation, not necessarily mutually exclusive, is that differences in judicial standards of review drive at least some of the difference in outcomes, and that the *Siliconix/Glassman* contour has been implicitly accepted in other states.

In contrast to these findings on Hypothesis H1, the results in Tables 3A and 3B do not support Hypothesis H2. The MINREQ coefficient is not statistically significant in any of the models, and has a negative sign (inconsistent with H2) in several regressions. In unreported regressions I use non-linear transformations of MINREQ and calculate MINREQ as a fraction of shares outstanding rather than the fraction of minority shares, and also do not obtain statistically significant results.

Among controls, the coefficient for LNVAL is negative in all models, and becomes larger in magnitude for final offers compared to initial offers. In Table 3B, LNVAL becomes statistically significant at 95% confidence for final offers. The intuition behind these findings might be that controllers are less likely to make concessions as the dollar value of those concessions increases.

No other coefficients are statistically significant at 95% confidence, except NUMINST, which is statistically significant in a direction opposite to what negotiation theory would predict.

In view of the lack of statistical significance among controls, I now run a parsimonious model that includes only a subset of the controls that were included in Table 3. Reducing the number of controls is particularly useful in a small sample in order to maximize degrees of freedom. Specifically, I eliminate the three variables under the heading of “Target Shareholder Profile,” none of which were statistically significant in the Table 3 regressions. I run the stripped-down model only using the final premium as the dependent variable, over the average trading price for 60 days prior to deal announcement. Results are similar when I run the model on the final premium over the average trading price 30 days prior to deal announcement. The results from this analysis are reported in Tables 4A and 4B.

[insert Tables 4A and 4B here]

Model #1 in Tables 4A & 4B shows the baseline specification, that is, the same model as reported in Table 3 but with the target shareholder profile variables omitted. The results from this baseline model are consistent with the results reported in Table 3, including the magnitude and statistical significance of the TENDER coefficient. The remaining models report results from three alternative specifications.

Models #2 and #3 focus on the influence of deal size on the results reported thus far. Freeze-outs overall are relatively small deals (e.g., median deal size of \$17.0 million among post-*Siliconix* freeze-outs, as reported in Table 1) and so while the negative coefficients for the tender offer variables reported in Table 3 are generally large in magnitude, the differences in outcomes between the two transactional forms may not be economically meaningful. Results reported thus far control for deal size by including the LNVAL variable in all specifications. I now examine

the influence of deal size in two more focused ways. First, Model #2 of Tables 4A and 4B runs the stripped-down model only on deals larger than \$10 million in deal value, on the grounds that smaller deals are more likely to involve illiquid stock or other pressures to sell to the controller that are unrelated to transactional form.⁴¹ Second, Model #3 of Tables 4A and 4B run the stripped-down model as a weighted regression, in which the weight for each observation is $\log(\text{deal size})$.

The results from both Model #2 and Model #3 are generally consistent with the overall results presented in Tables 3 and 4. Most importantly, the TENDER coefficient continues to be statistically significant and negative in all but one specification. LNVAL continues to be negative and statistically significant in some specifications, and highly significant in the weighted regression. For the first time MINREQ becomes statistically significant in the predicted direction in Model #2 of Table 4A, though this result is not robust to other specifications. No other control variables are statistically significant in any of the specifications reported in Models #2 and #3, in either Table 4A or 4B.

Finally, Model #4 in Tables 4A and 4B runs the model on cash deals only. Freeze-outs for cash are thought to be particularly problematic transactions in corporate law because the minority shareholders retain no ongoing interest in the enterprise. Table 2 shows that 71% of the deals in the sample are cash freeze-outs. The results from Model #4 show that the TENDER coefficient continues to be statistically significant and negative when cash deals only are examined, for all targets and for Delaware targets only.

⁴¹ At a conference at the University of Pennsylvania where this paper was presented, a transactional lawyer referred to these very small freeze-outs as “mercy killings.”

We might expect to see convergence in outcomes between tender offer freeze-outs and merger freeze-outs as lawyers and law firms become more comfortable with the tender offer mechanism, and a tender offer therefore becomes a better understood implicit threat in the freeze-out merger negotiations.⁴² To test this theory, I include in the Table 3 & 4 models a new interaction variable TENDER*LTREND, in which LTREND is calculated as the natural log of the number of days between the *Siliconix* decision and the deal announcement date. If merger freeze-outs are increasingly negotiated in the shadow of a tender offer freeze-out, as controlling shareholders and/or their legal counsel become more aware of the benefits of the tender offer route, the coefficient for the new TENDER*LTREND variable should be statistically significant and positive. However, in unreported regressions, I find that this new interaction variable, as well as standard transformations, is not stable in magnitude or sign, and is not statistically significant.

4.4. Analysis of transactional form

I now turn to the determinants of transactional form between mergers and tender offers. The theory developed in Part 3 predicts that the likelihood of using a tender offer should be increasing in the controller's stake (H3), and that outside counsel with significant M&A experience should be more likely to use a tender offer (H4).⁴³

⁴² I thank Jeff Gordon for this hypothesis.

⁴³ Two other potential determinants of transactional form can be dismissed at the outset. First, DEL. GEN. CORP. L. §203 and equivalent freeze-out statutes in other states might, in theory, require the controller to go through the merger route. However, I find no evidence that these statutes influenced transactional form in the deals in my database, likely because freeze-out statutes were intended to thwart arms-length acquirers and are easily avoided by controlling shareholders. For example, all but eleven of the controlling shareholders in my sample (89%) held their shares for the requisite holding period (three years in Delaware) and are thus exempt from the requirements imposed by freeze-out statutes. Among the eleven controllers that held their shares for less than the necessary holding period, all eleven acquired control with the consent of the target board (indeed, in the post-pill era, acquisition of control without consent would have been surprising), and thus fall within the exception provided by DEL. GEN. CORP. L. §203(a)(1) and analogous provisions in other states. In the post-pill era, freeze-out statutes have their bite primarily in arms-length sale of control situations. *See, e.g.*, In re Digex, Inc. Shareholder Litigation, 789 A.2d 1176 (arms-length buyer in sale of control seeking §203 waiver). To the extent that these sale of control transactions lead

I run a multivariate regression to control for other factors that might influence choice of transactional form. The dependent variable is TENDER, set to 1 if the controller executed the freeze-out through a tender offer, and 0 if the controller executed the freeze-out through a statutory merger. To test Hypothesis H3, I include the continuous variable CONTROL, defined as the controller's pre-deal stake, which is inversely correlated with the fraction of minority shares that would be needed in a tender offer freeze-out. Hypothesis H3 predicts that the coefficient for CONTROL should be statistically significant and positive.

To test Hypothesis H4, I model law firm experience in three ways. In one specification I include LOG(EXPERIENCE), where EXPERIENCE is defined as in Part 4.1. In a second specification I include a dummy variable EXPERIENCED?, set to 1 if the controller's outside counsel is one of the fifteen firms with the most M&A experience. In a third specification I include the scalar variable EXPERIENCED?*CONTROL, where CONTROL is the controller's pre-deal stake, to test a potential interaction between Hypotheses H3 and H4. The prediction is that the coefficients for all of these variables will be positive and statistically significant.

In order to provide a further test of Hypothesis H4, I include a continuous variable LTREND, calculated as the natural log of the number of days between the *Siliconix* decision and the deal announcement date. If law firms learned over time about the benefits of the tender offer mechanism, LTREND should be statistically significant and positive as well.

to a freeze-out, they are excluded from my analysis for reasons described in note 27 *supra*. A second potential determinant in choice of transactional form is Rule 14d-10, the all holders/best price rule, which may be triggered by side agreements made in conjunction with a tender offer. There is currently a split among the circuit courts of appeal in the application of this Rule to side agreements. Compare *Epstein v. MCA, Inc.*, 50 F.3d 644 (9th Cir. 1995) (focusing on the role of the transaction in the underlying tender offer) with *Kahn v. Va. Ret. Sys.*, 13 F.3d 110 (4th Cir. 1993) (focusing on whether the transaction was made "during or pursuant" to a tender offer). However, with the benefit of ten years of 14d-10 case law, careful drafting of side agreements can minimize if not eliminate 14d-10 risk. (Khmelnitskiy 2004)

As in the previous Part I include controls for Delaware incorporation (DEINC), whether the controller is a founder or family group, and the consideration used (STOCK, set to 1 for stock deals). I also control for the log of the transaction value (LNVAL), on the view that tender offers entail higher fixed costs than mergers, and so a tender offer becomes more likely as these fixed costs can be amortized over a larger deal value. In certain specifications I also include PCTINST and NUMINST to control for a potential influence of institutional investors on the controller's choice of transactional form.

The model is run as a probit regression, though results are virtually identical if I run the model as a logit. Because decisions on transactional form may not be independent within law firm, standard errors are adjusted for clustering by the controller's outside counsel. The results are reported in Tables 5A and 5B.

[insert Tables 5A & 5B here]

The results provide some support for Hypotheses H3. In Table 5A, the CONTROL coefficient is positive and highly significant in all models, in the predicted direction. In Table 5B, the CONTROL coefficient continues to be positive but is statistically significant at 95% confidence in only one out of four specifications.

The results also provide some support for Hypothesis H4 and the interaction between H3 and H4. The coefficients for the law firm experience variables are positive in all models. In Table 5A, the EXPERIENCED? dummy variable and the interaction EXPERIENCED?*CONTROL are statistically significant at 95% confidence. In Table 5B, the law firm experience variables are statistically significant in all specifications. One possible interpretation of these findings is that law firm experience plays an increasingly important role in the "sweet spot" of a large controller in a Delaware target. Outside of this sweet spot, the influence of the controller's

outside counsel is muted because the underlying benefits of the tender offer route are more ambiguous. For example, when the controller is small, the standard of review benefits of the tender offer route may be offset by the supermajority vote required; and when the target is not a Delaware corporation, the *Siliconix/Glassman* precedent may not apply.

To explore this “sweet spot” concept more closely, I examine the 29 freeze-outs in my sample involving Delaware targets in which the controller held more than a 70% stake. Seventeen of these deals were executed as tender offers (59%), and the remaining 12 (41%) were executed as mergers. However, dividing this sub-sample by the controller’s outside counsel reveals an important difference: when the controller retained “highly experienced” M&A counsel, the freeze-out was executed as a tender offer in 10 out of 11 deals (91%), compared to 7 out of 18 deals (39%) when the controller retained other outside counsel.

Interestingly, the one exception among the eleven “sweet spot” deals involving experienced outside counsel was Samuel Heyman’s freeze-out of the minority shareholders of International Specialty Products (ISP) in July 2002. Heyman has established a reputation over the past three decades as a tough bargainer in the takeover arena. For example, according to Bruck (1989:287), even junk bond king Michael Milkin, at the height of his power at Drexel Burnham in the mid-1980s, was willing to “take a beating” from Heyman in deal financing negotiations. Heyman’s reputation, then, may have given him considerable bargaining power against the ISP special committee despite going through the merger route. Consistent with this view, Heyman increased his first offer by only 3% (from \$10.00 to \$10.30) in order to gain SC approval.⁴⁴

⁴⁴ The end-game is particularly interesting: “On November 4, 2002, the Majority Stockholder authorized his legal advisors to indicate his potential willingness to increase the per share merger consideration to \$10.30 per share [from \$10.25]. In a meeting on that day, the special committee discussed the fairness of the proposal to ISP’s minority stockholders and agreed to reject the proposal of \$10.30 per share, but to inform the Majority Stockholder’s representative that . . . it would consider recommending the proposal at \$10.35 per share. The Majority

In closing this Part, I note that the results on law firm experience are generally less robust than the other findings presented in this paper. In unreported regressions, I classify firms as “highly experienced” if they are among the top ten in M&A experience, or the top twenty, rather than the top fifteen. In these alternative specifications, the EXPERIENCE coefficients are positive, consistent with Hypothesis H4, but generally not statistically significant at any conventional level. One possible interpretation of these (non)findings is that law firm network and learning effects operate among a particular set of New York City and Wilmington, Delaware law firms, rather than being more continuous.

4.5. Causation

Causation is a concern with respect to both deal outcomes and deal form. On outcomes, it is possible that the difference between merger freeze-outs and tender offer freeze-outs is due to some unobservable underlying factor that influences both transactional form and deal outcomes. For example, “aggressive” controllers may be more likely to choose a tender offer, and may also be more likely to bargain hard against the SC. What appears as an effect of transactional form, then, may simply be the effect of hard bargaining by the controller. While this causal story may provide a partial explanation for the results presented in Part 4.3, it is unlikely to provide a complete explanation. The reason is that if outcome differences were fully explained by some other factor (e.g., aggressiveness of the controller), then controllers would be indifferent between transactional forms, which would mean that controllers should choose transactional form randomly, which in turn would imply that we should not observe differences by transactional

Stockholder’s representative stated that the Majority Stockholder would not accept that share price, and that if the special committee could not recommend the proposed transaction at \$10.30 per share that the Majority Stockholder would withdraw the offer. . . . On November 6, 2002, the special committee met to discuss the Majority Stockholder’s response to the special committee’s attempts to increase the offer price of \$10.30 per share. . . . On November 7, the parties announced that the Majority Stockholder and the special committee had reached an agreement with respect to the merger at a price of \$10.30 per share in cash, subject to approval by ISP’s board of directors.” *See* International Specialty Products Schedule 13D.

form. The story in its strongest form, then, implies a circularity that is inconsistent with the empirical evidence presented in this paper. Put simply, transactional form must be doing at least some of the work in causing the differences in outcomes reported here.

Causation concerns with respect to choice of transactional form are less easily dismissed. It is possible that a controller is more likely to hire experienced outside counsel when it knows that it will execute its freeze-out via tender offer – that is, a client-driven effect rather than a lawyer-driven effect. In order to attempt to isolate the causal chain running from choice of outside counsel to transactional form chosen, I use a two-stage instrumental variable (IV) approach. Following the methodology introduced by Maddala (1983:246) and illustrated by Comment & Schwert (1995), I first run a probit regression to predict whether the controller will choose outside counsel that has substantial M&A experience. In the second-stage regression I replace the dummy variable EXPERIENCED with predicted values from the first-stage model. In these regressions (unreported), I find that the coefficients for EXPERIENCED and EXPERIENCED*CONTROL are consistently positive, as in Table 5, but they are not statistically significant at any conventional level. I therefore cannot rule out the possibility that the apparent connection between experienced outside counsel and transactional form is in fact driven by client selection of outside counsel.

5. Case studies

A comparison of two recent and high-profile freeze-outs provides some texture to the empirical findings presented in Part 4. In August 2004, Cox Enterprises (“CEI”) announced a \$8.3 billion merger freeze-out of the Cox Communications (“CCI”) minority shareholders. In January 2005, News Corp. (controlled by Rupert Murdoch) announced a \$6.0 billion tender offer freeze-out of the Fox Entertainment Group minority shareholders. The controller’s initial

approach in these two deals illustrates the difference in SC bargaining power described in Part 3.1. CEI's initial press release stated that: ““CEI expects the Board of Directors of CCI to form a special committee of independent directors to consider the proposal with the assistance of outside financial and legal advisors and to negotiate the proposal with CEI. Directors of CCI affiliated with CEI will not participate in the evaluation of the proposal, *which requires the approval of the special committee.*” (emphasis added) In contrast, Rupert Murdoch took a tougher bargaining approach in his initial letter to the Fox Entertainment board, stating in part: “While Delaware law does not require that News Corporation negotiate with the Fox board or reach any agreement with the Fox board concerning the offer, News Corporation would, nonetheless, be happy to meet with the special committee to answer any questions it might have.” In effect, CEI explicitly granted the CCI SC veto power over the deal, while Murdoch made clear that the Fox SC would not have the ability to hold up the deal.

The theory and evidence presented in this paper suggest that the differences in SC veto power and judicial standards of review were reflected in the outcomes of the two deals. CEI initially offered \$32 cash per share, representing a 16% premium over the pre-announcement trading price of CCI. After hard bargaining with the SC and plaintiffs' counsel, CEI agreed to pay \$34.75 per share, or a 26% premium over the pre-announcement trading price. News initially offered 1.9 News shares for each Fox Entertainment share, representing a 7% premium over the pre-announcement trading price of Fox. After brief negotiations, the Fox SC agreed to 2.04 News shares, or a 18% premium. These premium differences are economically significant: I estimate that if CEI had achieved the same 18% premium as News (rather than its actual 26% premium), it would have paid approximately \$650 million less to the CCI minority shareholders.

An obvious question then becomes why CEI choose a merger freeze-out structure. Indeed, the *Corporate Control Alert* reported that some lawyers were “scratching their heads” over this question.⁴⁵ This paper provides some evidence that the controller’s outside counsel plays a role in the choice of transactional form. CEI was advised by a Washington, D.C. law firm well-known for its telecommunications practice, but not well-known for its M&A expertise. In contrast, News Corp. was advised by Lou Kling, a partner at Skadden, Arps, Slate, Meagher & Flom in New York City and one of the most well-respected M&A practitioners today.⁴⁶

6. Discussion

At the highest level, the evidence presented in this paper rejects the assumption in most academic and practitioner commentary that many if not most post-*Siliconix* freeze-outs are executed via tender offer.⁴⁷ To the contrary, I find that more than two-thirds of freeze-outs in the current doctrinal regime are still executed through the traditional merger route. This divide in transactional form provides the basis for a comparison between the outcomes of tender offer and merger freeze-outs in the post-*Siliconix* era. The findings provides new insights on both deal outcomes and choice of deal form.

On outcomes, I find strong evidence that controlling shareholders pay less in tender offer freeze-outs than in statutory merger freeze-outs.⁴⁸ Interviews as well as informal conversations

⁴⁵ See David Marcus, *From Theory to Practice*, CORPORATE CONTROL ALERT (Dec. 2004) at 10 (“The way Cox Enterprises Inc. effected its \$8.3 billion buyout of the 38% public stake in Cox Communications Inc. brings an arcane distinction in Delaware corporate law to life. It also has some lawyers scratching their heads over how the parent is taking the country’s fourth-largest cable company private in one of the largest such deals ever done.”).

⁴⁶ Among other reasons, Kling is the co-author of a leading M&A treatise entitled NEGOTIATED ACQUISITIONS OF COMPANIES, SUBSIDIARIES AND DIVISIONS.

⁴⁷ See, e.g., Gilson & Gordon (2003) at 805 (“[W]hen rules governing one or another alternative get out of line, transaction planners are quick to adjust their strategies to compensate, such that the Delaware Chancery Court sees the implications of its previous decisions quickly and is promptly given the opportunity to adjust the rules and restore balance.”).

⁴⁸ This finding is inconsistent with Bates, Lemmon & Linck (2004), which reports a higher likelihood of a bid increase for freeze-outs structured as tender offers. As noted above, see *supra* note 12, this finding is difficult to interpret because the Bates et al. study incorrectly classifies mergers executed as tender offers as “tender offers.” In

with New York City and Delaware lawyers indicate that this finding is consistent with practitioner experience. For example, reacting to an earlier version of this paper presented at a panel discussion on freeze-outs held at the Harvard Law School, Jim Morphy, head of the M&A practice at Sullivan & Cromwell, stated:

In a tender offer the controlling stockholder, in effect, says to the other stockholders, “Here is my offer: the stock was trading at \$6.25, I’m willing to pay you \$8.00. That’s your choice – you can have \$8.00 or you can have \$6.25.” Because it is difficult for stockholders, as a group, to bargain collectively, the tendency if you are a stockholder is to take the \$8.00. Someone might have a mathematical analysis of how this all works but that is essentially what takes place in the absence of an effective bargaining agent like a special committee. In the merger scenario, given the difference in statutory and legal standards, the special committee is not as easily by-passed by the controlling stockholder. Therefore its choice is not between \$6.25 and \$8.00. Armed with information and sufficient authority, it can go out and negotiate for something better.

Charles Nathan, Global Co-Chair of the M&A department at Latham & Watkins in New York City, similarly states:

You can debate whether you do better economically in *Siliconix*. I happen to think you do. Because I think what you’re doing in *Siliconix* is negotiating with the market, you’re not negotiating with the special committee, in the sense that as long as your price will clear enough of the market to get to 90%, you win. And the market is not as effective a negotiator as a special committee – it doesn’t have the same discipline. . . . If you were to ask me, from a practical point of view, is there a difference in the leverage, the answer is vast. If this is a traditional negotiated transaction, the special committee has a lot more leverage.⁴⁹

addition to this coding problem, this different finding is likely explained by a systematic bias in the quality of Thomson Financial data, which the Bates et al. study relies on. Thomson Financial is far more likely to capture bid increases in tender offers than in mergers because bids (and therefore bid increases) are necessarily public in tender offers and not necessarily so in mergers. In my sample of post-*Siliconix* freeze-outs, in which I detect bid increases using SEC filings, I find that Thomson Financial missed 56% of bid increases in successful merger freeze-outs, compared to 13% of bid increases in successful tender offer freeze-outs. This systematic bias between tender offers and mergers in the Thomson Financial data set is likely to explain the difference between the findings reported here and Bates et al.

⁴⁹ Telephone Interview with Charles Nathan, Latham & Watkins (Feb. 20, 2004). *See also* Marcus, *supra* note 45, at 10 (“Most deal lawyers believe buyers pay less if they use the [tender offer] method, an instinct confirmed by the research of Guhan Subramanian.”).

Despite this consistency with practitioner experience, the finding on deal outcomes is in tension with some academic and judicial commentary that minority shareholders have equivalent protections in freeze-out tender offers and freeze-out mergers. For example, in *Siliconix* itself, Vice Chancellor Noble reasoned that “as long as the tender offer is pursued properly, the free choice of the minority shareholders to reject the tender offer provides sufficient protection.”⁵⁰ The evidence presented in this paper suggests that this is not the case, at least as measured against the benchmark of the freeze-out merger process.

These findings on deal outcomes also introduce a puzzle: why would controlling shareholders ever proceed via statutory merger? On this question the answer is less clear. I present evidence that controllers are more likely to proceed via merger when they hold a relatively small stake, presumably in order to avoid the high minority shareholder approval that would be required in a tender offer. I also present some evidence that controllers are more likely to proceed via tender offer when the controller’s outside counsel has substantial M&A experience, particularly if the controller is large and the target is a Delaware corporation. Of course, these results on law firm experience cannot, on their own, demonstrate the direction of causation, and it remains possible that clients who were predisposed to go through the tender offer route were more likely to hire outside counsel with more M&A experience. However, informal discussions with New York City practitioners suggests that the causation runs from law firms to transactional form, that is, a lawyer-driven effect rather than a client-driven effect, in which certain law firms, primarily headquartered in New York City, are more aware of, or comfortable with, “cutting edge” freeze-out techniques.⁵¹ If correct, this causal relationship

⁵⁰ In re *Siliconix*, 2001 WL 716787, at *6.

⁵¹ One commentator on this paper, who is a transactional lawyer at a firm not categorized as “highly experienced” in my sample, explained this conclusion with the point that larger firms with specialized M&A practices could invest in “M&A R&D,” while smaller, less specialized firms (such as his own) could not.

suggests that some controlling shareholders paid more than they had to in their freeze-out transactions because of their choice of outside counsel.

This conclusion is consistent with Coates (2001), which finds a difference between Silicon Valley and New York City law firms in the installation of takeover defenses at IPO firms during the period 1991-1992, but convergence between Silicon Valley and New York City firms by 1998. In fact, this study and Coates (2001) represent bookends that portray a similar picture: at both entry (IPO) and exit (freeze-out) from public status, new corporate law practices (takeover defenses, tender offer freeze-outs) seem to disseminate slowly across law firms. Coates (2001) infers that the new practice in question (takeover defense) was beneficial to clients from the fact that the incidence of defenses increased over time. This paper presents more direct evidence on the question of optimality for clients by examining deal outcomes. Assuming that controlling shareholders would generally prefer to pay less rather than more when freezing out the minority, the evidence presented here suggests that firms with more M&A experience were more effective in achieving this goal.

7. Conclusion

Recent changes in the judicial protection afforded minority shareholders under Delaware corporate law have attracted considerable practitioner and academic commentary over the past three years. This paper presents the first systematic empirical evidence on the influence of these doctrinal movements on freeze-out form and outcomes. On outcomes, I find that controlling shareholders are able to pay less in tender offer freeze-outs than in merger freeze-outs. This difference is statistically and economically meaningful, and is consistent with New York City practitioner views that controlling shareholders have more bargaining power against special

committees in tender offer freeze-outs than in merger freeze-outs. I examine the doctrinal and policy implications of these findings in a companion paper. (Subramanian 2005)

On transactional form, I present some evidence that larger controllers are more likely to proceed via tender offer when their outside counsel has substantial M&A experience. This evidence is consistent with the view that new transaction structuring practices disseminate slowly among corporate law firms. In addition, this evidence suggests that this slow dissemination can sometimes have negative economic consequences for clients, who leave legal issues such as choice of transactional form to their legal advisors.

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Figure 1: Freeze-out Roadmap (number of post-Siliconix transactions)

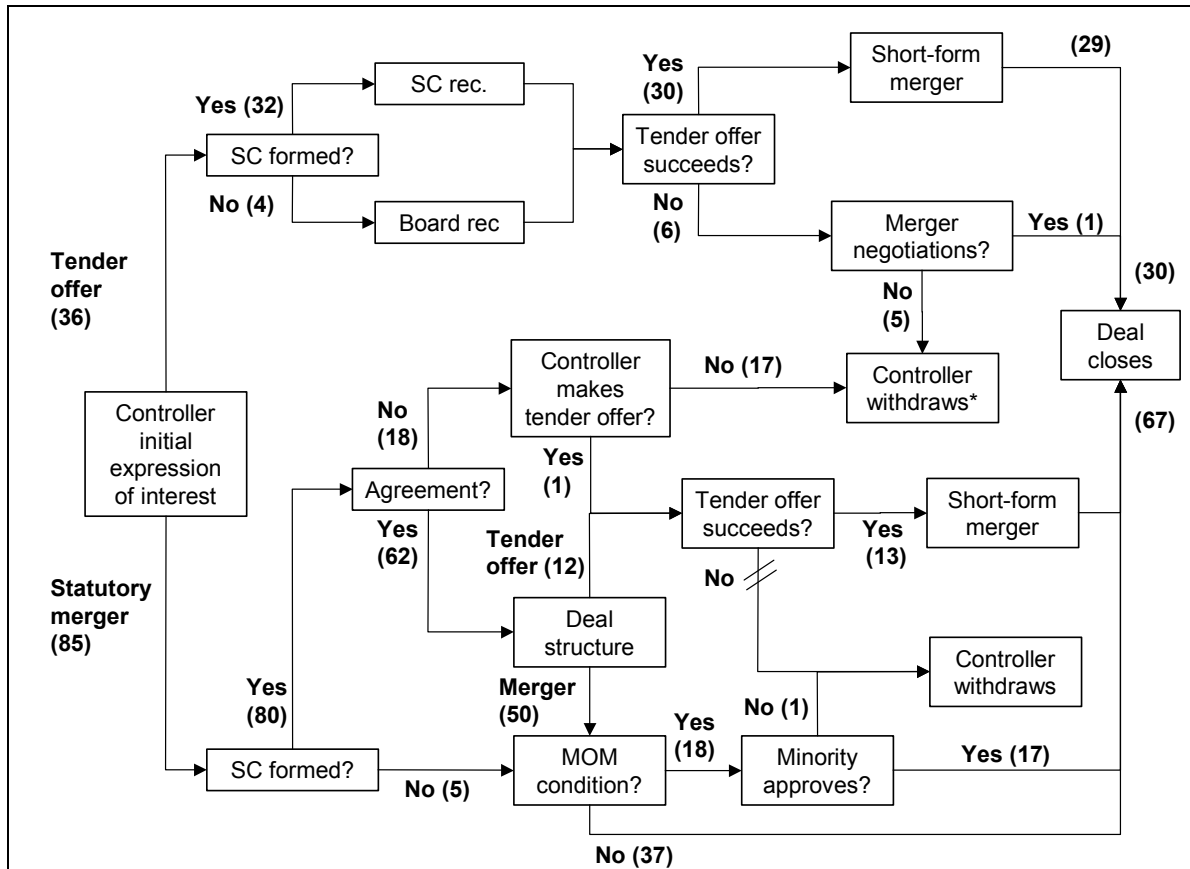


Table 1: Freeze-outs by Transactional Form and Target State of Incorporation

This table reports summary statistics on all freeze-out transactions announced between June 19, 2001, when the Delaware Chancery Court issued its opinion in *Siliconix*, and April 30, 2005 (n=121). Two reverse stock splits (Moyco Technologies and Semele Group Inc.) are categorized as statutory mergers for reasons described in the text. Two freeze-outs (Kontron Mobile and Ticketmaster) are included in the overall statistics but are not categorized as either tender offers or mergers, for reasons described in the text.

Target State of Incorporation	Tender Offer Freeze-outs		Merger Freeze-outs		Total Freeze-outs	
	Number	% of total	Number	% of total	Number	% of total
Delaware	25	71.4%	45	53.6%	71	58.7%
Arizona			1	1.2%	1	0.8%
Arkansas	1	2.9%			1	0.8%
California	2	5.7%	5	6.0%	7	5.8%
Colorado			1	1.2%	1	0.8%
Federal			1	1.2%	1	0.8%
Florida			4	4.8%	4	3.3%
Georgia			1	1.2%	1	0.8%
Illinois			2	2.4%	2	1.7%
Indiana	1	2.9%	1	1.2%	2	1.7%
Maryland			2	2.4%	2	1.7%
Massachusetts			1	1.2%	1	0.8%
Michigan			2	2.4%	2	1.7%
Minnesota					1	0.8%
Nevada			1	1.2%	1	0.8%
New Jersey			2	2.4%	2	1.7%
New York			2	2.4%	2	1.7%
North Carolina	2	5.7%	1	1.2%	3	2.5%
North Dakota	1	2.9%			1	0.8%
Ohio			1	1.2%	1	0.8%
Oregon	1	2.9%	1	1.2%	2	1.7%
Pennsylvania			1	1.2%	1	0.8%
Tennessee	1	2.9%	1	1.2%	2	1.7%
Texas			2	2.4%	2	1.7%
Utah			1	1.2%	1	0.8%
Virginia			1	1.2%	1	0.8%
Washington	1	2.9%	2	2.4%	3	2.5%
Wisconsin			2	2.4%	2	1.7%
Total	35	100%	84	100%	121	100%

Table 2: Summary Statistics by Transaction Form

This table reports summary statistics on all freeze-out transactions announced between June 19, 2001, when the Delaware Chancery Court issued its opinion in *Siliconix*, and April 30, 2005 (n=121). Two reverse stock splits (Moyco Technologies and Semele Group Inc.) are categorized as statutory mergers for reasons described in the text. Two freeze-outs (Kontron Mobile and Ticketmaster) are included in the overall statistics but are not categorized as either tender offers or mergers, for reasons described in the text. One freeze-out (SAZTEC International) is excluded from the premium calculations for reasons described in the text; the differences reported in this table become statistically stronger when SAZTEC is included. * = statistically significant difference between means at 90% confidence; ** = statistically significant at 95% confidence; *** = statistically significant at 99% confidence.

Panel A: All Targets

Mean (median)	All Transactions (n=121)	Tender Offers (n=35)	Statutory Mergers (n=84)
Target characteristics			
Delaware incorporation	58.7%	71.4%*	53.6%*
Controlling shareholder			
Controller pre-announcement stake	65.0% (65.8%)	71.2%*** (72.8%)	62.4%*** (63.1%)
Founder or family group	42.1%	31.4%*	47.6%*
Experienced outside counsel?	29.8%	48.5%***	21.5%***
Deal characteristics			
Transaction value (\$MM)	\$327.8 (\$17.0)	\$493.7 (\$25.5)	\$254.4 (\$14.8)
Stock consideration	20.7%	25.7%	17.9%
Offer conditions			
Non-waivable majority-of-the-minority or 90% tender condition	56.4%	81.8%***	43.3%***
Back-end guarantee at deal price	97.0%	97.0%	N/A
Outcomes			
Tendered into front-end tender offer (%)	74.5% (78.6%)	74.5% (78.6%)	N/A
Success rate	80.2	82.9%	78.8%
Days between initiation and close	173.6 (159.0)	119.2*** (103.0)	195.6*** (182.0)
Premiums			
First offer over average price:			
30 days prior	27.0% (16.6%)	18.1%** (11.2%)	31.2%** (24.7%)
60 days prior	25.7% (17.5%)	16.5%** (10.7%)	30.1%** (24.4%)
Increase over average price:			
30 days prior	19.8% (13.5%)	9.5%*** (7.1%)	24.6%*** (14.9%)
60 days prior	19.2% (13.6%)	9.3%*** (6.9%)	24.7%*** (14.9%)
Final deal price over average price (successful deals only):			
30 days prior	44.8% (32.1%)	29.2%*** (26.4%)	52.1%*** (35.3%)
60 days prior	44.0% (34.4%)	27.1%*** (23.0%)	51.9%*** (42.7%)

Table 2: Summary Statistics by Transaction Form (cont)

Panel B: Delaware Targets Only

Mean (median)	All Transactions (n=71)	Tender Offers (n=25)	Statutory Mergers (n=45)
Controlling shareholder			
Controller pre-announcement stake	64.0% (66.0%)	71.5% (74.0%)	62.9% (63.0%)
Founder or family group	36.6%	20.0%***	46.7%***
Experienced outside counsel?	36.2%	62.5%***	20.5%***
Deal characteristics			
Transaction value (\$MM)	\$415.3 (\$21.5)	\$541.8 (\$70.9)	\$335.5 (\$15.3)
Stock consideration	28.2%	32.0%	24.4%
Offer conditions			
Non-waivable majority-of-the-minority or 90% tender condition	61.7%	83.3%***	47.2%***
Back-end guarantee at deal price	100.0%	100.0%	N/A
Outcomes			
Tendered into front-end tender offer (%)	70.6% (77.0%)	70.6% (77.0%)	N/A
Success rate	81.2%	83.3%	79.5%
Days between initiation and close	149.9 (134.0)	103.5*** (81.0)	173.5*** (174.5)
Premiums			
First offer over average price:			
30 days prior	25.1% (16.0%)	14.8%** (9.4%)	31.5%** (29.9%)
60 days prior	22.8% (14.8%)	12.5%** (8.9%)	29.3%** (27.0%)
Increase over average price:			
30 days prior	21.5% (13.8%)	10.8%** (9.0%)	28.4%** (15.3%)
60 days prior	21.1% (13.8%)	10.4%** (8.7%)	28.1%** (15.7%)
Final deal price over average price (successful deals only):			
30 days prior	44.9% (32.1%)	26.6%** (26.5%)	56.9%** (48.6%)
60 days prior	42.4% (33.8%)	23.6%** (21.6%)	54.8%** (45.4%)

Table 3: Outcomes – Full Model

This table reports regression estimates on the association between the outcome for minority shareholders and target, controller, and deal characteristics. * = statistically significant at 90% confidence; ** = statistically significant at 95% confidence; *** = statistically significant at 99% confidence. All models are run as ordinary least squares (OLS) regressions and include a constant term (not reported). One freeze-out (SAZTEC International) is excluded as an outlier observation; the statistically significant differences reported in this table become stronger when SAZTEC is included. Standard errors are White (1980) robust.

Panel A: All Targets

Baseline share price →	Controller's First Offer		Final Deal Price (Successful Deals Only)	
	#1: 30 day average prior to deal announcement	#2: 60 day average prior to deal announcement	#3: 30 day average prior to deal announcement	#4: 60 day average prior to deal announcement
Deal Characteristics				
Tender offer?	-11.14 (12.45)	-15.43 (11.97)	-28.09 (15.94)*	-32.06 (15.57)**
% minority approval required	-0.05 (0.22)	0.13 (0.21)	0.16 (0.27)	0.22 (0.26)
Log(deal value)	-2.15 (2.71)	-1.59 (2.66)	-5.23 (3.35)	-4.50 (3.38)
Stock deal?	-10.92 (7.91)	-10.25 (7.50)	1.03 (14.94)	1.02 (14.03)
Target Shareholder Profile				
Percent held by controller	-0.26 (0.41)	-0.14 (0.40)	-0.07 (0.50)	0.02 (0.50)
Percent held by institutions	-5.72 (16.61)	-12.16 (16.20)	-3.31 (20.44)	-8.57 (20.00)
Number of large-block holders	-1.61 (3.54)	-12.16 (16.20)	3.18 (4.84)	4.45 (4.88)
Target & Controller Characteristics				
Delaware target?	0.65 (8.16)	-1.55 (7.53)	8.63 (10.74)	4.66 (10.07)
Family group controller?	-10.33 (11.09)	-9.86 (10.72)	-2.98 (13.19)	-4.66 (13.20)
Number of observations	109	109	90	90
R-sq	8.7%	10.5%	14.4%	15.7%

Table 3: Outcomes – Full Model (cont)

Panel B: Delaware Targets Only

Baseline share price →	Controller's First Offer		Final Deal Price (Successful Deals Only)	
	#1: 30 day average prior to deal announcement	#2: 60 day average prior to deal announcement	#3: 30 day average prior to deal announcement	#4: 60 day average prior to deal announcement
Deal Characteristics				
Tender offer?	5.56 (13.21)	-4.44 (12.71)	-15.06 (21.25)	-26.77 (20.08)
% minority approval required	-0.31 (0.26)	-0.13 (0.24)	-0.10 (0.38)	0.11 (0.34)
Log(deal value)	-4.67 (2.84)	-3.93 (2.81)	-8.93 (4.25)**	-7.86 (4.15)*
Stock deal?	-10.92 (8.50)	-9.89 (8.16)	4.79 (17.81)	5.99 (16.53)
Target Shareholder Profile				
Percent held by controller	-0.95 (0.52)*	-0.65 (0.53)	-0.44 (0.79)	-0.10 (0.76)
Percent held by institutions	27.11 (14.15)*	14.39 (14.96)	17.66 (18.92)	5.83 (18.75)
Number of large-block holders	-8.00 (3.87)**	-5.15 (3.79)	1.03 (6.63)	4.14 (6.62)
Target & Controller Characteristics				
Family group controller?	-5.63 (14.22)	-8.17 (13.05)	-3.32 (20.90)	-7.68 (19.51)
Number of observations	66	66	54	54
R-sq	18.7%	16.2%	22.4%	23.3%

Table 4: Outcomes – Alternative Specifications

This table reports regression estimates on the association between the outcome for minority shareholders and target, controller, and deal characteristics. * = statistically significant at 90% confidence; ** = statistically significant at 95% confidence; *** = statistically significant at 99% confidence. All models are run as ordinary least squares (OLS) regressions and include a constant term (not reported). One freeze-out (SAZTEC International) is excluded as an outlier observation; the statistically significant differences reported in this table become stronger when SAZTEC is included. Standard errors are White (1980) robust. Dependent variable in all models is final deal price over average share price 60 days prior to deal announcement.

Panel A: All Targets

	#1: Baseline model	#2: Deals > \$10 million	#3: Deals weighted by log(deal size)	#4: All-cash deals
Deal Characteristics				
Tender offer?	-35.90 (13.91)**	-41.09 (14.31)***	-31.34 (10.76)***	-35.08 (14.59)**
% minority approval required	0.23 (0.24)	0.50 (0.23)**	0.21 (0.18)	0.29 (0.24)
Log(deal value)	-4.36 (2.73)	-6.62 (3.79)*	-7.32 (2.47)***	-5.03 (3.04)
Stock deal?	0.15 (13.65)	6.38 (13.29)	3.89 (9.83)	
Target & Controller Characteristics				
Delaware target?	3.94 (9.94)	-3.90 (10.48)	-0.21 (9.20)	3.57 (10.30)
Family group controller?	-5.66 (12.38)	-14.68 (11.20)	-11.24 (8.98)	-5.20 (12.57)
Number of observations	90	62	85	72
R-sq	14.0%	22.9%	24.9%	12.2%

Panel B: Delaware Targets Only

	#1: Baseline model	#1: Deals > \$10 million	#2: Deals weighted by log(deal size)	#3: All-cash deals
Deal Characteristics				
Tender offer?	-33.14 (13.13)**	-16.50 (11.60)	-20.04 (9.46)**	-30.37 (14.05)**
% minority approval required	0.10 (0.23)	-0.06 (0.18)	-0.05 (0.15)	0.18 (0.23)
Log(deal value)	-6.16 (3.73)	-6.12 (4.14)	-7.76 (2.61)***	-6.78 (4.35)
Stock deal?	4.81 (15.51)	4.03 (13.75)	2.32 (9.93)	
Target & Controller Characteristics				
Family group controller?	-7.72 (18.64)	-22.08 (14.49)	-15.15 (11.69)	-5.66 (19.77)
Number of observations	54	39	52	39
R-sq	20.6%	18.5%	29.2%	16.4%

Table 5: Transaction Form

This table reports regression estimates on the association between the controller’s choice of transactional form (tender offer or statutory merger) and target, controller, and deal characteristics. The dependent variable in all models is TENDER, set to 1 if the freeze-out is structured as a tender offer and 0 otherwise. Two freeze-outs (Kontron Mobile and Ticketmaster) are excluded from the analysis for reasons described in the text. * = statistically significant at 90% confidence; ** = statistically significant at 95% confidence; *** = statistically significant at 99% confidence. All models are run as probit regressions and include a constant term (not reported). Standard errors are adjusted for clustering by controller’s outside counsel.

Panel A: All Targets

Model # →	#1	#2	#3	#4
Deal Characteristics				
Log(transaction value)	0.09 (0.09)	0.09 (0.09)	0.07 (0.08)	0.07 (0.08)
Stock consideration?	-0.28 (0.46)	-0.24 (0.44)	-0.14 (0.42)	-0.13 (0.42)
Target Shareholder Profile				
Percent held by controller	0.04 (0.01)***	0.04 (0.01)***	0.04 (0.01)***	0.03 (0.01)***
Percent held by institutions	0.02 (0.63)			
Number of large-block holders	-0.09 (0.15)			
Target & Controller Characteristics				
Delaware target?	0.25 (0.31)	0.23 (0.30)	0.21 (0.31)	0.19 (0.31)
Controller is family group?	0.25 (0.37)	0.22 (0.35)	0.26 (0.38)	0.23 (0.38)
Controller’s Outside Counsel:				
Log(deal experience)	0.13 (0.09)	0.12 (0.09)		
Experienced?			0.71 (0.34)**	
Experienced? * Pre-deal stake				0.01 (0.00)**
Log(days since <i>Siliconix</i>)	-0.22 (0.16)	-0.23 (0.15)	-0.24 (0.15)	-0.23 (0.15)
Number of observations	112	112	112	112
Pseudo R-sq	15.9%	15.6%	17.3%	17.6%

Table 5: Transaction Form (cont)

Panel B: Delaware Targets Only

Model # →	#1	#2	#3	#4
Deal Characteristics				
Log(transaction value)	0.11 (0.13)	0.13 (0.11)	0.15 (0.11)	0.15 (0.11)
Stock consideration?	-0.48 (0.48)	-0.42 (0.46)	-0.29 (0.46)	-0.29 (0.46)
Target Shareholder Profile				
Percent held by controller	0.03 (0.02)	0.03 (0.02)	0.03 (0.02)**	0.03 (0.02)*
Percent held by institutions	0.24 (0.76)			
Number of large-block holders	-0.14 (0.20)			
Target & Controller Characteristics				
Controller is family group?	-0.06 (0.53)	-0.08 (0.52)	-0.01 (0.52)	-0.07 (0.51)
Controller's Outside Counsel:				
Log(deal experience)	0.23 (0.10)**	0.22 (0.11)**		
Experienced?			0.81 (0.41)*	
Experienced? * Pre-deal stake				0.01 (.01)**
Log(days since <i>Siliconix</i>)	-0.29 (0.20)	-0.32 (0.19)*	-0.31 (0.18)*	-0.29 (0.18)
Number of observations	68	68	68	68
Pseudo R-sq	16.4%	16.2%	18.5%	18.8%