Non-Corporate Freezeouts: Theory and Evidence

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Abstract

Corporate freezeouts are subject to enhanced judicial scrutiny in the form of entire fairness review. In contrast, controlling shareholders of non-incorporated business entities can waive the duty of loyalty, which renders entire fairness review unapplicable. Prior scholars have not studied non-corporate freezeouts empirically, even though they constitute approximately one-fifth of total freezeouts by number and one-third by deal volume since 2000. This paper is the first to examine whether the doctrinal difference between corporate and non-corporate freezeouts is associated with different economic outcomes. The results show that minority shareholders receive substantially inferior gains in non-corporate freezeouts than in corporate freezeouts, which suggests that controlling shareholders in fact exploit the heterogeneity in the law. Based on our findings, we argue that although fiduciary duty waivers should not be prohibited, courts should police these transactions not only by enforcing the non-waivable duty of good faith and fair dealing, but also by retaining the power to perform some degree of substantive review.

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1. Introduction

Controlling shareholders of public corporations have long owed fiduciary duties to the minority shareholders. These duties include the duty of care, which requires directors, officers, and controlling shareholders ("corporate fiduciaries") to act in good faith and with the care that an ordinarily prudent person would exercise in similar circumstances,[1] and the duty of loyalty, which requires corporate fiduciaries to put the interests of the corporation above their own interests – especially in the context of transactions involving conflicts of interest.[2]

An important way in which courts police these duties, and particularly the duty of loyalty, is by subjecting conflicted transactions to "entire fairness review," a stringent standard of judicial review that enables courts to revise the form and substance of the transaction if the court suspects that the minority shareholders were unfairly treated. The prototypical scenario involving a conflict of interest is a corporate freezeout (that is, transactions in which the controlling shareholder of a corporation buys out the minority shares) because in those deals the controlling shareholder stands on the two sides of the negotiations – as a buyer and as a controller of the seller. As a result, for many years, courts have consistently applied entire fairness review to these transactions.[3] The only way in which a controlling shareholder can escape entire fairness review is by conditioning the transaction on approval by a committee of independent directors and the majority-of-the-minority shareholders, which procedural steps are thought to emulate a transaction between unrelated parties.[4] Moreover, courts have emphasized that the duty of loyalty cannot be waived in the corporate context,[5] which reinforces the applicability of enhanced judicial review to corporate freezeouts.

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[1] See, e.g., American Law Institute Principles of Corporate Governance (§ 4.01(a)). RMBCA §8.30 and Delaware case law give a similar articulation.
[2] See, e.g., Guth v. Loft, Inc., 23 Del. Ch. 255, 270 (1939).
[3] Weinberger v. UOP, 457 A.2d 701, 711 (Del. 1983).
[4] In re MFW Shareholders Litigation, 67 A.3d 496, 500, 528 (Del. Ch. May 29, 2013); Kahn v. M&F Worldwide Corp., 88 A.3d 635, 643 (Del. Supr., 2014).
[5] See, e.g., Schock v. Nash, 732 A.2d 217, 225 n.21 (Del. 1999); Dieckman v. Regency GP LP, 2016 WL 1223348, at *8 (Del. Ch. Mar. 29, 2016); Totta v. CCSB Fin. Corp., WL 1751741, at *14-15 (Del. Ch. May

Despite how firmly established the doctrine described above is, however, there is an important discrepancy in the law: even though freezeouts of non-incorporated business entities give rise to the same conflicts of interest that corporate freezeouts do, the duty of loyalty can be waived in the context of those entities – which precludes the application of entire fairness review.[6] Prior scholars have not studied non-corporate freezeouts empirically, even though they constitute approximately one-fifth of total freezeouts by number and one-third by deal volume since 2000. The implication of these points is that a significant portion of freezeouts today are executed with a business entity (non-corporate form) and a doctrinal regime (no entire fairness review) that are different from the entirety of what the business organization literature has studied to date.

This paper fills this gap by examining whether the relatively lax regime that applies to non-corporate freezeouts is associated with inferior economic outcomes for the minority shareholders. The results indicate that in fact this the case. In previous work we have found that disconnects in Delaware doctrine influence freezeout outcomes (e.g., Subramanian 2007; Restrepo 2013) and one of us has further argued that this disconnect represented a social welfare loss (Subramanian 2006). Partly in reliance on this work, the Delaware courts have closed the doctrinal gap in a series of cases culminating with *MFW*[7] in 2013. Because equityholders in non-corporate entities come in "eyes wide open" with respect to the rules of the game, the argument for an efficiency loss is less pronounced, though it still exists. To reconcile these competing policy points, we recommend the continued enforcement of fiduciary duty waivers in non-corporate entities, but a "light touch" monitoring of non-corporate freezeouts through the non-waivable duty of good faith and fair dealing, and the possibility of some degree of substantive review.

31, 2022). See also Miller v. HCP & Co., 2018 WL 656378, at *2 (Del. Ch. Feb. 1, 2018); Delman v. GigAcquisitions3, LLC, 288 A.3d 692, 715 (Del. Ch. 2023). However, in a recent decision examining a motion to dismiss, the court suggested that an agreement not to sue for breach of the duty of loyalty could be enforceable, but only if the agreement (1) is "narrowly tailored" to a specific transaction, and (2) passes a reasonableness test under a list of non-exclusive factors. See New Enter. Associates 14, L.P. v. Rich, 295 A.3d 520, 540 (Del. Ch. 2023).

[6] See, e.g., Dieckman v. Regency GP LP, 155 A.3d 358, 366 (Del. 2017); Miller v. HCP & Co., WL 656378, at *8 (Del. Ch. Feb. 1, 2018).

[7] In re MFW Shareholders Litigation, 67 A.3d 496, 500, 528 (Del. Ch. May 29, 2013); Kahn v. M&F Worldwide Corp., 88 A.3d 635, 643 (Del. Supr., 2014).

The remainder of this paper is organized as follows. Section 2 provides background on the law of freezeouts. Section 3 reviews the evidence on the relationship between the strength of the legal protections that apply to these transactions and the gains of the minority shareholders. Section 4 presents the methodology. Section 5 presents the analysis (the results and the implications), and Section 5 concludes.

2. Institutional background

Corporate freezeouts involve a significant conflict of interest: since the controlling shareholder stands on both sides of the transaction because he is the buyer and typically also dominates the seller's board, the deal could be used as a mechanism to obtain a disproportionate benefit for the controller at the expense of the minority shareholders (see, e.g., Sommer, 1974). Precisely for this reason, the courts of Delaware (where most public corporations are incorporated) have historically subjected freezeouts to "entire fairness," a demanding standard of judicial review in which the court examines whether the transaction complied with "fair dealing" and "fair price" – that is, a fair negotiation process and a fair substantive outcome.[8] This form of judicial review is an important way in which Delaware courts enforce the duty of loyalty, which requires corporate fiduciaries (directors, officers, and controlling shareholders) to act in the best interest of the corporation rather than their own interest,[9] and which, in the corporate context, cannot be waived. For instance, in *Totta v. CCSB Fin. Corp.*, the Delaware Chancery Court explained the unwaivable nature of the duty of loyalty as follows: "Fiduciary duties … are a fundamental aspect of Delaware law. The constitutive agreements that govern an entity can only eliminate or modify fiduciary duties and the attendant judicial standards of review to the extent expressly permitted by an affirmative act of the Delaware General Assembly. The General Assembly has granted broad authorization to modify or eliminate fiduciary duties and attendant standards of review in some types of entities … Although the General Assembly has the power to wholesale displace the foundational role of equity in corporate law, it has not done so").[10]

[8] Weinberger v. UOP, 457 A.2d 701, 711 (Del. 1983).
[9] See, e.g., Guth v. Loft, Inc., 23 Del. Ch. 255, 270 (1939).
[10] Totta v. CCSB Fin. Corp., WL 1751741, at *14-15 (Del. Ch. May 31, 2022). See also Miller v. HCP & Co., 2018 WL 656378, at *2 (Del. Ch. Feb. 1, 2018) (examining an LLC agreement that waived all fiduciary

The only way in which a controlling shareholder can avoid entire fairness review in a freezeout is by conditioning the transaction on two procedural protections that seek to emulate a transaction between unrelated parties: approval by a special committee of independent directors with power to veto the transaction (the "SC" condition), and approval by an informed and uncoerced majority-of-the-minority shareholders (the "MOM" condition). When these two procedural protections are implemented, the standard of judicial review shifts from entire fairness to the business judgment rule,[11] a very deferential standard of review under which courts will not question the terms of the transaction unless those terms were so extremely poor that no rational person acting in good faith would have approved them – a scenario that would be very hard to prove for a plaintiff.[12] If a freezeout is conditioned only on one of the two procedural protections, the transaction remains subject to entire fairness, but the burden of proof shifts to the plaintiff to show that the transaction was not fair.[13]

Things, however, are very different in freezeouts involving a non-incorporated business entity (e.g., limited liability companies (LLCs) or limited partnerships (LPs)). In these cases, the investors in the entity can waive the duty of loyalty, and therefore a negotiation of a freezeout takes place against a background of significantly much more deference for the controlling shareholder. In *Dieckman v. Regency GP LP*., for example, the Delaware Supreme Court held that "the Delaware Revised Uniform Limited Partnership Act ("DRULPA") gives 'maximum effect to the principle of freedom of contract' [6 Del. C.

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duties and arguing that "if the parties had chosen to employ the corporate form here, with its common-law fiduciary duties, this matter would be subject to entire fairness review"); Dieckman v. Regency GP LP, 2016 WL 1223348, at *8 (Del. Ch. Mar. 29, 2016) ("[I]n stark contrast to the corporate context, in which fiduciary duties cannot be waived, a limited partnership may eliminate all fiduciary duties, including the duty of disclosure"); Delman v. GigAcquisitions3, LLC, 288 A.3d 692, 715 (Del. Ch. 2023) ("Delaware corporate law "does not allow for a waiver of the directors' duty of loyalty.""); Schock v. Nash, 732 A.2d 217, 225 n.21 (Del. 1999) (same). However, in a recent decision examining a motion to dismiss, the court suggested that an agreement not to sue for breach of the duty of loyalty could be enforceable, but only if the agreement (1) is "narrowly tailored" to a specific transaction, and (2) passes a reasonableness test under a list of non-exclusive factors. See New Enter. Associates 14, L.P. v. Rich, 295 A.3d 520, 540 (Del. Ch. 2023).

[11] In re MFW Shareholders Litigation, 67 A.3d 496, 500 (Del. Ch. May 29, 2013) ; Kahn v. M&F Worldwide Corp., 88 A.3d 635 (Del. 2014);); In re CNX Gas Corp. Shareholder Litigation, 4 A.3d 397, 407 (Del. Ch. 2010).

[12] On the definition of the business judgment rule, see, e.g., Aronson v. Lewis, 473 A.2d 805 (Del. 1984).

[13] Kahn v. Lynch Commc. Sys., Inc., 638 A.2d 1110, 1117 (Del. 1994).

§17 – 1101(c)]. One freedom often exercised in the [context of limited partnerships] is eliminating any fiduciary duties a partner owes to others in the partnership structure. The act allows drafters of Delaware limited partnerships to ... eliminate fiduciary-based principles of governance, and displace them with contractual terms."[14] Horton (2013) finds that 90% of Delaware limited partnerships limit fiduciary duties. The empirical prediction is that this difference in legal regimes between corporate and non-corporate entities exposes the minority shareholders to less favorable outcomes in non-corporate freezeouts. This paper empirically examines this prediction.

3. Prior empirical studies

Prior studies suggest that there is a positive correlation between the strength of the legal protections enjoyed by minority shareholders and the economic terms of a freezeout. Subramanian (2007) examines a sample of freezeouts between 2001 and 2005, and finds that the stock market reaction to the announcement of the transaction (that is, the cumulative abnormal returns or "CARs" around the transaction) were lower in tender offer freezeouts than in merger freezeouts during a period in which the Delaware Chancery Court's decision in *Siliconix* exempted tender offers from entire fairness review.[15] Restrepo

[14] Dieckman v. Regency GP LP, 155 A.3d 358, 366 (Del. 2017). See also, e.g., Miller v. HCP & Co., WL 656378, at *8 (Del. Ch. Feb. 1, 2018) (holding that "The Delaware Limited Liability Company Act permits parties to an LLC agreement to eliminate fiduciary duties that members or managers would otherwise owe to one another. That grant of authority reflects the LLC Act's policy "of giv[ing] the maximum effect to the principle of freedom of contract and to the enforceability of limited liability company agreements.").

[15] Tender offers and mergers freezeouts achieve essentially the same outcome – eliminating the minority float from the corporation. However, while mergers are a contract negotiated between the target's board and the controlling shareholder, a tender offer involves a direct offer that the controlling shareholder makes to the minority shareholders. The Delaware Chancery Court reasoned that the minority shareholders' ability to just reject the offer was a sufficient protection – thus rendering entire fairness review unnecessary. See In re Siliconix Inc. Shareholders Litigation, Civ. A. No. 18700, 2001 WL 716787 at *6, *7 (Del. Ch. June 19, 2001)). However, the court subsequently reversed its position in *CNX Gas*. See In re CNX Gas Corp. Shareholder Litigation, 4 A.3d 397, 407 (Del. Ch. 2010). This move was partially explained by the fact that the decision not to tender leaves a minority shareholder in a more thinly traded stock that is subject to a short-form merger at a later time, which means that the specter of coercion is not absent in the context of a tender offer. See also In re Pure Resources, Inc., Shareholders Litigation, 808 A.2d 421, 441 (Del.Ch., 2002); In re Cox Communications, Inc. Shareholders Litigation, 879 A.2d 604, 618–19 (Del. Ch. 2005). In addition, the court noted that the empirical evidence presented in Subramanian (2007) was consistent with that argument. See In re Cox Communications, Inc. Shareholders Litigation, 879 A.2d 604, 618–19 (Del. Ch. 2005). For theoretical academic commentary supporting the notion that minority shareholders also face a risk of coercion in tender offers, see Bebchuk (1982, 1039-40); Bebchuk (1985a); Bebchuk (1985b, 1695-96); *Cf.* Bebchuk (1987, 917-31); Bebchuk and Hart (2001); Prentice and Langmore (1990, 440-42); Lowestein (1983, 307-09).

(2013) extended this study by comparing tender offers and mergers before and after *Siliconix* and found that CARs in tender offers in fact declined in relation to CARs in mergers after the decision.[16] In addition, Restrepo and Subramanian (2015) examined the effect of a subsequent decision of the Delaware Chancery Court (*Cox Communications*)[17] in which the court indicated in dicta that it would likely reverse *Siliconix*, and they found that CARs in tender offers increased in relation to mergers after the decision.

Restrepo (2021) focuses on the relationship between the strength of judicial review and the use of procedural protections, and finds that the combination of SC and MOM conditions provides a level of protection that is similar to entire fairness review. The reason is that when the Delaware Chancery Court held in *MFW*[18] that a freezeout would no longer be subject to entire fairness if the controlling shareholder conditioned the transaction on SC and MOM approval (which implies a relaxation of the standard of judicial review), the use of the procedural protections increased[19] but the gains of the target shareholders remained approximately the same.

One important gap in the literature, however, is that all these studies focus on corporations. We find this omission surprising and important, because non-corporate freezeouts represent approximately one-fifth of all freezeouts by number and one-third of all freezeouts by deal value. This paper is the first to examine the gains of target shareholders

[16] Bates, Lemmon, and Linck (2006, 681-708) also studied CARs in freezeouts in a period that partially overlapped with Subramanian's (2007) and Restrepo's (2013) samples, and the authors concluded that *Siliconix* was not associated with lower CARs. However, there are various methodological aspects that might explain that difference. First, Bates, Lemmon, and Linck include Delaware and non-Delaware targets in their sample even though *Siliconix* was not necessarily adopted outside of Delaware. Second, the authors classified tender offers that were executed pursuant to a merger agreement as pure tender offers – even though the Delaware Chancery Court has held that the presence of a merger agreement triggers entire fairness review. See Hartley v. Peapod, Inc., No. Civ.A. 19025-NC, 2002 WL 31957458, at *1 (Del. Ch. Feb. 27, 2002). And third, the post-*Siliconix* sample in Bates, Lemmon, and Linck (2006) (i.e., 2001-2003) is shorter than the post-*Siliconix* sample examined in Subramanian (2007) and Restrepo (2013) (i.e., 2001-2005). There are other papers that also examine the gains of the target shareholders in freezeouts, but those papers are examine samples that predate *Siliconix* and do not compare tender offers and mergers. See Dodd and Ruback (1977); DeAngelo, DeAngelo, and Rice (1984); and Holderness and Sheehan (1988).

[17] In re Cox Communications, Inc. Shareholders Litigation, 879 A.2d 604, 618–19 (Del. Ch. 2005).

[18] In re MFW Shareholders Litigation, 67 A.3d 496 (Del. Ch. May 29, 2013).

[19] To be more precise, MOM conditions increased significantly. SCs were already very common by the time *MFW* was decided (see Subramanian, 2007; Restrepo, 2013; Restrepo and Subramanian, 2015).

in freezeouts of non-incorporated business entities, and how those gains compare with the gains that minority shareholders receive in the corporate context.

4. Methodology

We employ a regression framework to compare the gains of minority shareholders in corporate and non-corporate freezeouts during the 2000-2023 period. The sample includes the universe of transactions involving Delaware-incorporated targets and a controlling shareholder buyer during this period. We classify a merger as a freezeout if the buyer had at least 30% of the shares in the target before the announcement of the transaction because even though a 50% holding establishes clear control, the Delaware courts have held that 30% can be enough to trigger control.[20]

We measure the gains of the target shareholders as the cumulative abnormal returns (CARs) of the target company around the announcement of the freezeout, and we define the CARs as the difference between the daily returns for the stock of the target relative to the returns of the Center for Research in Securities Pricing (CRSP) index over a window of one day around the announcement of the transaction. We use the value-weighted CRSP index to adjust the raw returns, but the results do not materially change if we use the equal-weighted index.

The main independent variable of interest is *Non-Corporate*, an indicator variable that takes the value of one for freezeouts of non-corporate targets and zero for corporate freezeouts. The remaining independent variables are controls for characteristics of the transaction and the target company. These variables include the deal value; the target's profitability (return on assets or ROA), sales growth over the prior fiscal year, and market-to-book value (the ratio of the market value of the company to the book value of the equity);

[20] See, for example, In re Cysive Inc. Shareholders Litigation, 836 A.2d 531 (Del. Ch. 2003) (finding a 35% shareholder to be a controller). In some cases, the Delaware Chancery Court has gone even further, concluding that a shareholding below 30% can trigger control. See Calesa Associates, L.P. v. American Capital, Ltd., 2016 WL 770251, at *10 (Del.Ch., 2016) (finding that a 25% shareholder can be a controlling shareholder); In re Zhongpin Inc. Stockholders Litigation, 2014 WL 6735457, at *9 (Del.Ch., 2014) (finding that a 17.3% shareholder can be a controlling shareholder, although that stake is "much smaller than a typical controller's"). However, control in those cases is more controversial.

the nature of the buyer (financial or non-financial buyer); the outcome of the transaction (completed or withdrawn); and capital market liquidity (a macroeconomic variable that works as a proxy for businesses' cost of financing) (Harford, 2005).[21] To mitigate the influence of outliers, we winsoize all the continuous variables.[22]

To mitigate the concern that differences in the gains of the target shareholders may be attributable to financial characteristics rather than the legal regime to which they are exposed, we not only control for all the variables mentioned above, but also run the regressions using a matched sample. To build this sample, we matched the non-corporate targets with the corporate targets on the financial characteristics of the companies. In the baseline estimations, we did not impose any caliper or common support condition, but the results are similar if we use a caliper of 0.25 times the standard deviation of the propensity score, which is a standard caliper (Rosenbaum and Rubin, 1985), or if we require common support (that is, if we drop the corporate freezeouts whose propensity score was higher than the maximum or lower than the minimum propensity score of the non-corporate freezeouts).

The data for this project come from various sources. The list of transactions and the financial characteristics of the target companies come from SDC; stock market prices are from the Center for Research in Securities Prices (CRSP) and, when not available, from Datastream; the companies' financials are from SDC and, when not available, from Compustat; the quarterly prime rate and the federal funds rate are from the Federal Reserve Bank of St. Louis; and information about SC and MOM conditions come from SEC filings

[21] We define capital market liquidity as the spread of the prime rate over the federal funds rate. The prime rate is a reference rate at which banks price short-term business loans. The federal funds rate is the rate at which commercial banks borrow and lend their excess reserves among themselves. Both variables are published by the Federal Reserve. Harford (2005) computes capital market liquidity as the spread between the commercial and industrial loan rate (that is, the average interest rate on commercial and industrial loans) and the federal funds rate. However, we use the prime rate because the commercial and industrial loan rate was not available for the entire sample period.

[22] We winsorize at the 10% level because of the relatively small size of the sample. In addition, because the subset of non-corporate freezeouts is particularly small, we winsorize the dependent variable within each subsample of interest (that is, within the subsets of corporate and non-corporate freezeouts) instead of winsorizing it across the entire sample. However, the results are qualitatively similar if we winsorize across the full sample or if we winsorize at the 5% level.

by the target company and the controller (especially 8-K, 14D-9, 13-E, 13-D, and 14A filings). Only observations for which there were stock market prices available are included in the sample. Within this set of observations, in the few instances in which a covariate has missing data, we impute the data using the minimum sample values.[23]

5. Analysis

Table 1 shows descriptive statistics. The statistics show that minority shareholders in non-corporate freezeouts received significantly lower CARs than in corporate freezeouts: while in corporate freezeouts the average CARs were 19%, the CARs in non-corporate freezeouts were 10%. There are also other differences in the financial characteristics of the transactions (in terms of size of the deal and profitability). As mentioned earlier, we control for those differences in the regressions and also mitigate their potential effect by using a matched sample.

Table 1 also shows that even though controlling shareholders can waive the duty of loyalty in non-corporate freezeouts, they often condition the deal on approval by a special committee of independent directors (and, with less frequency, on approval by the majority-of-the-minority shareholders). Both corporate and non-corporate freezeouts were subject to SC approval in approximately 90% of the deals. In contrast, while 54% of the corporate freezeouts included an MOM condition, only 24% of the non-corporate transactions included the condition. This difference becomes especially pronounced after *MFW*, when MOM conditions increased significantly in corporate freezeouts (Restrepo, 2021). After *MFW*, the incidence of SC remained at approximately 90% across the entire sample. MOM conditions were included in 70% of the corporate freezeouts and only in 20% of the non-corporate transactions.[24]

[23] The results do not significantly change if we do not impute missing values or if we use mean or median imputation.

[24] Because the incidence of procedural protections is of particular interest, we do not impute missing values on those variables in Table 1. In the regressions, we assume that if we were not able to find information on procedural protections, there were none; however, the results are similar if we do not impute missing values.

Table 2 shows the regression results. Model 1 shows the results without any control. Model 2 includes controls for the financial characteristics of the target and the deal. Given the relatively small size of the sample, and especially the small set of non-corporate freezeouts, we begin with a parsimonious model in which we only control for the size of the deal (in the form of deal value), one proxy for the profitability of the target (ROA), and the relationship between the target's market value and the book value of its assets (the market-to-book ratio). In Model 3, we expand the regression model to include our macroeconomic proxy for general financing conditions faced by businesses (the spread of the prime rate over the federal funds rate). Model 4 includes all the financial characteristics of the deal and the parties: deal size, ROA, market-to-book ratio, sales growth, the control for financial buyers, the outcome of the deal (completed or withdrawn), and the spread over the prime rate. As shown, the *Non-Corporate* variable is negative and statistically significant at the 1% level in all the models, indicating that minority shareholders in non-corporate freezeouts receive lower CARs than in corporate freezeouts even after controlling for other observable characteristics.[25]

The controls included in Table 2 are motivated by various considerations. First, some studies find that the size of the deal may be negatively correlated with the premium paid in a merger (e.g., Schwert, 2000). Second, a buyer may pay more for targets that are more profitable or that have a stronger growth trajectory in their core business activities, and they may pay less for targets that are undervalued by the market.[26] These considerations motivate the controls for ROA, sales growth, and the market-to-book ratio, respectively. Third, financial buyers have different financial constraints and have shorter investment horizons, which may affect how much they pay for a target (e.g., Chiarella and Ostinelli, 2020). Fourth, the outcome of the deal (completed or withdrawn) is likely to be determined rather than determine the target returns; however, we control for the variable because it may capture unobserved differences between successful and unsuccessful deals. And fifth,

[25] We do not include the SC and MOM controls in the baseline regressions because the procedural protections are more likely to be determined by the buyer and, therefore, those variables may involve greater endogeneity. However, as shown below, we include those variables in the sensitivity analyses.

[26] Alternatively, controllers may pay more for targets that the market values most in relation to their book value.

capital market liquidity is a proxy for the ease with which companies can access financing, which can therefore affect the premium paid by a buyer (e.g., Harford, 2005).[27]

Table 3 shows various sensitivity analyses. All the models include all the controls (that is, the entire set of controls included in Model 4 of Table 2). Model 1 shows the regressions using the matched sample.[28] Model 2 includes only completed deals. Model 3 employs a pre-deal holding of 50% rather than 30% to define the level of ownership that renders control – and, therefore, a freezeout situation. As mentioned earlier, the Delaware courts have held that a 30% holding is enough to make someone a controlling shareholder, but control becomes less controversial (and therefore a freezeout situation becomes clearer) with a 50% holding.

Models 4 through 6 include controls for approval by a special committee of independent directors and the majority-of-the-minority shareholders. As discussed earlier, these approvals are designed to protect the minority shareholders, so they might exert upward pressure on the gains of the target. In Model 4, we only include the SC condition; in Model 5, we only include the MOM condition; and in Model 6, we include both conditions. As shown in the table, the results under all the sensitivity analyses are qualitatively similar to the baseline results. Models 5 and 6 also show that a MOM condition yields higher returns for minority shareholders (approximately 6-7 percentage points), but even after controlling for that protection, the *Non-Corporate* variable remains negative and significant.

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[27] We do not control for industry because the vast majority of the non-corporate entities in the sample (75%) are L.Ps in the energy and power sector, and only a small minority of the corporate targets (5%) are in that sector. As a result, given the small size of the sample, including a control for industry would be almost perfectly colinear with the non-corporate variable. Something similar (but in a lower degree) occurs with the consideration structure of the deal (cash versus other forms of payment). While in approximately 70% of corporate freezeouts the consideration structure is cash-only, that type of consideration only represents 35% of the non-corporate freezeouts. In untabulated results, however, the *Non-Corporate* variable remains negative and statistically significant if we control for the consideration structure.

[28] This sample was successful in creating a comparable set of corporate and non-corporate deals across all observable characteristics. A shown in Table A.2 of the Appendix ("Covariate Balancing Tests"), there were no statistically significant differences in any of the covariates between the corporate freezeouts and the non-corporate freezeouts in the matched sample. We matched only on financial covariates because, as mentioned, the controller has greater discretion over the use of SC and MOM conditions. However, the regression results are similar if we match on those conditions as well.

Despite the stability of the results, it is important to emphasize that we do not claim to identify the causal effect of the less stringent regime to which non-corporate freezeouts are subject. The purpose of this paper is to show that there are meaningful differences between corporate and non-corporate freezeouts, and that those differences may be driven by differences in the law. In addition, given the relatively small size of the sample, and especially the sample of non-corporate freezeouts, it would be difficult to perform a more causal analysis. However, with that caveat in mind, it is also important to emphasize that, as discussed earlier, prior studies exploit various changes in corporate law and find that the strength of minority protections are an important driver of the gains of the target shareholders – and thus a plausible explanation for the differences in economic outcomes that we document here (see Subramanian, 2007; Restrepo, 2013; Restrepo and Subramanian, 2015; Restrepo, 2021).

Our results have mixed policy implications. On one hand, a long line of research known as the "law and finance" literature shows a correlation between protections for minority investors and overall capital formation and economic development (see, e.g., La Porta, Lopez-de-Silanes, Shleifer & Vishny 1998, 1999, 2000). The intuition for these findings is that minority investors are more likely to invest in controlled companies knowing that they will receive adequate procedural protections, and ultimately value fair value, on their exit. From this perspective, our findings are troubling. The controller's fiduciary duties to minority shareholders in freezeouts are some of the most important forms of minority shareholder protection. Over time, at least, minority shareholders might be deterred from investing in controlled non-corporate entities, which ultimately reduces capital formation and (at least over time) economic growth.

However, investors in these non-corporate entities went in "eyes wide open" to the absence of fiduciary duties owed to them by their controlling shareholders. Standard law & economics theory dictates that there is no efficiency loss when investors are (or should be) fully aware of the risks that they are taking in their investment (Pritchard 2004). Lower prices on the exit should, at least in theory, be priced as lower prices at entry as well. As (Clark, 1986, p.506) puts it: "[O]nce the power of a controlling group to freeze out other

shareholders becomes clearly established by case law or statute and the governing rules become widely known, shareholders can't raise the defeated-expectations argument anymore."

One potential limitation of these arguments is that investors may not accurately price ex ante the risk of being frozen out at a low price, since a freezeout is not a certain event. As a result, the prospect of receiving a low price in a freezeout may still deter investors from investing in controlled non-corporate entities. In addition, Subramanian (2006) identifies two sources of social welfare loss from permitting freezeouts with no fiduciary duties owed to minority shareholders. First, the controller may engage in nonreversible value reductions in order to pay a lower price in the freezeout, because the loss from the nonreversible value reduction may be offset by the gain to the controller in the form of a lower freezeout price. These nonreversible value reductions, by definition, constitute an efficiency loss because they reduce the intrinsic value of the target company (Subramanian 2006:34). And second, the controller may opportunistically freeze out the minority when the market price of the company is lower than its intrinsic value, which creates incentives for the controller to engage in freezeouts even when they are value-destroying and further deteriorates the ability of minority investors to accurately price ex ante the risk of a low-price freezeout (Subramanian 2006:35).

In the absence of fiduciary duties in non-corporate freezeouts, these two sources of efficiency loss are likely to be pervasive, but the solution is not to ignore fiduciary duty waivers in non-corporate organizational documents. These waivers are part of the "rules of the game," and might have been necessary in order to induce the controller to permit minority owners in the first place. They also have the potential of reducing non-meritorious litigation, which courts have intensely sought to curb in recent years.[29] Instead, we

[29] Before the Delaware Chancery Court's decision in *Trulia*, approximately 90% of all mergers with a value over $100 million involved at least one shareholder suit (e.g., Cain and Solomon, 2015). One important way in which courts responded to the proliferation of litigation was by raising the bar for the approval of settlements, which typically enabled the plaintiff lawyers to collect large fees in exchange for additional disclosures that did not provide clear benefits to the target shareholders. See In re Trulia Stockholder Litigation, 129 A.3d 884, 898 (Del. Ch. 2016). However, other cases also have sought to curb litigation by granting greater weight to procedural conditions. See, e.g., Corwin v. KKR Financial Holdings LLC, 125

recommend that courts should pursue a "light touch" monitoring of non-corporate freezeouts.

This kind of monitoring involves two components. The first is enforcement of the duty of good faith and fair dealing – a duty that cannot be waived and a duty that courts already enforce.[30] This duty requires that controllers clearly disclose the absence of fiduciary protections and not mislead the minority investors into the belief that those duties (or other procedural protections) protected them when they did not.[31] The second component is allowing some degree of substantive review in extreme cases. This would not necessarily require a doctrinal change. Existing case law has suggested that if a transaction is so extremely poor that it could not be attributed to "any rational business purpose" (that is, if it could be characterized as "waste"), then the transaction is considered to have been made in bad faith.[32] In this sense, the power of courts to block transactions that constitute "waste" could be interpreted as a power that is already embedded in the courts' ability to enforce the duty of good faith and fair dealing, and therefore, as mentioned, no legal change (or any change to existing precedent) would be necessary.

The light touch described here should eliminate the most egregious forms of freezeout behavior and temper the efficiency losses that may be associated with our empirical findings. However, we emphasize that delineating the specific contours of the extent to

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A.3d 304, 312–14 (Del. 2015) (en banc); In re MFW Shareholders Litigation, 67 A.3d 496, 500, 528 (Del. Ch. May 29, 2013); Kahn v. M&F Worldwide Corp., 88 A.3d 635, 643 (Del. Supr., 2014).

[30] See, e.g., Miller v. HCP & Co., 2018 WL 656378 (Del. Ch. 2018).

[31] In Miller v. HCP & Co., 2018 WL 656378 (Del. Ch. 2018), for example, the controller stated that he would condition the transaction on approval by a committee of independent directors. This likely created an expectation among the minority investors that that approval would provide some protection, which may in turn have incentivized them to vote in favor of the deal. However, the directors were not independent of the controller.

[32] Cede & Co. v. Technicolor, Inc., 634 A.2d 345 (Del. 1993). For example, in Brehm v. Eisner, 746 A.2d 244, 264 (Del. 2000), the court stated that "irrationality is the outer limit of the business judgment rule. Irrationality may be the functional equivalent of the waste test or it may tend to show that the decision is not made in good faith, which is a key ingredient of the business judgment rule." The court also emphasized, however, that meeting the standard for waste is extremely difficult: "Roughly, a waste entails an exchange of corporate assets for consideration so disproportionately small as to lie beyond the range at which any reasonable person might be willing to trade. Most often the claim is associated with a transfer of corporate assets that serves no corporate purpose; or for which no consideration at all is received. Such a transfer is in effect a gift. If, however, there is any substantial consideration received by the corporation, and if there is a good faith judgment that in the circumstances the transaction is worthwhile, there should be no finding of waste, even if the fact finder would conclude ex post that the transaction was unreasonably risky."

which courts should be able to review the substantive terms of a non-corporate freezeout is beyond the scope of this paper.

Our paper also measures the association between a MOM condition and the returns for the minority shareholders. The fact that the association is close in magnitude (but opposite in direction) to the effect of a non-corporate entity suggests that a MOM condition mitigates the absence of fiduciary duties in non-corporate entities. An important connotation of this result is that MOM conditions likely work to police freezeouts below fair value. Because MOM conditions rarely fail, the effect of a MOM condition probably works through upstream pressure on the special committee. That is, the special committee will have additional leverage against a controlling shareholder if the parties know that the deal will be "backstopped" by a MOM condition.

6. Conclusion

While corporate law scholars have studied corporate freezeouts empirically for more than two decades (e.g., Subramanian 2005; Restrepo 2013; Restrepo and Subramanian, 2015; Restrepo, 2021), to our knowledge this is the first paper to empirically examine non-corporate freezeouts. We find that the returns to the minority shareholders are approximately 10 percentage points lower in non-corporate freezeouts than in corporate freezeouts. Although we do not claim to demonstrate causation from choice of business entity to freezeout outcomes, we argue that the most likely root cause for our findings is the ability for non-corporate entities to waive the duty of loyalty.

Our findings are consistent with our other recent work finding that minority shareholders receive 8-10% lower returns in freezeouts of issuers located in "Restrictive Markets" (i.e., jurisdictions that U.S. authorities have flagged as posing a particularly high risk of exploitation) than investors in domestic companies (Restrepo & Subramanian 2024a). The common theme between these two papers is that legal protections matter and that controlling shareholders will pay lower prices to minority shareholders if the legal rules permit it. While minority investors go in with "eyes wide open" to this fact, and therefore might pay less on entry into one of these entities, our analysis suggests that efficiency

losses (including an efficiency loss that minority shareholders cannot price at entry or otherwise protect themselves against) may still take place. The implication is that courts should pursue a “light touch” monitoring of non-corporate freezeouts through the duty of good faith and fair dealing, which cannot be waived.

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Table 1
Summary statistics

The sample includes all freezeouts with a target incorporated in Delaware, announced between 2000 and 2023. The variables are defined in the appendix. The tests of statistical significance are based on *t*-tests, but the results are similar if we use non-parametric tests. The continuous variables are winsorized at 10% to mitigate the influence of outliers, as described in the text. * significant at 0.10, ** significant at 0.5, and *** significant at 0.01.

Variable	Non-Corporate Freezeouts				Corporate Freezeouts				Difference
	Mean	Median	St. Dv.	N	Mean	Median	St. Dv.	N	of means
$CAR_{(-1,+1)}$	0.10	0.09	0.09	59	0.19	0.17	0.16	276	-0.09***
Deal Value	665.56	474.45	580.68	59	321.14	67.96	484.70	276	344.42***
ROA	1.38	2.12	10.15	59	-8.51	0.00	21.41	276	9.89***
Market-to-book	0.75	0.63	0.62	59	0.67	0.43	0.67	276	0.08
Sales growth	-9.65	-0.16	15.84	59	-7.51	-0.13	14.41	276	-2.15
Completed	0.83	1.00	0.38	59	0.75	1.00	0.43	276	0.08
Financial buyer	0.22	0.00	0.42	59	0.17	0.00	0.38	276	0.05
SC_original	0.90	1.00	0.30	59	0.91	1.00	0.28	237	-0.01
MOM_original	0.24	0.00	0.43	59	0.54	1.00	0.50	237	-0.31***

Table 2
Multivariate analysis

The table presents the baseline regression results. The dependent variable in all models is $CAR_{(-1,+1)}$. Model 1 presents a regression model without any control other than the *Non-Corporate* variable. Model 2 is a parsimonious model that includes only controls for the size of the deal, one proxy for profitability, and the market-to-book ratio. Model 3 includes all the controls. * significant at 0.10, ** significant at 0.5, and *** significant at 0.01.

Variable	(1)	(2)	(3)	(4)
Non-Corporate	-0.091***	-0.097***	-0.109***	-0.112***
	(-6.03)	(-6.10)	(-6.29)	(-6.34)
Log(Value)		0.005	0.005	0.003
		(1.35)	(1.14)	(0.74)
ROA		-0.000	-0.000	-0.000
		(-0.27)	(-0.31)	(-0.38)
Market-to-book		-0.032***	-0.030**	-0.026**
		(-2.74)	(-2.53)	(-2.25)
Spread over prime			0.216*	0.206*
			(1.92)	(1.82)
Sales growth				-0.000
				(-0.51)
Completed				0.046**
				(2.39)
Financial buyer				0.039*
				(1.88)
R-squared	0.054	0.073	0.083	0.106
N	335	335	335	335

Table 3
Sensitivity analyses

The table presents sensitivity analyses on the relationship between non-corporate freezeouts and deal outcomes. The dependent variable in all models is $CAR_{(-1,+1)}$. Model 1 is from a matched sample. Model 2 includes only completed deals. Model 3 includes only freezeouts in which the controller had 50% or more of the shares of the target before the transaction. Models 4 through 6 include controls for procedural protections for the minority shareholders (SC and MOM conditions). * significant at 0.10, ** significant at 0.5, and *** significant at 0.01.

Variable	(1)	(2)	(3)	(4)	(5)	(6)
Non-Corporate	-0.108***	-0.121***	-0.095***	-0.113***	-0.083***	-0.087***
	(-5.17)	(-6.01)	(-4.47)	(-6.44)	(-4.56)	(-4.77)
Log(Value)	-0.008	-0.001	0.000	0.001	0.000	-0.001
	(-1.15)	(-0.15)	(0.06)	(0.15)	(0.02)	(-0.21)
ROA	0.001	-0.000	0.000	-0.000	-0.000	-0.000
	(0.70)	(-0.11)	(0.03)	(-0.39)	(-0.59)	(-0.58)
Market-to-book	0.007	-0.016	-0.023*	-0.023*	-0.024**	-0.022*
	(0.47)	(-1.17)	(-1.73)	(-1.93)	(-2.06)	(-1.90)
Sales growth	-0.000	0.000	0.000	-0.000	-0.000	-0.000
	(-0.79)	(0.45)	(0.56)	(-0.71)	(-0.21)	(-0.36)
Financial buyer	0.033	0.032	0.023	0.043**	0.045**	0.046**
	(1.31)	(1.28)	(0.84)	(2.14)	(2.17)	(2.28)
Completed	0.051	0.000	0.042*	0.039**	0.036*	0.033*
	(1.66)	(.)	(1.76)	(2.04)	(1.87)	(1.73)
Spread over prime	0.162	0.348**	0.270**	0.188*	0.112	0.114
	(0.93)	(2.09)	(1.99)	(1.73)	(1.06)	(1.08)
SC				0.058***		0.032
				(2.81)		(1.51)
MOM					0.071***	0.062***
					(4.43)	(3.70)
R-squared	0.245	0.110	0.083	0.127	0.154	0.160
N	116	256	234	335	335	335

Appendix

Table A.1.
Variable definitions

Variable	Description
Cash-only	Binary variable that equals 1 for deals in which the consideration structure consisted only of cash and 0 otherwise.
$CARs_{(-t,+t)}$	Cumulative abnormal returns for the stock of the target company around *t* days relative to the announcement of the transaction.
Completed	Dummy variable that takes the value of 1 for completed deals and 0 otherwise.
Log(deal value)	Natural log of the deal value, which in turn is defined as the number of shares multiplied by the price per share.
Market-to-book	Ratio of the market value of common stock to the book value of equity for the prior fiscal year.
MOM	Indicator variable that takes the value of one if the freezeout was conditioned on approval by the majority-of-the-minority shareholders of the target.
Non-Corporate	Dummy variable that takes the value of 1 for freezeouts of non-corporate targets and 0 otherwise.
ROA	Ratio of net income to the total assets of the target for the most recent fiscal year prior to the announcement of the transaction.
Sales growth	Change in sales from two years before the announcement of the transaction to the prior fiscal year.
SC	Indicator variable that takes the value of one if the freezeout was conditioned on approval by a special committee of independent directors of the target.
Spread over prime	Difference between the prime rate and the federal funds rate (measured at the quarterly level). The prime rate is a reference rate at which banks price short-term business loans. The federal funds rate is the rate at which commercial banks borrow and lend their excess reserved among themselves.

Table A.2.
Covariate balancing tests for the matched sample

The table presents the characteristics of the matched sample of corporate and non-corporate freezeouts, as well as differences in means in those characteristics. We built the matched sample using propensity score matching, as described in the text. The matching procedure was one-to-one matching, so there is one corporate freezeout per each non-corporate transaction. We matched only on financial covariates. The variables are defined in the appendix. The tests of statistical significance are based on *t*-tests. * significant at 0.10, ** significant at 0.5, and *** significant at 0.01.

Variable	Non-Corporate Freezeouts				Corporate Freezeouts				Difference of means
	Mean	Median	St. Dv.	N	Mean	Median	St. Dv.	N	
Log(Value	6.14	6.18	1.68	58	6.24	6.45	2.08	58	-0.10
ROA	1.39	2.62	10.24	58	1.01	0.84	6.78	58	0.38
Market-to-book	0.76	0.63	0.62	58	0.74	0.47	0.68	58	0.02
Sales growth	-9.82	-0.17	15.93	58	-9.85	-0.14	15.90	58	0.04
Financial buyer	0.21	0.00	0.41	58	0.28	0.00	0.45	58	-0.07
Completed	0.84	1.00	0.37	58	0.84	1.00	0.37	58	0.00