### The role of minority shareholders in private companies

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### Abstract

Evidence on the role of minority shareholders in private companies is very limited. Using hand collected data on private companies, I document evidence of excessive monitoring (or excessive influence) by minority shareholders in private corporations. I define excessive monitoring as the actual pressure by minority shareholders to influence firm decisions or the expectation of minority pressure by majority shareholders, thereby impacting efficient firm outcomes. I draw on a landmark judgment by the Texas Supreme Court in June 2014, which significantly curtailed minority shareholders' influence in private firms. The judgment provides a natural experiment to examine how the reduced influence, brought on by the judgment, impacted the effectiveness of monitoring by minority shareholders and thereby impacted firm performance. My tests document improved firm performance after the ruling. This finding suggests that the influence that the minority shareholders had prior to the judgment, facilitated excessive monitoring of the majority shareholders. The reduced influence of minority, brought on by the judgment, provided the managers more freedom to run the firm efficiently. Further, by showing an increase in investments after the ruling, I document investments as a potential channel of monitoring by minority shareholders. The finding suggests risk aversion on the part of minority shareholders, who prefer to block risky but potentially value enhancing investments. In additional tests, I find that the impact of the ruling is more pronounced in companies with a higher likelihood of excessive monitoring by minority shareholders, e.g. poorly performing firms and small firms. This additional evidence corroborates my broad finding of over monitoring by minority shareholders.

Very preliminary draft

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### The role of minority shareholders in private companies

### **1: INTRODUCTION**

This paper studies the role of minority shareholders in private companies. Prior research on minority interest focus on public companies (e.g., Ang et al., 2000; Edmans and Manso 2010; McCahery et al. 2016). These studies broadly find that minority shareholders, on average, do not engage in active monitoring of the manager. However, it is not clear whether this broad finding will generalize to private companies. This is because minority shareholders in private companies (hereafter called private minority) face a unique set of constraints which do not apply to minority shareholders in public companies (hereafter called private minority). These constraints arise because a) shares in private companies are not traded on equity markets which prevents private minority from exiting the firm in case of disagreements with the majority shareholders; b) private minority generally lacks the protection afforded by SEC rules and regulations; and c) majority shareholders are also usually the managers in most private companies which facilitates extraction of private benefits at the expense of the minority shareholders.<sup>1</sup> These constraints are significant enough to alter monitoring incentives of private minority and thereby warrant a close examination of minority shareholders in private companies. To the best of my knowledge, there is no other paper which has documented evidence on this topic. My paper aims to fill this gap in the literature.

Closely held corporations are a form of private corporations, characterized by very limited shareholders and absence of a board of directors.<sup>2</sup> As a result, the constraints faced by private minority can be especially severe in closely held corporations. I draw on a landmark judgment passed in June 2014 by the Texas Supreme Court, which significantly impacted minority rights in closely-held corporations. Specifically, this judgment (hereafter called the ruling) significantly narrowed the scope of 'shareholder

<sup>&</sup>lt;sup>1</sup> Please refer to Appendix 4 for a detailed explanation of all differences between minority shareholders in private and public companies, and how these factors relate to existing empirical evidence

<sup>&</sup>lt;sup>2</sup> I use the terms close corporations and closely held corporations synonymously. I also use the words majority shareholders, controlling shareholders and managers (in the context of private companies) interchangeably

oppression' and effectively terminated the grant of buy-out remedy to minority shareholders.<sup>3</sup> The buy-out remedy imposed a significant wealth risk to the majority shareholders, and thereby it granted significant bargaining power to the minority shareholders. By terminating buy-out remedy, the ruling significantly reduced the bargaining power minority shareholders had in the firms. The ruling was unexpected because grant of buy-out remedy had become the prevailing approach in the Texas judicial system for more than 25 years. The ruling thereby provides a natural experiment to examine how the reduced bargaining power of minority shareholders of the effectiveness of their monitoring and thereby impacted firm performance. I employ a difference-in-difference specification and analyze how performance of close corporations changed relative to that of non-close corporations from the pre-ruling to the post-ruling era.<sup>4</sup>

The impact of the ruling on firm performance cannot be predicted clearly due to two contrasting forces. On one hand, studies including LaPorta et al. (2002) and Leuz et al. (2003) document a positive association between minority shareholder rights and firm performance. In line with this evidence, since the ruling negatively impacted minority shareholder rights, performance of close corporations would decline after the ruling (I call this 'efficiency hypothesis'). This line of thinking would also imply that the influence that the minority shareholders had, prior to the ruling, was beneficial to the firm.

On the other hand, the results of the above studies, while insightful, do not consider private corporations in the US. Minority shareholders in private companies differ from minority shareholders in public companies on three key aspects, which can incentivize closer monitoring of majority shareholders in private corporations.<sup>5</sup> First, private minority shares lack liquidity, which prevents them from quickly selling their shares in case of disagreement with the managers. Second, in most private companies, majority owners are also the managers. The owner-manager duality can facilitate extraction of private benefits at the

<sup>&</sup>lt;sup>3</sup> Buy-out remedy is a court order requiring the majority shareholders to buy out the minority stake at a prescribed value or using a prescribed valuation formula

<sup>&</sup>lt;sup>4</sup> I use non-closely held private corporations as a control sample, because close corporations are a type of private corporations.

<sup>&</sup>lt;sup>5</sup> Studies such as Givoly et al. (2010), Beatty et al. (2002), Burgstahler et al. (2006) and Ball & Shivakumar (2005) document how public vs private ownership of equity can influence firm outcomes.

expense of minority shareholders. Third, private minority lack diversification in their portfolio. As documented by Moskowitz and Vissing-Jorgensen (2002), close to 70% of private investors' wealth is invested in the firm. Lack of diversification can make minority shareholder wealth significantly sensitive to small changes, and thereby lead to risk aversion. Risk aversion can induce them to block risky but potentially value increasing projects. All these differences suggest strong incentives for minority shareholders to closely monitor the managers, in order to protect their investment in the firm. Presence of the buy-out remedy was important because it facilitated close monitoring of the majority shareholders. Thus, termination of buy-out remedy was important because it significantly reduced minority bargaining power, and made their monitoring much less effective. This implies that all other things held constant, the performance of close corporations would improve after the ruling (I call this 'excessive monitoring hypothesis'). I define excessive monitoring as actual pressure from the minority shareholders, or the pressure anticipated by majority shareholders, from the minority shareholders, thereby impacting efficient firm outcomes. One question that arises in the excessive monitoring hypothesis is why minority shareholders would use their bargaining power to monitor the controlling shareholders, if the monitoring hurt the firm. In public companies, minority shareholders have access to multiple sources of information that can provide feedback about managers' decisions. However, in private companies, there is no outside source of information that the minority shareholders can rely on. Absent feedback channels, minority shareholders are not in a position to identify the negative effects of their monitoring.

Using hand collected data on private companies from several sources, I document evidence consistent with excessive monitoring by minority shareholders. Specifically, the findings imply that after the ruling, performance of close corporations improved significantly relative to the performance of nonclose corporations. Prior to the judgment, the bargaining power afforded by the presence of the buy-out remedy facilitated excessive monitoring (ineffective monitoring) of the majority shareholders. Termination of the buy-out remedy helped reduce minority influence and allowed managers more room to undertake additional investments and improve firm performance. I conduct several robustness tests including use of alternative performance measures, matched sample analysis as well as bootstrapping. The results are qualitatively similar in all the robustness tests.

It should be noted that since data on distributions and salaries is not observable, I cannot conclude whether minority shareholders' overall wealth improved after the ruling. In addition, the improvement in firm performance after the ruling could be driven by reduction in monitoring or by the reduction in the effectiveness of the monitoring. It is possible that minority shareholders tried to monitor the managers even after the ruling. But the effectiveness of the monitoring reduced on account of the ruling.<sup>6</sup>

I then test for a channel for the excessive monitoring by minority shareholders. Burkart et al. (1997) show that excessive monitoring by non-controlling shareholders reduces managers' initiatives, especially in undertaking new investments.<sup>7</sup> In line with Burkart et al. (1997), I analyze how investments in close corporations change after the ruling. I use two proxies for investments – inventory scaled by assets and a dummy variable for increase in PPE<sup>8</sup>. I find a moderate increase in inventory and PPE for closely held corporations after the ruling. This finding suggests that prior to the ruling, minority influence restricted firm investments. This also suggests possible risk aversion by minority shareholders, preferring status quo to risky but potentially value increasing investments.

To corroborate my evidence on excessive monitoring by minority shareholders, I conduct two additional tests. For the first test, I draw on studies that document stricter disciplining of the manager in firms with poor performance.<sup>9</sup> Using previous two years' change in sales, I distinguish poor performers from strong performers. If my excessive monitoring hypothesis is true, the extent of monitoring would be higher in firms with declining sales than in firms with growing sales. Consistent with my expectation, I find

<sup>&</sup>lt;sup>6</sup> For instance, prior to the ruling, they would send 10 emails to the controlling shareholder each day. After the ruling, they still sent the emails, but the manager didn't feel the need to respond to any of them.

<sup>&</sup>lt;sup>7</sup> This is also in line with an anecdote received from a CEO in my sample

<sup>&</sup>lt;sup>8</sup> I do not have data on R&D expenses. Moreover, I use a dummy variable for increase in PPE rather than a continuous variable because the change in PPE for my sample is highly skewed.

<sup>&</sup>lt;sup>9</sup> Kang & Shivdasani (1995) find a negative relation between firm performance and probability of president turnover. Matsunaga & Park (2001) document an adverse effect on CEO annual cash bonus when the firm's quarterly earnings fall short of a benchmark (consensus analyst forecast or prior performance)

that the improvement in performance of close corporations after the ruling is more pronounced for poor performers than for strong performers. For the second test, I partition my sample based on firm size. Existing literature has documented higher levels of monitoring in smaller firms.<sup>10</sup> Again, if minority shareholders use their bargaining power to excessively monitor majority shareholders, the extent of monitoring would be higher in smaller firms, than in larger firms and the improvement in firm performance would be more pronounced for smaller firms. Consistent with my expectation, I find that the improvement in performance of close corporations is more pronounced for small firms than for large firms. These two tests corroborate my conclusion that minority shareholders in private corporations excessively monitor controlling shareholders.

I contribute to existing research in four ways. First, I document evidence on excessive monitoring by minority shareholders in private companies. My results align with the notion of excessive monitoring by minority shareholders in private corporations, as suggested by Pagano & Roell (1998).<sup>11</sup> Second, I contribute to the literature by documenting that prior findings on minority shareholder rights using public companies' data do not generalize to private companies. I find that a decline in minority shareholder rights actually benefited the firm. I believe that this contrast stems from key differences between minority shareholders in private and public companies, including owner-manager duality, lack of liquidity, as well as limited portfolio diversification, which could drive monitoring incentives differently.<sup>12</sup> Third, I document evidence of real effects of minority monitoring on investments. I document an increase in investments after the minority bargaining power was reduced by the ruling. The evidence is consistent with Burkart et al. (1997) who state that excessive interference can reduce manager's initiatives, especially in undertaking new investments. Fourth, Edmans & Holderness (2017) call for research involving types of blockholders, specifically on the role of individuals vis-à-vis institutions. Minority shareholders in private

<sup>&</sup>lt;sup>10</sup> Armstrong et al. (2014, JFE) find a positive relation between size and independent director %. Schmidt & Fahlenbrach (2017, JFE) show positive relation between market cap and number of new independent directors

<sup>&</sup>lt;sup>11</sup> Pagano & Roell (1998) state that excessive monitoring (over disciplining) is a cost to the entrepreneur.

<sup>&</sup>lt;sup>12</sup> Appendix 4 provides detailed descriptions of the differences in minority shareholders in private and public companies.

firms can be considered as individuals who are blockholders (individual-blockholders).<sup>13</sup> My results provide insights into the monitoring role of individual-blockholders.

My paper proceeds as follows: Section 2 provides details on the Texas Supreme Court ruling, section 3 talks about literature review and hypothesis development, section 4 talks about data collection and research design; section 5 presents the results and section 6 concludes.

<sup>&</sup>lt;sup>13</sup> Blockholders are defined as having a stake of 5% or more. Minority stakes in private companies are usually 5% or more.

### 2: Texas Supreme Court ruling in June 2014: Ritchie v. Rupe

The judicial landscape for minority shareholder rights and minority shareholder oppression in Texas has been shaped by a seminal judgment dating back to 1988. In that judgment, called Davis v. Sheerin, the Court of Appeals laid down two tests for minority shareholder oppression (1) reasonable expectations test or (2) fair dealing test. According to the reasonable expectations test, an act of a majority shareholder can be considered oppressive if it defeats the reasonable expectations that were central to the shareholder's decision to join the venture. This includes expectations about information disclosure, reasonable returns on their investment in the firm, as well as help in selling the shares. Fair dealing test refers to actions of the majority shareholders or directors, if present, which exhibit visual departure from the standards of fair dealing and probity, and a violation of fair play. The Court in its 1988 judgment, also ordered the majority shareholders to buy out the minority stake, which has come to be called the buy-out remedy. The Court acknowledged that the Texas Business Statute did not expressly authorize a buy-out order, and that no Texas Court had previously forced a shareholder buyout in the absence of a buy-out agreement. However, the Court of Appeals concluded that Texas Courts may, under their general equity power, decree a buy out in an appropriate case where less harsh remedies are inadequate to protect the rights of the parties. The practice of buy-out remedy had thus become a prevailing approach in the Texas judicial system, and had shaped the landscape of minority shareholder oppression. The current case, Ritchie v. Rupe (2014), came up because Mrs. Anne Rupe, an 18% minority shareholder in Ritchie Investment Corp. (RIC) wanted to sell her shares. In line with the right of first refusal, she offered her shares to the other shareholders. When they refused to buy the shares, she scouted for a buyer outside the firm, using the services of an investment manager. She found a few potential buyers, each of whom wanted to meet the management / majority shareholder before investing in the firm. However, the management refused to meet any buyer. As a result, the minority shareholder was unable to sell her shares. She construed these actions of the majority shareholders as a way to squeeze her out and sued them for 'shareholder oppression'. Initially, the lawsuit was ruled in favor of the minority shareholder. The Court of Appeals granted a buy-out remedy, whereby the majority shareholders were directed to buy the minority stake for \$7.3 million. This ruling was in line with the prevailing approach, as explained earlier. However, the Texas Supreme Court later overturned the decision and drastically redefined the minority shareholder oppression landscape. The Court completely rejected the shareholder oppression cause of action the way it had been developed in the appellate courts. The Court further rejected the two tests of oppression and concluded that the acts of the majority shareholders can be considered oppressive only if they abuse their authority over the corporation with the intent to harm the interests of one or more of the shareholders, in a manner that does not comport with the honest exercise of their business judgment, and by doing so create a serious risk of harm to the corporation. In addition, the Court also refused the grant of a buy-out remedy in the absence of an express buy-out agreement within the shareholders. The Court stated that the minority shareholders have to refer to their shareholders' agreement and use all rights available in the agreement. The only right available to minority shareholders outside of the shareholders' agreement, was the right to appoint a receiver and force dissolution of the company. However, the Court also stated that right to receivership can only be granted if the acts of the majority shareholders or directors involved a serious threat to the well-being of the corporations. The 2014 ruling was a landmark one because it redefined the scope of shareholder oppression, and effectively terminated the grant of buy-out remedy. As we can see, the buy-out remedy imposed a significant wealth risk to the majority shareholders. Many times, including in the current ruling, majority shareholders do not have the resources required to comply with the buy-out remedy. As a result, the presence of a buy-out remedy imposed a serious wealth risk to the majority shareholders and granted significant influence to the minority shareholders in the firm. This facilitated close monitoring of the majority shareholders.<sup>14</sup> Termination of the buy-out remedy thereby helped reduce the influence of the minority significantly, and gave more freedom to the majority shareholders to run the firm efficiently.

<sup>&</sup>lt;sup>14</sup> I define excessive monitoring as the actual pressure or the anticipation by majority shareholders, of the pressure, by minority shareholders to block certain investments that are risky but potentially value increasing.

Many legal experts consider this decision to be a landmark case in the area of minority shareholder oppression. The ruling thereby provides a natural experiment to examine how the reduced influence of minority shareholders impacted firm performance, use the evidence to infer about their role in private corporations.

The below timeline	provides a qu	ick overview	of what events	transpired ur	to the June 2014	4 ruling
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Year 2002	the original shareholder dies; leaves his 18% stake for his wife and son
Year 2004	Widow wants to sell her shares; offers shares to other shareholders
Jan 2005	Offer from other shareholders of \$1 mn; widow refuses
Feb 2005	Revised offer of \$1.7 mn; again refused on the grounds of not commensurate
	with the assets and revenues
March 2005	Appoints financial advisor to find outside buyer
Jan to Jun 2006	Outside buyers tried to meet the managing shareholders; but they refused to
	meet any of the potential buyers; financial advisor said almost impossible to sell
	without managing shareholders' meeting
July 2006	Widow sued the managing shareholders for minority shareholder oppression
Mar-Apr 2011	Dallas Court of Appeals rules in favor of minority shareholder; allows for a buy-
	out of her shares for \$7.3 mn
Apr 2011-Feb 2012	Managing shareholders appealed to Texas Supreme Court for hearing petition
Mar 2012	Texas Supreme Court granted their motion for rehearing / review
Feb 2013	Oral arguments were heard in Texas Supreme Court; Nine amicus curiae briefs
	also filed (expert information from parties not directly involved in the case, but
	could be affected by the case)
Jun 2014	Texas Supreme Court passed the judgment, overturning Dallas Court of Appeals
	decision, and nullifying the buy-out remedy

### **3: LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

A minority shareholder holds a very unique position in the firm. While she provides capital to the firm, she gets no say in deciding how the capital will be utilized or invested. If minority shareholders have no rights, have no role to play, they will refuse to provide the requisite capital to the firm, and many firms would suffer. As a result, it becomes important to understand the role of minority shareholders, their rights and limitations, and how their rights interplay with firm outcomes.

Existing literature has studied the role of minority shareholders mostly from the perspective of public companies. The literature has found that minority shareholders, on average, do not engage in active monitoring of the manager. Due to a small stake in the firm, the benefits from monitoring are not large enough to justify the costs of monitoring. Edmans & Manso (2010) find that a structure with numerous small blockholders can be suboptimal for governance, as splitting of equity between numerous shareholders leads to a free-rider problem. Some papers have further found that even a larger stake may not necessarily incentivize the shareholder to engage in active monitoring.<sup>15</sup> For instance, Kahn & Winton (1998) show that a blockholder may instead 'cut and run': not intervene and sell her shares. Even institutional investors may not actively monitor managers, due to free-rider problems (Grossman & Hart 1980; Shleifer & Vishny 1986), conflicts of interest such as other business ties with the firm (Duan, Hotchkiss and Jiao 2014) or potential business ties with the firm (Cvijanovic, Dasgupta and Zachariadis 2016). Moreover, McCahery, Sautner & Starks (2016) find that legal factors such as rules against concerted action can also limit active monitoring by institutional investors. While there is a vast literature studying minority interest in public companies, there is little to no research on the role of minority shareholders in private companies. Since minority shareholders in private companies differ significantly from those in public companies, the role of minority shareholders in private companies warrants a closer examination.

<sup>&</sup>lt;sup>15</sup> There is no official definition of a large stake. Papers use blockholders (5% or more stake), institutional investors as proxies for 'large' stakes.

There are significant differences between minority shareholders in public companies and private companies. An important difference is the ability to sell their shares on an equity market. While minority shareholders in public companies can buy and sell their shares in a competitive market, minority shareholders in private companies do not have that option. As a result, in case of disagreement with the majority owners, they cannot quickly sell the shares and exit the firm. Stock liquidity has been shown to influence the extent and type of monitoring by shareholders<sup>16</sup>. Edmans (2014) has documented that stock illiquidity reduces the profitability of selling, and thus encourages intervention by blockholders. Coffee (1991) and Bhide (1993) have argued that higher liquidity reduces active monitoring of managers as it facilitates exit by shareholders<sup>17</sup>. Few other papers have shown that liquidity improves active monitoring as the possibility of exit is sufficient to incentivize the manager to maximize firm value. The lack of liquidity of shares in private companies should influence the monitoring behavior of minority shareholders. Another key difference between minority shareholders in private and public companies is that private minority are usually much less diversified than the public minority are. Moskowitz and Vissing-Jorgensen (2002) find that about 75% of all private equity is owned by households for whom it constitutes at least half of their total net worth. Furthermore, households with entrepreneurial equity invest on average more than 70% of their private holdings in a single private company in which they have an active management interest. Ekholm and Maury (2014) find that investors have particularly strong incentives to monitor a stock that occupies a large part of their overall portfolio. In addition, Faccio et al. (2011) find that nondiversified large shareholders exhibit greater conservatism than diversified large shareholders. Firms controlled by diversified large shareholders undertake riskier investments than firms controlled by nondiversified large shareholders. Consistent with these findings, the lower diversification by minority shareholders in private companies should make them more conservative, and lead to (excessive) monitoring of firms' managers. Another key difference is the owner-manager duality. In most private companies, majority owners are also

<sup>&</sup>lt;sup>16</sup> The literature has identified two forms of monitoring – voice and exit. Voice implies active monitoring – voting, proxy fights, etc. Exit is by selling or threatening to sell the shares upon less than satisfactory performance.

<sup>&</sup>lt;sup>17</sup> There are many other papers which have shown how liquidity influences governance of a firm. The papers mentioned here are just a few, to drive home the point.

usually the managers (or someone from their family is the manager). This owner-manager duality facilitates easy extraction of private benefits at the expense of minority shareholders. In addition, private minority do not usually have the protection afforded by SEC rules and regulation.<sup>18</sup> SEC rules provide monitoring tools, which are generally nonexistent in private companies. Lack or absence of such rules provides higher incentives for the minority shareholders in private companies to closely monitor the managers. I hypothesize that all these differences are significant enough to influence the behavior of minority shareholders in private companies, in a way not captured by existing evidence using public companies.

I draw on a landmark judgment passed in June 2014 by the Texas Supreme Court, which significantly reduced minority shareholder influence in close corporations in Texas.<sup>19</sup> I assess how the reduced influence of minority shareholders, brought on by the ruling, impacted firm performance. The evidence allows me to infer on the role of minority shareholders. However, given the limited literature on private companies, it is not clear what effect such ruling will have on firm performance. As explained earlier, minority shareholders in private companies are different from those in public companies. On the one hand, these differences could make minority shareholders actively engage in the firm's operations and thereby make them effective monitors for managers. Thus, the ruling, which weakened the rights of minority shareholders, can negatively impact firm productivity and profits. On the other hand, given the constraints they face, minority shareholders may end up constraining firms too much, preferring the "status quo" to expansion and risk taking. In this case, reducing the influence of minority shareholders can positively impact firm investments and future performance. Thus, it is not clear ex-ante, how the ruling will impact firm performance. As a result, I state my hypothesis in the null form as follows:

 $H_0$ : Firm performance will remain unchanged after the ruling of the Texas Supreme Court; that is, minority shareholders in private companies will not exhibit any active role

<sup>&</sup>lt;sup>18</sup> One exception to this that I am aware of is that minority shareholders in private companies can bring a rule 10b-5 suit against the majority shareholders. <u>https://www.wilmerhale.com/en/insights/publications/sec-reaffirms-the-broad-reach-of-rule-10b-5-to-private-companies-december-22-2011</u>.

<sup>&</sup>lt;sup>19</sup> For more information on the ruling, please refer to Section 2.

### 4: DATA COLLECTION AND RESEARCH METHODOLOGY

### 4.1: Data Collection

In this paper, I study the role of minority shareholders in private corporations. I draw on a landmark judgment (ruling) by the Texas Supreme Court in June 2014. The ruling narrowed the scope of 'shareholder oppression' and thereby effectively terminated the grant of buy-out remedy to minority shareholders in closely held corporations. The buy-out remedy imposed a significant wealth risk to the majority shareholders and thereby gave significant bargaining power to the minority shareholders. In terminating the buy-out remedy, the ruling significantly reduced the minority bargaining power. The ruling thereby provides a natural experiment to examine how the reduced influence of minority shareholders impacted the minority monitoring and thereby impacted firm performance. I examine how the performance of close corporations changed relative to that of non-close corporations, from the pre-ruling to the post-ruling era. Data on private corporations, especially close corporations, is not easily available. I hand collect all the required data from various sources. I use Capital IQ database to collect financial as well as non-financial data on private corporations, including address, SIC code, as well as year of founding. I start with the entire sample of private corporations registered within Texas, available in the Capital IQ database. I then narrowed the sample to those firms which have financial information for all years starting from 2012 till 2016.<sup>20</sup> I then excluded firms belonging to the 1-digit SIC code of 6 (financial institutions), based on earlier literature on corporate governance. I also excluded firms belonging to the 1-digit SIC code of 8 (service oriented firms). These firms are not characterized by a typical shareholding structure. This includes firms such as law firms, hospitals, consulting firms where the firms are either owned by managing partners or operated by a trust. I also excluded nonprofit firms, as these firms do not have the typical shareholding structure I need in order to study the question. I identified nonprofit firms based on SIC code of 7997; in addition, I also confirmed their nonprofit status by reviewing the Articles of Incorporation as filed with the Texas

<sup>&</sup>lt;sup>20</sup> This potentially removes firms with data for the pre period but not for the post period, and vice versa. Including firms with information for only the pre or post period could bias my results.

Secretary of State (SOS). Data on SIC codes was also obtained from Capital IQ database. Data in Capital IQ wasn't in a form readable in SAS or STATA. Financial data was in excel sheets, one each for each firm. Even for each firm, Income Statement and Balance Sheet were given on separate tabs. So, the first task was to combine all the financial information into one place, in STATA readable form. Nonfinancial information, such as firm address and SIC Code was available in separate Word documents. I manually keyed in the nonfinancial information in STATA readable form. After all the filters were applied, I had a sample of 340 firms. The next task was to identify the close corporation status of each firm in my sample.<sup>21</sup> To do that, I manually reviewed each firm's Articles of Incorporation. A firm's close corporation status would usually be either mentioned as a separate clause, or be embedded in its name.<sup>22</sup> If the information could not be identified from the AOI, I would look for another document, called the 'Statement to Operate as a Close Corporation'. If that statement was available, I would classify that firms as a close corporation. If both documents were missing, I looked for information on the company's shareholding structure. A close corporation is a private firm characterized by very limited number of shareholders, and management participation by most of the shareholders. Close corporations are also characterized by the absence of a formal board of directors. As a result, if both the AOI and Statement to Operate as a Close Corporation were unavailable, I would look for any other document with information on the shareholding structure, as well as the management structure.<sup>23</sup> If after reviewing all documents, there was no conclusive information about the close corporation status of a firm, or the firm had expressly chosen not to be a close corporation, I classified the firm as a non-close corporation. It is possible that some close corporations could be classified as a private firm, because information on its close corporation wasn't available. However, that biases against finding any result. If despite this bias I find significant results, it adds credibility to my findings. While collecting data on the firms, there was one challenge. The documents uploaded on the SOS website were scanned copies of physical documents. There was no language processing or textual analysis tool that

<sup>&</sup>lt;sup>21</sup> A flowchart of the steps involved in identifying close corporation status of a firm can be found in Figure 2.

<sup>&</sup>lt;sup>22</sup> Please see Appendix 1 for different examples of how information on close corporation status was displayed

<sup>&</sup>lt;sup>23</sup> An example of such a document would be merger related filing, which listed information on all shareholders from both the firms.

I am aware of that could be used on these documents As a result, I had to manually read through each AOI and all other documents on the SOS website, in order to obtain data on a firm's close corporation status. To make sure that there was no error in classifying the firms, I audited a few firms from my sample again, a few days after my data collection was over. I didn't find any errors there.

### 4.2: Research Methodology

Because I compare the performance of close corporations with that of non-close corporations from the pre-ruling to the post-ruling era, I use a difference-in-difference (DID) specification to study my research question. I use the following model: (1)

### Firm Performance<sub>it</sub>

$$= \alpha_{0} + \beta_{1}Close + \beta_{2}Post + \beta_{3}Post * Close + \beta_{4}Size_{it} + \beta_{5}Performance_{it-1}$$
$$+ \beta_{6}Firm Age + \beta_{7}Leverage_{it} + \beta_{8}Ind Profit Margin + \beta_{9}\Delta US GDP_{t}$$
$$+ \beta_{10}\Delta TX GDP_{t} + \Sigma Industry FE + \varepsilon_{it}$$

In the above model, firm performance is measured as return on assets<sup>24</sup>. I also use return on equity as well as profit margin as alternate measures of firm performance. Close is a dummy variable equal to 1 if the firm is a close corporation (closely-held corporation). Post is a dummy variable equal to 1 if the observation falls in the post-ruling period. Both, pre-ruling and post-ruling include one year periods in relation to the ruling. The interaction terms *Close* \* *Post* is my variable of interest. It identifies the incremental impact on performance of close corporations after the judgment. I control for as many variables possible, as my data allows. These include size, which is calculated as natural logarithm of assets. I also control for the lagged measure of performance (lagged ROA, lagged ROE or lagged profit margin depending on the performance measure I use as the dependent variable). This variable controls for persistence in earnings that might drive

<sup>&</sup>lt;sup>24</sup> For definition of variables, please refer to Appendix 2.

my results. I also control for firm age. Firm age has been documented to influence the quality of corporate governance (for example, Zahra, 2014; Berry et al. 2006; Acharya et al. 2011). I calculate firm age as the current year less the founding year. I obtained the founding year primarily from the Articles of Incorporation. Every AOI has a registration date. I took the year from that date as the founding year. In order to confirm that was accurate, I also compared founding years for a few firms with the data from Capital IQ, wherever available. I also control for leverage, which is calculated as total debt divided by total liabilities. Alternatively, I also use total liabilities divided by total assets as another measure of leverage. Higher leverage could imply higher financial risk faced by a company. As a company becomes riskier, monitoring by shareholders should also increase. I also control for industry profit margin; existing literature on corporate governance states that product market competition is an external governance mechanism. Shleifer & Vishny (1997) suggest that product market competition would be an effective external governance mechanism. Companies making bad decisions would be ousted and won't get the desired financial capital due to the fear that the money won't be returned. To control for any effect from product market competition, I use the industry profit margin as a control variable.<sup>25</sup> I use Fama French 12 industry classification as my industry definition. I also control for the growth in US GDP as well as growth in Texas GDP. The two GDP measures allow me to control for any simultaneous macroeconomic shocks that may have occurred at the same time as the ruling. In additional tests, I also control for the change in the GDP in the MSA in which the firm is located. Information on a firm's MSA was obtained by matching its zip code to the respective MSA. I obtained the zip code to MSA mapping from the website of the US Department of Labor. I also control for industry fixed effects, using the Fama French 12-industry classification. Although, as we can see in Table 3, the industry representation is very consistent across the close corporations and non-close corporations, which should anyway reduce any industry bias or effect, yet I control for industry fixed effects as well in order to completely remove any industry-level effect.

<sup>&</sup>lt;sup>25</sup> This is calculated as the average profit margin of all firms in my sample as well as public firms from the Compustat database, within the same Fama French 12 industry classification.

### **5: RESULTS**

### 5.1: Descriptive Statistics

Table 1 presents descriptive statistics for the key variables used in the study. As we can see, close corporations are usually smaller in size than non-close corporations. An average close corporation has about \$4 million in assets, whereas an average non-close corporation has about 4.2 million in assets. However, the difference in size between close and non-close corporations is not statistically significant. Median size is slightly lower than mean size for both close and non-close corporations, implying a slight skewness in the size distribution. Close corporations also exhibit lower sales revenues in general. An average close corporation has about \$11 million in sales in the pre-ruling period, whereas an average non-close firm has about \$19 million in sales in the pre-ruling period. The difference in sales between close and non-close corporations for both, pre and post period are not statistically significant. Close corporations are also less profitable than non-close corporations in the pre-ruling period. Average ROA of close corporations is 6.7% whereas that for non-close corporations is 9.7% in the pre-ruling period. However, the difference in ROA between close and non-close corporations is not statistically significant. In the post-ruling period, the ROA for close corporations is about 12%, whereas that for non-close corporations fell to 6.4%. The difference in ROA between the close and non-close corporations is statistically significant in the post-ruling period. The difference in ROA for non-close corporations from the pre-ruling to the post-ruling period is not statistically significantly different. This bodes well with my tests. The ROA for close and non-close corporations is not significantly different for the sample as a whole. It shows a difference only in the post-period. This implies that prior to the ruling, they had similar ROA numbers. Leverage does not show any statistical difference between close and non-close corporations or between the pre-period and the post-period. Close corporations are also slightly younger than non-close corporations, although the difference is not statistically significant. PPE growth is positive for both close and non-close corporations in both the pre- and post-ruling periods. However, as we can see, the median PPE growth is positive only for close corporations in the post-ruling period. This shows that PPE growth is especially skewed. Most of the firms have a negative PPE growth, implying net depreciation.

In Table 2, I present the Pearson correlation between close corporation dummy variable and the dependent and control variables used in the tests. As expected, size is positively correlated with total revenues as well as with firm age. A possibly unexpected correlation would be between size and ROA. Existing literature would usually find a negative relation between ROA and size. In my sample, the correlation is positive. ROA is calculated as return scaled by assets. For the correlation between size and ROA, the numerator effect dominates the denominator effect. There is no statistically strong correlation between close corporation and any of the variables mentioned here.

In Table 3, I show the number and percentage of observations falling under each 1-digit SIC code for both the close and non-close corporations. As we can see, the industry distribution is very consistent for the close corporations and the non-close corporations' sub-samples. In addition to including industry fixed effects, this consistent distribution should completely remove any unobserved industry effect that might drive my results.

### 5.2: Main results, robustness tests

In this section, I present the empirical results for my main test (equation 1). The results are provided in Table 4, Panel A. My variable of interest is the interaction term *Post* \* *Close* which shows the incremental impact on the ROA of close corporations in the post-ruling period. As we can see, the interaction term is positive and significant, implying that the performance of close corporations improved significantly after the judgment, relative to the performance of non-close private firms. The effect is statistically and economically significant. This, I imply, is evidence of excessive monitoring by minority shareholders prior to the ruling. Prior to the ruling, the presence of the buy-out remedy conferred significant bargaining power to the minority shareholders, which facilitated excessive monitoring of the majority shareholders. However, after the ruling, the effective termination of the grant of the buy-out remedy significantly reduced minority bargaining power and provided more freedom to the majority shareholders to run the firm efficiently. This can be seen via the increase in firm performance. As alluded to earlier, I define excessive monitoring as the pressure or the anticipation of pressure by the majority shareholders, from the minority shareholders to block investments that look risky but are potentially value increasing.

In order to provide credibility to my results, I employ several robustness tests. First, I use two alternate performance measures – return on equity as well as profit margin. The results are provided in panel B of Table 4. As we can see, even with alternate performance measures, the results are still consistent with those shown in Panel A. The use of profit margin also helps allay any concern of possibility of earnings management causing the result. Existing literature has documented that when minority rights or investor protection is limited, there is a higher incidence of earnings management. In the presence of real earnings management, companies could potentially deflate prices in order to boost sales. If that happens, profits might increase and ROA might improve, but profit margin will decline. I find an increase in profit margin which contradicts possibility of real earnings management.

In the second test, I use a dummy variable for increase in each of the three performance measures.<sup>26</sup> The dummy variable is given a value of 1 if firm performance based on the respective measure increases, and 0 otherwise. As we can see in Table 1, the three performance measures – ROA, ROE and profit margin are a bit skewed. To alleviate any concern of bias caused by outliers, I use the dummy variable for increase in performance. This will reduce the effect of outliers. The results are shown in Panel C of Table 4. The results are qualitatively similar to those seen in Panel A of Table 4.

All my evidence so far suggests of excessive monitoring by minority shareholders. The ruling effectively terminated the grant of buy-out remedy to minority shareholders and thereby significantly reduced their bargaining power. Reduction in minority bargaining power also reduced the effectiveness of

<sup>&</sup>lt;sup>26</sup> The regression specification for this is logit and not OLS.

their monitoring and thereby gave more freedom to the majority shareholders to run the firm efficiently. One thing to note is that, I do not observe any actions or monitoring efforts by minority shareholders. It is quite possible that the monitoring efforts remained the same, or even increased after the ruling, but the effectiveness of the monitoring significantly reduced. As a result, I define excessive monitoring not just as actual pressure from minority shareholders but also the anticipation by the majority shareholders, of the pressure from the minority shareholders.

To provide additional credibility to my main result, I also re-run my main test using a matched sample. I match close corporations with non-close corporations using size and year.<sup>27</sup> Although a DID specification should be able to tease out the effect of the judgment on the performance, using matched sample provides further credibility. I also conduct a bootstrap regression with 100 replications and find qualitatively similar results. This provides additional credibility to my results. In addition, I also use 2016 as a pseudo-ruling year in place of the actual ruling year of 2014. I find no significant difference in the firm performance of close and non-close corporations in 2016, which provides further evidence that the impact on firm performance is caused by the ruling.

### 4.3: Analysis on channel of monitoring

I now test for a potential channel of excessive monitoring. What channel causes the improvement in ROA, that is, what is the particular item that was a victim of the excessive monitoring. Burkart et al. (1997) have provided theoretical arguments that excessive monitoring by minority shareholders hinders managerial initiative, especially in terms of investments and R&D. Following Burkart et al. (1997), I test if investments also witness an increase after the ruling. I use two variables as proxies for investments – inventory (scaled by assets) and a PPE increase dummy, equal to 1 if net PPE increased and 0 otherwise.

<sup>&</sup>lt;sup>27</sup> I also match based on size, industry and year, and results are consistent between the two types of matching. The matching is with replacement, such that one firm can get matched to more than 1 close corporation

Use of the dummy is appropriate because as we can see in Table 1, the PPE growth variable is highly skewed. While mean PPE growth is positive on average for close and non-close corporations in the preruling and the post-ruling periods, median PPE growth is negative for non-close corporations in both, the periods, and for close corporations in the post-ruling period. This suggests that more firms had a net decrease in net PPE (depreciation) whereas a few firms had a large increase in net PPE. Using a continuous variable would therefore be biased by the skewness in the sample. The results are presented in Table 6. As we can see, both inventory and PPE witness a moderate increase for close corporations relative to that for non-close firms in the post-ruling period. This finding suggests that excessive monitoring facilitated by the influence of minority shareholders restricted firms' investments. The evidence also suggests that minority shareholders seem to prefer "status quo" to expansion and risk taking. However, I cannot rule out the possibility of other channels of excessive monitoring by minority shareholders.

### 4.4: Additional (cross-sectional) tests

To corroborate the evidence on excessive monitoring by minority shareholders, I conduct two additional tests. In the first test, I draw on existing literature that has documented a relation between firm performance and extent of disciplining of managers. For instance, Kang & Shivdasani (1995) document that the probability of CEO / president turnover significantly increases following a decline in firm performance. In addition, Matsunaga & Park (2006) document that missing quarterly earnings benchmark has an adverse impact on CEO's annual cash bonus. These studies provide evidence on higher monitoring of managers when firm performance is below a certain threshold. In line with these studies, the extent of monitoring by minority shareholders would be even higher (even more excessive) when firm performance is bad. As a result, improvement in performance after the ruling would, all other things held constant, also be higher for poor performers as compared to strong performers. I use change in firm sales in the past two years to distinguish poor performers from strong performers. The results are presented in Table 7 Panel A. As we can see, there is a much stronger effect for poorly performing firms than for strong performers.

In the second test, I partition my sample into two based on firm size. Exiting literature has documented better governance in larger firms. For instance, Armstrong et al. (2014) find a positive association between firm size and the percentage of independent directors. In addition, Schmidt & Fahlenbrach (2017) show a positive relation between firm market cap and number of new independent directors scaled by board size. Generally, larger firms have more resources at the disposal of the shareholders. Larger firms also have more standard practices and procedures set up. This improves the quality of governance in these firms, reducing the need for minority shareholders to closely monitor the managers. At the same time, managers of large firms also have enough resources to prove the credibility of their decisions. In line with the above arguments, larger companies would witness lower monitoring on average, as compared to smaller firms. As a result, improvement in firm performance would be much higher for smaller firms than for larger firms. The results are presented in Table 7 Panel B. I find that the effect is, in fact, much stronger in magnitude and significance for firms smaller than the median sized firm, than it is for firms larger than the median sized firm. All in all, my results so far are a strong evidence of the excessive monitoring by minority shareholders.

An alternative explanation for my results could be related to earnings management. Monitoring by minority was beneficial. After the ruling reduced the minority bargaining power, majority shareholders were more easily able to manipulate earnings. This is consistent with Leuz et al. (2003) who find a higher likelihood of earnings management in firms from countries with poor investor protection. Since the ruling reduced minority rights in general, the improvement in firm performance is a manifestation of earnings management. To resolve this issue, I test if there is evidence of a significant increase in absolute discretionary accruals for close corporations after the ruling. I calculate absolute discretionary accruals are the absolute value of the residuals from the following regression:

$$Accruals_{it} = \alpha_0 + \beta_1 \left(\frac{1}{Assets_{it}}\right) + \beta_2 \Delta Revenue_{it} + \beta_3 \left(\frac{PPE}{Assets_{it}}\right) + \varepsilon_{it}$$

I also follow the Modified Jones model from Dechow et al. (1995) and run the above equation where  $\Delta Revenues_{it}$  is defined as ( $\Delta Revenues_{it} - \Delta Receivables_{it}$ ). In addition, I also follow Kothari et al. (2005) and include lagged ROA in the above equation to calculate Performance Matched Discretionary Accruals.

I follow Srinidhi & Gul (2007) to define accruals as below:

$$Accruals = \frac{(\Delta CA - \Delta Cash) - (\Delta CL - \Delta STDebt)}{Average \ Assets}$$

The results of the earnings management test are provided in Table 8. Column 1 provides results on Jones Model, column 2 presents results using the Modified Jones Model, and column 3 presents results using the Performance Matched Discretionary Accruals as per Kothari et al. (2005). In all the 3 columns, there is no significant increase in discretionary accruals for close corporations relative to non-close corporations after the ruling. This evidence disproves any incremental accruals based earnings management either the ruling. In addition, as alluded to earlier, I do not find evidence of real earnings management either. If there is an increase in real earnings management, I would find a decline in profit margin. Instead, I find an increase in profit margin for close corporations after the ruling. These two pieces of evidence negate the possibility of earnings management driving my results. This evidence proves that the results are in fact driven by the reduced influence of the minority shareholders and the consequent reduction in the effectiveness of their monitoring.

Another alternative explanation could be related to unobserved macroeconomic event. An unobserved macroeconomic event could have impacted close corporations differently than non-close corporations. Although that is highly unlikely, I still try to disprove this hypothesis. First, I controlled for the growth in US and Texas GDP to control for national or state-wide events. Second, I searched for any simultaneous major policy changes, investment proposals or budget allocations in Texas that happened around June 2014. I didn't find any evidence of a significant policy / budget allocation at exactly the same time as the Supreme Court judgment that could have impacted close corporations more or less than non-

close corporations. Third, using firms' zip codes, I plotted each firm on a map of Texas. The map is presented as Figure 1. One could argue that the State government may have passed some policy / rule / budget which impacted a particular region in Texas, and the close corporations may be clustered in that region. As we can see from the map, close corporations are clustered very similar to non-close firms. Fourth, using firms' zip code, I map them to the MSA (Metropolitan Statistical Areas) and include the growth in the GDP of the MSA to which the firm belongs, as an additional control variable. Sine I couldn't map all firms in my sample to an MSA, I did not include this variable as a control variable earlier. The results remain qualitatively similar even after including growth in MSA GDP as an additional control. The evidence refutes the possibility of an unobserved macro event driving my results.

A third explanation for my results could be that minority shareholders did not engage in any active monitoring prior to the ruling. This would align with the lack of active monitoring by minority shareholders, witnessed in public companies. When the ruling removed an important exit mechanism for minority shareholders, they increased their monitoring efforts in order to compensate for the reduction in their rights. The increased monitoring therefore is what caused the improvement in firm performance. I can make three arguments to refute this possibility. First, what incentive did managers have to suddenly pay attention to the increased monitoring, especially when the ability to monitor was reduced? In the post-ruling period, minority shareholders witnessed a significant decline in the influence they had in the firms. So, it is not clear what channel or mechanism they used to effectively monitor the managers. Second, what right or channel or mechanism did the minority shareholders use, to increase their monitoring of the managers? The ruling did not change any other rights or provisions applicable to minority shareholders. So, it is not clear how some other right or channel could have been so used to better monitor the managers and increase firm performance. Third, as I show in my cross-sectional tests, I find a larger improvement in firm performance when the likelihood of over monitoring is high, e.g. poorly performing firms and small firms. If the improvement in firm performance was in fact driven by an increase in effective monitoring then there was no reason to expect a much more pronounced effect for firms with a higher likelihood of over monitoring.

These three arguments refute the possibility that the minority monitoring increased after the ruling, which caused an improvement in firm performance.

### **5: CONCLUSION**

In this paper, I study the role of minority shareholders in private companies. Empirical literature has examined this question mostly from the perspective of public companies. The findings from these studies suggest that minority shareholders, on average, do not engage in active monitoring of the managers. However, it is not clear whether this finding will generalize to private companies. Minority shareholders in private companies differ significantly from those in public companies. They do not have easy access to capital markets or to publicly available financial statements, they exhibit very limited diversification and a resultant risk aversion, owner-manager duality makes it easier to extract private benefits at the expense of minority shareholders, and they generally lack the protection afforded by SEC rules and regulations. These differences are significant enough to drive monitoring incentives for minority shareholders in private companies, differently from what has been documented in the literature. Understanding the role of minority shareholders in private companies is important because private companies make up a large chunk of total registered businesses in the US, account for more than 20 of aggregate pre-tax profits, more than 2/3<sup>rd</sup> of the total employment in the private sector and more than half the aggregate non-residential fixed investment. Compared to their significance to the US economy, relatively little is known about these companies.

I draw on a landmark judgment passed in June 2014 by the Texas Supreme Court, which significantly reduced minority shareholder influence in closely held firms in Texas. I use this ruling as an exogenous shock and assess how the performance of close corporations changed relative to non-close private corporations in Texas, from the pre-ruling to the post-ruling periods. I find that the performance for close corporations improved significantly after the ruling, relative to the performance of non-close private firms. My results are robust to alternate performance measures, matched sample, bootstrapping, unobservable simultaneous trends or other potentially confounding macroeconomic events. This evidence suggests that prior to the ruling minority shareholder influence was net costly. It facilitated ineffective monitoring of the majority shareholders. I also find that one potential channel for over monitoring was firm

investments. I find a moderate increase in firm investments after the ruling. This evidence is in line with existing theoretical arguments that any over monitoring by non-controlling shareholders impacts managerial initiative, especially in undertaking new investments. This evidence provides a potential channel of over monitoring by the minority shareholders. It also hints at potential risk aversion by the minority shareholders, who preferred status quo to risky but potentially value increasing investments. I further find that the impact of the ruling is much stronger for poorly performing firms than for firms with a strong recent performance. I also find that smaller firms experience a much larger increase in firm performance as compared to larger firms in my sample. This evidence corroborates my conclusion about the excessive monitoring role for the minority shareholders.

To the best of my knowledge, this is the first paper to study the role of minority shareholders in private companies. My findings provide insights into the role of minority shareholders in private companies. My results are consistent with existing theoretical literature which has suggested excessive monitoring by minority shareholders, as well as theoretical literature which has suggested the negative investment impact of over monitoring by non-controlling shareholders. My findings also shed light into the literature on public vs private companies. Findings from public companies need not always generalize to a private company setting. In my case, there are inherent differences between minority shareholders in private and public companies, which can incentivize minority shareholders in private companies to behave differently than the minority shareholders in public companies. My results also provide insights on the real effects of monitoring by minority shareholders.

# <u>Appendix 1: Samples of Articles of Incorporation with information on Close</u> <u>Corporation Status:</u>

Please note that I have blanked out company name or shareholder names, for legal reasons.

Example 1: Where information is provided as a separate Article

### ARTICLE FIVE

### Close Corporation

This corporation is a close corporation.

Example 2: Where information is provided in the Statement of Operation as Close Corporation

# STATEMENT OF OPERATION AS CLOSE CORPORATION Section

As of is being operated as a close corporation. The Corporation is being operated and its business and affairs are being conducted under the terms of a shareholders' agreement made pursuant to the Texas Close Corporation Law.

Bv

SHAREHOLDERS:

Example 3: Where information is embedded in the name of the company



Example 4: Where the company has expressly elected not to be a Close Corporation

### ARTICLE IV

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### ELECTION NOT TO BECOME A CLOSE CORPORATION

The Corporation does not elect to become a close corporation under provisions of the Texas Business Corporation Act specifically governing close corporations.

## Appendix 2: Variable Definitions

Variable	Definition
Close	Dummy variable equal to 1 if the firm in my sample is a close corporation
	(closely held corporation), and 0 otherwise
Delta Texas GDP	Change in annual GDP of Texas, obtained from Bureau of Economic
	Analysis
Delta US GDP	Change in annual US GDP, obtained from Bureau of Economic Analysis
Firm Age	Number of years from the founding year till the current year.
Industry	Fama & French 12-industry classification
Leverage	Total debt divided by total assets
MSA	Metropolitan Statistical Area, to which each firm belongs to
Post	The period of one year after the ruling by the Texas Supreme Court
PPE Growth	Change in the net PPE of a firm in % terms
Profit Margin	Net Income divided by sales
Return on assets	Net income divided by average assets
Return on equity	Net income divided by equity
Size	Natural logarithm of total assets

# <u>Appendix 3: Differences between minority shareholders in private and public</u> <u>companies</u>

- <u>Ease of sale of the shares</u>: While minority shareholders in public companies can buy and sell shares in a competitive market, minority shareholders in private companies do not have that option.<sup>28</sup> Existing literature has documented a significant relation between liquidity and active shareholder monitoring.<sup>29</sup> Consistent with this evidence, a difference in liquidity is bound to alter monitoring by minority shareholders in private companies.
- 2. <u>Average minority stake</u>: Private companies have much fewer shareholders than do public companies. Average minority stake in private companies thereby, is usually higher than in public companies. Ang et al. (2000) find that monitoring by nonmanaging shareholders is decreasing in their individual ownership and in the number of nonmanaging shareholders. Since private firms have fewer shareholders and higher shareholding on average, one expects higher monitoring efforts by minority shareholders in private companies.
- 3. Proportion of wealth invested in the minority stake: Minority shareholders in public companies are usually well diversified in terms of their personal wealth, whereas the minority stake in private companies forms a much larger proportion of shareholders' personal wealth (Moskowitz & Vissing-Jorgensen, 2002). Ekholm and Maury (2014) find that investors have particularly strong incentives to monitor a stock that occupies a large part of their overall portfolio. This difference could further influence the extent of monitoring by minority shareholders in private companies.
- 4. <u>Access to documents and filings</u>: For instance, section 6103 (e) of the Internal Revenue Code allows shareholders holding a minimum 1% stake to inspect federal tax returns of the company. While holding

<sup>&</sup>lt;sup>28</sup> Sale of minority shares in private companies usually starts with offering the shares to other shareholders and, if required, scout for an outside buyer. This process would take much longer than selling shares in the open market.
<sup>29</sup> Literature has identified two forms of shareholder oversight – voice and exit. Voice implies active monitoring (voting, proxy battles, etc). Exit is sale of shares or threat thereof. Edmans (2014) and Edmans & Holderness (2017) provide excellent reviews.

a 1% stake is quite common in private companies, it is not that common in public companies.<sup>30</sup> Similar rules about access to documents and filings, based on a minimum shareholding, are available in State Business Codes too.

5. <u>Alternative governance mechanisms</u>: Public companies are governed by SEC rules and regulations. SEC rules provide monitoring tools, which are generally nonexistent in private companies<sup>31</sup>. In addition, public companies are governed by mandatory audits of their financial statements, not required for private companies. Absence of an important oversight institution is bound to influence the behavior of minority shareholders in private companies.

<sup>&</sup>lt;sup>30</sup> To put this in perspective, Bill Gates holds ~10% stake in Microsoft, Jeff Bezos holds less than 15% stake in Amazon, average stake in public companies held by public pension funds is less than 1%. More recently, Elliott Management, the largest activist fund in the world, disclosed a \$3.2 bn stake in AT&T, ~ 1.2% shareholding. <sup>31</sup> One exception to this that I am aware of is that minority shareholders in private companies can bring a rule 10b-5 suit against the majority shareholders. <u>https://www.wilmerhale.com/en/insights/publications/sec-reaffirms-the-</u>

broad-reach-of-rule-10b-5-to-private-companies-december-22-2011.

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Figure 1: Geographical locations of my sample firms

The above figure provides a geographical mapping of the sample firms. I plot all my sample firms on a map of Texas (bold black line shows the Texas boundary). I use the zip code from the firm's registered address available either from the Articles of Incorporation or Capital IQ database. The green dot (with a vertical line) represents close corporations, whereas the red dot (no lines) represents non-close firms.



# The above figure shows the steps involved in identifying firms, from my sample, as close corporations or not. AOI stands for Articles of Incorporation

Close corp clause refers to a clause / article in the AOI specifying the company's close corporation status Statement of operation as a close corp is a statement filed by a company in lieu of the clause in the AOI

### Figure 2: A flowchart of steps to identify close corporations

	Close corporations					Non-	close cor	porations		
Variable	Ν	Mean	Med	Q1	Q3	Ν	Mean	Med	Q1	Q3
<b>Pre-Period</b>										
Size	38	1.307	1.236	0.633	1.902	166	1.419	1.231	0.364	2.031
Revenues	38	11.807	4.978	0.932	13.771	166	19.087	3.190	0.410	18.207
ROA	38	0.067	0.045	0.016	0.102	166	0.097	0.051	0.006	0.182
ROE	38	0.138	0.075	0.026	0.238	166	0.179	0.067	0.010	0.293
Leverage	38	0.287	0.208	0.025	0.499	166	0.276	0.171	0.034	0.447
Firm Age	38	21	15	10	28	166	24	23	13	33
PPE Growth	38	0.019	-0.062	-0.327	-0.010	166	0.237	-0.049	-0.443	0.237
Post Period										
Size	38	1.302	1.209	0.753	1.907	166	1.436	1.262	0.315	2.118
Revenues	38	12.625	4.951	1.080	17.115	166	18.105	3.457	0.355	16.711
ROA	38	0.120	0.067	0.023	0.248	166	0.064	0.038	-0.0201	0.141
ROE	38	0.214	0.112	0.035	0.325	166	0.116	0.061	-0.031	0.192
Leverage	38	0.307	0.231	0.039	0.612	166	0.276	0.163	0.033	0.453
Firm Age	38	22	16	11	29	166	25	24	14	34
PPE Growth	38	0.124	0.002	-0.152	0.159	166	0.109	-0.034	-0.106	0.116

Table 1: Descriptive Statistics

	Close	Size	Revenues	ROA	ROE	Leverage	Firm Age	PPE Growth
Close	1.000							
Size	-0.044	1.000						
Revenues	-0.065	0.683	1.000					
ROA	0.036	0.104	0.119	1.000				
ROE	0.039	0.231	0.264	0.686	1.000			
Leverage	0.028	0.320	0.391	0.005	0.230	1.000		
Firm Age	-0.073	0.135	0.141	-0.056	-0.118	-0.080	1.000	
<b>PPE Growth</b>	-0.039	0.175	0.106	0.088	0.118	0.088	0.072	1.000

**Table 2: Correlation Matrix** 

The above table presents the pairwise correlations between close corporations and key variables. Bolded figures indicate that the correlation between the two variables is significant at the 10% level. All continuous variables are winsorized at the 2% and 98% levels. Variables are defined in Appendix 2.

SIC 1	Industry Description	Number of Observations			
Digit		Closely	% of sub-	Non-Closely	% of sub-
Code		Held	sample	held	sample
1	Mining & Construction	30	39%	128	41%
2	Manufacturing – Textiles, Chemicals,	6	8%	22	7%
	Tobacco & Petroleum Products				
3	Manufacturing – Stone, Clay, Leather,	6	8%	29	9%
	Glass and electronic equipment				
4	Transportation & Utilities	2	3%	22	7%
5	Retail Trade	26	34%	106	34%
7	Services – hospitality, automotive,	6	8%	6	2%
	motion pictures and other services				

### Table 3: Industry distribution of close and non-close corporations

The above table shows the number of observations in each 1-digit SIC code for closely held and non-closely held firms, as well as the percentage distribution of observations within that sub-sample. Industry description is taken from the website of OSHA (Office of Safety and Health Administration) of the US Department of Labor.

### Table 4: Impact of the ruling on firm performance

### Panel A: Use of ROA as the performance measure.

Regressionequation:Firm Performance\_{it} =  $\alpha_0 + \beta_1 Close + \beta_2 Post + \beta_3 Close * Post + \beta_4 Size_{it} + \beta_5 Performance_{it-1} + \beta_6 Firm Age + \beta_7 Leverage_{it} + \beta_8 Ind Profit Margin + \beta_9 \Delta US GDP_t + \beta_{10} \Delta TX GDP_t + \Sigma Industry FE + \varepsilon_{it}$ 

	ROA	ROA
Post	-0.031**	-0.034
	(0.014)	(0.024)
Close	-0.023	-0.009
	(0.023)	(0.021)
Post * Close	0.084***	0.089***
	(0.031)	(0.034)
Size		0.017*
		(0.009)
Change in PPE		0.002
		(0.001)
Firm Age		-0.001
		(0.001)
Leverage		0.009
		(0.034)
Lag ROA		0.421***
		(0.080)
Industry Avg Pr Margin		0.153
		(0.678)
US GDP growth		0.05151*
		(0.0273)
Texas GDP growth		0.0107**
_		(0.004)
Obs.	389	389
Industry Fixed Effects	YES	YES
R-squared	0.069	0.298

	Profit Margin	ROE
Post	-0.051***	0.018
	(0.024)	(0.038)
Close	-0.001	-0.025
	(0.019)	(0.049)
Post * Close	0.075***	0.124**
	(0.026)	(0.053)
Obs.	389	389
Control Variables	Included	Included
Industry Fixed Effects	YES	YES
R-squared	0.246	0.220

Panel B: Use of ROE and profit margin as alternate performance measures

### Panel C: Dummy variable for increase in performance

	ROA	ROE	Profit Margin
Post	-0.162	-0.146	-0.182
	(0.446)	(0.452)	(0.470)
Close	0.164	0.191	-0.051
	(0.547)	(0.510)	(0.562)
Post * Close	0.185**	0.189***	0.182**
	(0.076)	(0.061)	(0.083)
Obs.	380	384	377
Control Variables	Included	Included	Included
Industry Fixed Effects	YES	YES	YES
Pseudo-R squared	0.234	0.187	0.233

The above table presents results of the difference-in-difference test of the effect of the Texas ruling on performance of close corporations. Panel A shows results using ROA as the main performance measure. Panel B shows results using alternate performance measures – ROE and profit margin. Panel C uses a dummy variable for increase in the three performance measures – ROA, ROE and profit margin. Use of dummy variable for increase reduces the effect of outliers. Panels A, B & C do not report constant and Panels B & C do not report control variables for brevity. In Panels A, B & C, Post is a dummy variable equal to 1 for the period after the ruling, and 0 otherwise; Close is a dummy variable equal to 1 for close corporations and 0 otherwise; Post \* Close captures the impact on performance of close corporations after the ruling. Variables are defined in Appendix 2. All variables are winsorized at 2% and 98% levels. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 level for the two-tailed test of coefficients, respectively. Standard errors are presented in parentheses

Variables	ROA	ROE	Profit
			Margin
Post	-0.075	-0.053	-0.047
	(0.048)	(0.075)	(0.042)
Close	-0.043	-0.018	-0.055*
	(0.035)	(0.072)	(0.030)
Post * Close	0.123***	0.166**	0.112***
	(0.043)	(0.078)	(0.041)
Size	0.030*	0.061	0.009
	(0.017)	(0.038)	(0.013)
PPE Change	0.005	0.026	-0.009
-	(0.007)	(0.018)	(0.006)
Firm Age	-0.001*	-0.003**	-0.000
-	(0.001)	(0.001)	(0.001)
Leverage	-0.114***	-0.005	-0.115***
-	(0.043)	(0.119)	(0.035)
Lag Performance	0.304**	0.393***	0.559***
-	(0.150)	(0.097)	(0.160)
Industry Avg Profit Margin	0.895	1.956	0.380
	(0.562)	(1.590)	(0.685)
US GDP growth	3.540	0.647	2.703
-	(4.372)	(7.253)	(4.112)
Texas GDP growth	0.895	1.737	1.280
-	(1.036)	(1.524)	(1.168)
Obs.	131	131	129
Industry Fixed Effects	YES	YES	YES
R-squared	0.406	0.329	0.389

Table 5: Matched sample analysis

The above table presents results of the difference-in-difference test of the effect of the Texas ruling on firm performance in a sample of firms matched on year and size. Firm performance is measured as ROA, ROE and profit margin. The constant and control variables are not reported for brevity. Post is a dummy variable equal to 1 for the period after the ruling, and 0 otherwise; Close is a dummy variable equal to 1 for close corporations and 0 otherwise; Post \* Close captures the impact on performance of close corporations after the ruling. Variables are defined in Appendix 2. All variables are winsorized at 2% and 98% levels. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 level for the two-tailed test of coefficients, respectively. Standard errors are presented in parentheses

	Inventory to Assets	PPE Increase
		Dummy
Post	0.030	0.298
	(0.022)	(0.350)
Close	0.039	-0.532
	(0.030)	(0.404)
Post * Close	0.022*	0.102*
	(0.012)	(0.055)
Obs.	389	389
Control Variables	Included	Included
Industry Fixed Effects	YES	YES
R-squared	0.241	.200

### **Table 6: Investment Analysis**

The above table presents the results of regression equation (1) except that the dependent variables are inventory (scaled by assets) and a PPE increase dummy. For brevity, I have not shown the control variables, although the effect is the same as for Table 3, Panel A. All other variable characteristics remain the same as in Table 3 Panel A.

Table /:	l'ests
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	Poor Performance	Strong Performance
Post	-0.055	0.022
	(0.115)	(0.032)
Close	-0.106**	-0.008
	(0.044)	(0.037)
Post * Close	0.137**	0.039*
	(0.068)	(0.022)
Obs.	31	120
Control Variables	Included	Included
Industry Fixed Effects	YES	YES
R-squared	0.437	0.598

### Panel A: Split by performance for the previous two years.

D		D	0	1.4	1	•
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	Smaller Firms	Larger Firms
Post	-0.075*	0.012
	(0.042)	(0.022)
Close	-0.026	0.006
	(0.033)	(0.029)
Post * Close	0.133***	0.042*
	(0.046)	(0.025)
Obs.	194	195
Control variables	Included	Included
Industry Fixed Effects	YES	YES
R-squared	0.256	0.543

The above table presents results of the difference-in-difference test of the effect of the Texas ruling on performance of close corporations. Firm performance is measured as return on assets. In Panel A, I split the sample into two sub-samples based on whether previous two years' sales decreased (poor performance) or increased (strong performance). In Panel B, I split the sample into two sub-samples based on the whether the firm is smaller than or larger than the median sized firm (smaller firms and larger firms respectively). The constant and control variables are not reported for brevity. I report standard errors in parentheses. Post is a dummy variable equal to 1 for the period after the ruling, and 0 otherwise; Close is a dummy variable equal to 1 for close corporations and 0 otherwise; Post \* Close captures the impact on performance of close corporations after the ruling. Variables are defined in Appendix 2. All variables are winsorized at 2% and 98% levels. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 level for the two-tailed test of coefficients, respectively.

	Discretionar	Discretionary Accruals calculated using			
	Jones Model	Modified	Performance		
		Jones Model	Matching		
	(1)	(2)	(3)		
Intercept	0.477***	0.509***	0.526***		
_	(0.112)	(0.112)	(0.118)		
Post	-0.051**	-0.051**	-0.019		
	(0.023)	(0.022)	(0.019)		
Close	-0.003	-0.006	-0.014		
	(0.033)	(0.033)	(0.033)		
Post * Close	0.021	0.019	0.012		
	(0.038)	(0.037)	(0.037)		
Size	-0.025***	-0.026***	-0.019**		
	(0.008)	(0.007)	(0.007)		
Growth in PPE	-0.000	0.000	-0.000		
	(0.001)	(0.001)	(0.001)		
Firm Age	-0.000	0.000	-0.000		
	(0.001)	(0.001)	(0.001)		
Leverage	0.071**	0.073**	0.036		
	(0.034)	(0.034)	(0.033)		
Lag ROA	0.251***	0.256***			
	(0.080)	(0.080)			
Avg Ind Profit Margin	-0.211	-0.308	-0.271		
	(0.752)	(0.737)	(0.730)		
Growth in US GDP	-0.1054***	-0.1106***	-0.1260***		
	(0.029)	(0.029)	(0.032)		
Growth in Texas GDP	0.258	0.216	0.824		
	(0.505)	(0.502)	(0.521)		
Obs	(0.393)	(0.392)	(0.331)		
Judustry Fixed Effects	VES	VES	VES		
muusu y Fixed Effects	115	115	1 1.5		
R-squared	0.208	0.221	0.171		
1					

### **Table 8: Earnings Management Test**

The above table presents the results of the difference-in-difference tests of earnings management in column 1 and profit margin (net income divided by sales) in column 2. The first column shows the effect of the Texas ruling on discretionary accruals for close corporations. The second column shows the impact of the Texas ruling on profit margin of close corporations. The constant and control variables are not shown for brevity. All variables are winsorized at the 2% and 98% levels. Variables are defined in Appendix 2. Standard errors are provided in the parentheses. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 level for the two-tailed test of coefficients, respectively