The Dual Class Stock Structure in the United States: A New Dataset and An Examination of Firms who Leave the Structure

by

Jason W. Howell

(Under the direction of Jeffry M. Netter)

Abstract

In the first chapter, I review the history of the dual class structure in the United States and its continued survival amidst changes in the takeover environment. The second chapter reviews the theoretical pros and cons of the dual class structure and also summarizes the extant empirical literature. In the third chapter, I outline the various capitalization and implementation methods used by dual class firms and briefly describe alternative control mechanisms. In the fourth chapter, I examine the prior methods used to identify dual class firms and point out the sample selection problems with each. In addition, I introduce the largest sample of United States dual class firms, consisting of 1,103 firms and 8,265 firm years over the 20 year period 1988-2007. In the fifth chapter, I examine the firms who voluntarily unify their share classes in order to determine why blockholders willingly give up such large stakes in voting power. I find 70% of unifying firms specifically state "increase liquidity" as a primary reason for unifying their share classes. Also, I find blockholders maintain or slightly increase their voting power prior to the unification, but then dramatically decrease their voting power in the three years after the unification. I find two-thirds of the drop in voting power is attributable to reductions in blockholder holdings rather than share dilutions. In addition, I find over 40% of blockholders completely exit the firm within three years. Based on the empirical evidence, I conclude blockholders are willing to lose significant portions of

voting power in order to increase their own personal liquidity. In the sixth chapter, I examine the effects of the unification on the 95 unifying firms. I find a positive and significant abnormal return for restricted voting shareholders; however, the superior voting shares reaction is positive and insignificant. With both classes combined, I find a significant increase of 3.55% in market capitalization during the announcement. After the announcement, I find there is no significant increase in firm value as measured by Tobin's q and no increase in firm operating performance. However, I do find a significant increase in leverage, equity issuance, and share liquidity after the unification.

INDEX WORDS: Corporate Governance, One-Share/One-Vote, Dual-Class, Blockholder Ownership, Unifications, Private Benefits of Control

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Dedication

To my wonderful wife Katherine, without your endless love and support this would never have been possible.

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Dual Class Over Time

1.1 Introduction

In a typical public corporation, all shareholders are provided identical voting and cash flow rights. For example, each holder of Microsoft Corporation's stock is allowed one vote for each share she owns. In addition, each shareholder has residual cash flow rights to the firm and can receive dividends. As such, shareholders are separated by the number of shares each owns; however, the proportion of voting and cash flow rights is always proportional to the amount invested in the firm. A shareholder who buys 10,000 shares of Microsoft stock has invested 10 times more capital in the firm than the individual who purchases only 1,000 shares. Since each share has identical voting and cash flow rights, the holder of 10,000 shares also has 10 times more voting power.

This is not the case in a firm with two classes of stock. In a dual class stock firm, the investor who purchases 10,000 shares may have the same voting rights as the holder of only 1,000 shares. Voting and cash flow rights can be different based on the class of shares held. For example, Google has two classes of stock. Class A shareholders are eligible to vote in all corporate matters; however, they only have one vote per share, whereas class B shareholders have ten votes per share. This allows the holders of class B shares to have control of the firm while holding a much smaller cash flow stake. In the case of Google, co-founders Sergey Brin and Larry Page hold zero class A stock and 77.3% of class B shares. So although they only own an 18.3% cash flow stake, their class B holdings give them control of the firm with a 58.3% voting stake.[1]

[1]Google, Inc., March 24, 2009 Form DEF 14A, via Edgar.

Because of the structure's separation of economic interests and voting rights, the dual class structure has consistently garnered criticism. Critics have decried its departure from one-share, one-vote as unethical and inherently anti-shareholder. Despite the criticism, shareholders continue to purchase dual class stock as they have for the past one hundred years. In this chapter, I document the history and criticisms of the dual class structure in the United States and posit that's its continued survival is evidence that this intermediate organizational firm is beneficial and should not be prohibited.

1.2 Early History (1898-1926)

The unbundling of cash flow and voting rights dates back to the turn of the twentieth century. Up until then, issues of both common and preferred stock were given full voting rights. It was not until 1898 when the International Silver Company authorized twenty million shares that non-voting stock was first issued. The authorization was for nine million preferred and eleven million non-voting common shares. Later in 1902, the common stock was given the right to vote; however, it was given only one vote for every two shares owned (Stevens 1926). The non-voting stock issued by International Silver Company opened the door for firms to begin unbundling cash flow and voting rights between common and preferred stock.

In the 1920s, firms began to issue two classes of common stock giving only one class the right to vote. As an example, in 1925 Dodge Brothers issued 1.5 million shares of class A non-voting stock, while the control of the firm was held by the investment bank of Dillon, Read, and Company who owned 250,001 shares of class B voting stock. The public's purchase of the class A stock, bonds, and preferred stock totalled $130 million while the investment bank's controlling investment was a mere $2.25 million (Seligman 1986). By the year 1926, at least 183 other firms had issued both class A and class B stock (Dewing 1953).

Stock issues such as those by Dodge Brothers, Industrial Rayon Corporation, A&W Root Beer, and Fox Theaters led Harvard University Professor William Ripley to speak publicly

about "the years of the Split Common Stock and Vanishing Stockholder."[2] His initial address in October 1925 to the Academy of Political Science in New York City led to articles in the *New York Times*, *Nation*, *Atlantic Monthly*, and to his book, *Main Street and Wall Street*, published in 1927. Ripley's railings against these "management shares" are summarized in the following quote: "Yet the plan [dual class system] bears every appearance of a bald and outrageous theft of the last title of responsibility for management of the actual owners by those who are setting up these latest financial erections. Isn't it the prettiest case ever known of having a cake and eating it too?" (Ripley 1927).

Along with Mr. Ripley's public speaking, scholarly articles were written by Adolf Berle (Berle 1926) and W.H.S. Stevens (Stevens 1926) addressing the one-share, one-vote controversy. Mr. Ripley's condemnation of the structure received widespread attention and the public outcry let to the first disapproval by the New York Stock Exchange (NYSE) to an issue of non-voting common stock on January 18, 1926. After the disapproval the NYSE issued the following statement: "Without at this time attempting to formulate a definite policy...the Committee...will give careful thought to the matter of voting control." The outcry also led President Calvin Coolidge to invite Ripley to personally discuss the issue. The February 17, 1926 *New York Times* headline read "President studies non-voting stocks: He confers with professor Ripley to learn if federal action is advisable."

1.3 NYSE Prohibition Period (1926-1985)

After the first disapproval and statement in 1926, the NYSE prohibited the issuance of non-voting securities, although they did not formally announce the prohibition until 1940. Between 1926 and 1985, the NYSE stock exchange kept to its prohibition with a few exceptions like Ford Motor Company. Ford Motor Company was able to get around the prohibition by issuing a class with inferior voting rights rather than no voting rights. The firm's class B stock, which was held by the Ford family kept 40% voting power, while the class A stock

[2]Ripley, "From Main Street to Wall Street," 87 *Atlantic Monthly* 94 (1926).

was given the remaining 60%. This allowed the family to go public while retaining control with only 5.1% equity. Similar proportional voting structures were used in other firms such as J.M. Smucker and American Family. Due to the strict adherence to their policy, Seligman (1988) found only 10 NYSE firms with dual class share structures in 1985.

Other exchanges were not as strict with their voting policies. The American Stock Exchange (AMEX) did not implement a non-voting prohibition until 1972. In 1976, Wang Laboratories was unable to list on the New York Stock Exchange due to its proposed dual classcapitalization; however, the American Stock Exchange reviewed the application and allowed the listing. This led to the AMEX issuing a policy statement on dual class issues (disproportionate voting rights). The key points of the statement were: 1) the limited voting class must have the ability to elect at least 25% of the board, 2) the voting ratio should not be greater than 10 to 1 in favor of the superior voting class, 3) no additional stock could be issued which diluted the limited voting shareholders stake, 4) superior voting rights would be lost if the number of shares fell below a certain percentage, and 5) dividend preference was strongly recommended for limited voting stock. The policy became known as the "Wang formula." Due to their relaxed policies on the dual class structure, Seligman (1988) estimated approximately 7% (60 of 785) AMEX firms were dual-class in 1985, up from 37 in 1976.[3]

1.4 Hostile Takeovers and SEC Rule 19C-4 (1985-1994)

During the 1980s, the dual class structure became a primary mechanism to prevent hostile takeover bids. Since most firms had only a single class of stock, they implemented the dual class structure through various recapitalization techniques. As an example, General Cinema Corporation performed a dual class recapitalization by offering to exchange each common share for a new class B share with ten votes each. The new class B share was not publicly traded and received lower dividends than the common stock. In addition, the class B shares were convertible to common shares but could only be transferred or sold among family

[3]Seligman (1988) also found 110 of 4101 NASDAQ companies were dual-class in 1985.

entities. As another condition, the class B shares only received 10 votes each if more than 15% of the company's common stock was held by shareholders working in concert and if anyone other than board members were to nominate directors.[4] While the recapitalization required shareholder approval, the company president's family owned approximately 29% of the common shares and the measure passed.[5] With the structure setup in this manner, the minority shareholders found it in their best interest to remain in the common share so they could receive the higher dividend and maintain liquidity. This allowed the family to use the new capitalization as an effective anti-takeover device.

In order to remain competitive with the American Stock Exchange (AMEX) and the National Association of Securities Dealers (NASD) (who had no such restriction), an NYSE subcommittee submitted a proposal in January 1985 to relax their voting policies and allow securities with disparate voting rights to be listed as long as they met certain conditions. Under pressure from Congress, all three exchanges then worked on a uniform policy. After these negotiations broke down, the NYSE issued a new standard "requiring a company proposing to recapitalize to obtain approval of the plan by a majority of its publicly held shares, as well as a majority of its independent directors."[6]

With all three exchanges now permitting dual-class structures, the structure's use increased. With the relaxed policies and increased use, a new call came from Congress for regulation against the implementation of the structures. In a letter to the SEC chairman, Representative John D. Dingell, the chairman of the House Energy and Commerce Committee, stated the "commission has the authority to mandate a one-share, one-vote rule" and that "it is time to move forward with sound and appropriate safeguards."[7] In his law review article on dual class structure, Seligman (1986) states "disproportionate voting stock is the

[4]"General Cinema board seeks new stock class to discourage suitors", *Wall Street Journal*, November 14, 1984.

[5]"General Cinema Corp. begins exchange offer for new class B stock", *Wall Street Journal*, January 2, 1985.

[6]"Big board ends equal vote rule", *New York Times*, July 4, 1986.

[7]"Unequal stock class opposed", *New York Times*, May 24, 1988.

corporate law equivalent to price-fixing" and that "the SEC or Congress should proscribe dual class capitalizations for the largest business corporations."

As the discussion moved forward another view emerged. Rather than prohibit dual class structures all together, the focus became dual class recapitalizations where existing shareholders are effectively coerced into giving up their voting rights. In a *New York Times* article, Steven Greenhouse asks "If management controls 55% percent of the stock and pushes through unequal voting, is that fair to other stockholders?"[8] Following this reasoning, Gilson (1987) examines the dual class structure and leveraged buyouts as substitutes and concludes "a resolution-prohibition of dual class transactions but not dual class capital structures-becomes apparent. That resolution would leave intact the benefits of the dual class capital structure, while still preventing any dominant shareholder group from using dual class transactions [recapitalizations] to coerce a firm's public shareholders." This new approach led to the proposal of rule 19C-4 by the SEC.

On July 7, 1988, the Securities and Exchange Commission voted 4 to 1 to implement rule 19C-4 (see Appendix A for the full text of rule 19C-4). Under the rule, the SEC prohibited self-regulatory organizations from listing and trading the stocks of any company that issued new shares carrying more than one vote per share, but it allowed companies to issue shares with less than one vote per share and permitted those with unequal voting rights to still be traded. As soon as the new rule was passed, questions were raised as to whether the SEC had the legal authority to enforce such policies on self regulating organizations such as the NYSE and NASD. On June 12, 1990, a three judge panel of the United States Court of Appeals for the District of Columbia Circuit unanimously ruled the SEC had exceeded its authority.

Despite the court's rejection of 19C-4, the NASD proceeded with implementing a 19C-4 type rule allowing firms to introduce inferior voting shares during initial public offerings but barring firms from reducing existing shareholders' voting rights.[9] The NASD joined the NYSE who had already voluntarily issued a policy implementing the 19C-4 rule. In June

[8]"Unequal votings rights in stock", *New York Times*, March 19, 1985.

[9]"NASD plans a one-share, one-vote rule", *Wall Street Journal*, June 21, 1990.

1991, the AMEX moved to restrict its policy similar to the 19C-4 rule, with the exception that inferior voting shares could be created if approved by two-thirds of the stockholders and a majority of non-insiders.[10]

1.5 Modern Times (1994-Present)

In December 1993, SEC Chairman Arthur Levitt Jr. suggested all U.S. markets implement a uniform policy regarding voting rights.[11] In line with Mr. Levitt's suggestion, the AMEX and NASD shortly thereafter approved a uniform policy which was followed by the NYSE in May of 1994. The voting policy (see Appendix B for full text) allows companies to be listed who have dual classes of stock and sets no restrictions on voting rights for new public offerings of stock. However, it bars companies from taking steps to reduce their existing shareholders' voting rights through such actions as "the adoption of time phased voting plans, the adoption of capped voting rights plans, the issuance of super voting stock, or the issuance of stock with voting rights less than the per share voting rights of the existing common stock through an exchange offer."

Despite the exchanges developing a uniform policy and preventing coercion through dual class recapitalizations, the structure still receives criticism. The critics call for a one-share, one vote standard and point to the anti-takeover property of the structure, the risk of entrenchment, and potential expropriation of minority shareholders. They contend insiders with control will take on bad projects, reject sound takeover offers, or just not run the firm effectively. In 2004 when Google went public with a dual class structure , Bob Monks, shareholder activist, stated "It is stupid to have two classes of stock. I think they have been badly advised."[12] Charles Elson, director of the John L. Weinberg Center for corporate governance

[10]"AMEX files plan for holders' votes on classes of stock", emphWall Street Journal, June 13, 1991.

[11]"NYSE approves shareholder voting rights policy", *Dow Jones News Service*, May 5, 1994.

[12]Foremski, London, and Waters, "Google and the establishment set to clash", *Financial Times*, May 1, 2004.

at the University of Delaware, added "I think it is a terrible mistake. Any time you separate ownership from control there is trouble down the line."[13]

In recent years, institutions, unions, and blockholders have led shareholder proposals to eliminate the structure and move to one vote per share. For example, in 2007 John Chevedden led a proposal to remove the dual class structure at Ford Motor Company. In the proposal he states "Dual class stock companies like Ford take shareholder money but do not let shareholders have an equal voice in their company's management. Without a voice, shareholders cannot hold management accountable. Shareholders who finance our company should be able to hold our management accountable."[14] The initiative was opposed by the board, yet garnered support from 27% of shareholders.[15] Similar proposals have been rejected at firms such as the New York Times, Google, Emmis, and Sotheby's.

1.6 Intermediate Organizational Form

Ever since the original implementation of the dual class structure, the structure has received criticism from both academics and shareholder activist. The critics say it is unethical to stray from a one-share, one-vote structure. While it is true the one-share, one-one vote structure leads to equality among all investors based on their level of holdings, the fact is, organizations are complex. What works best for one firm, is not in the best interest of another. As DeAngelo and DeAngelo (1985) said "dual class firms may be best viewed as an intermediate organizational form which fits somewhere between the polar cases of the dispersed-ownership public corporation and the closely-held firm." Just like some firms choose to remain privately held, while others decide it is best to go public, some firms decide it is in their best interests to access the equity markets while retaining control of their corporation through the dual class structure. For example, in their original S-1 filing with the Securities

[13]Foremski, London, and Waters, "Google and the establishment set to clash", *Financial Times*, May 1, 2004.

[14]Ford Motor Company, April 5, 2007 Form DEF 14A, via Edgar.

[15]Stoll, "Ford shareholders take swipe at family voting power", *Dow Jones Newswires*, May 10, 2007.

and Exchange Commission, Google stated "As a public company, we believe a dual class voting structure will enable us to retain many of the positive aspects of being private."[16]

This intermediate organizational form allows investors the opportunity to invest in companies which they would not have been able to if the firm had not been able to chose the dual class structure. Take for example, the 2004 IPO of Google, many investors have made tremendous amounts of money investing in the firm. Do the proponents of the one-vote, one-share policy implicitly assume Google's founders would have taken the company public if they did not have the ability to use a dual class structure?

Also, the dual class structure allows investors the opportunity to invest in companies in which they desire the controlling party to remain in power. Take for example, Ford Motor Company, through their class B shares the Ford family maintains a 40% voting stake in the firm. To some investors and car buyers, it is important for them to know that the Ford family's reputation is at stake. Alchian and Demsetz (1972) state "in fact, we invest in some ventures in the hope that no other stockholders will be so 'foolish' as to try to toss out the incumbent management. We want him to have the power to stay in office, and for the prospect of sharing in his fortunes we buy nonvoting common stock."

1.7 Survival of the Dual Class Structure

The resurgence of the dual class structure during the hostile takeover period in the 1980s, has led to an over emphasis on the structure's anti-takeover characteristic. While it is true the structure can be an effective anti-takeover device, the structure continues to be widely used in the United States after the decline in hostile takeovers and the "just say no" ruling by the Delaware Supreme Court in the case of *Paramount Communications Inc. v. Time Inc.*[17] In addition the structure continues to be used after the increased usage of other anti-takeover devices such as poison pills and staggered boards in the 1990s. In summary, if the structure

[16]Original S-1 Filing by Google, Inc. dated April 29, 2004.

[17]See *Paramount Communications, Inc. v. Time Inc.*, 571 A.2d 1140-1155 (Del. 1990).

is solely used as an anti-takeover device we would expect to see a decrease in its use since the decline in hostile takeover and the change in takeover defense tactics in the 1990s (Ryngaert and Scholten (2010)); however, this is not the case.

Organizational forms exist as long as they are useful. If an organizational form outlives its usefulness it will fade away. Take for example, tracking stocks. Tracking stocks are a type of common stock that tracks the financial performance of a business unit or operating division of a company. They typically have limited or no voting rights and their dividends are based on the performance of the specific unit tracked. Many firms issued them during the internet craze to take advantage of the excitement for dot com stocks. However, now that the internet craze has decreased tracking stocks have all but faded away. As of 2004, only five tracking stocks were still trading, and there have been 38 issued since 1984.[18] On the other hand, the dual class structure has remained a viable organizational form after the demise of the hostile takeover market in the 1980s because it has benefits beyond its anti-takeover property. DeAngelo and DeAngelo (1985) state it like this "if dual class structures are inefficient organizational forms, one would expect their importance to decline over time as their deficiencies become more apparent." Over two decades later, the structure continues to be a widely used organizational form.

1.8 Conclusion

Although the structure has constantly received criticism since the 1920s and faced changing regulations over the years, the dual class structure has survived and has proven to be a viable organizational form. Despite the decline in the use of hostile takeovers and a change in takeover defense regulation, firms continue to choose the dual class share structure to the chagrin of those who call for a one-share, one-vote standard.

[18] "Remember tracking stocks? Most are history", USA Today, September 20, 2004.

Chapter 2

Theory And Empirical Research

2.1 Introduction

In the United States, firms typically have a single class of common stock. An owner of this common stock holds a right to a proportion of the residual cash flows of the firm based on his/her proportion of ownership. Since the stockholder has a right to these residual cash flows, he/she has incentive to ensure there will in fact be residual cash flows. In other words, it is in the stockholder's best interest to ensure the firm satisfies obligations to stakeholders and provides a desirable product, while at the same time minimizing cost and thus maximizing residual cash flows. It is for this reason that the residual claimants are giving the ability to monitor the firm through the use of voting (Alchian and Demsetz 1972).

Under a single class share structure, the residual claimants or stockholders enjoy the right to cash flows and voting. However, in a dual class share structure, voting rights and cash flow rights are segregated based on the class of share owned by the stockholder. This generally leads to a wedge in rights for the controlling stockholder. For example, at Ford Motor Company the class B shares, held by the Ford family, gives them 40% voting rights but only a 2% cash flow stake.[1] In this chapter, I examine the theoretical pros and cons to using the dual class structure. In addition, I examine the predictions of the theories and the past empirical research.

[1]Ford Motor Company 2010 Proxy Statement (DEF 14A), filed April 1, 2010. On March 17, 2010, there were 3,324,319,603 shares of common stock and 70,852,076 shares of class B stock outstanding. Each class B stock is entitled to 31.279 votes and each common stock is entitled to one vote.

2.2 Benefits of the Dual Class Structure

The first benefit of using a dual class structure is that it potentially increases investment in organization specific human capital. Each firm has its own unique organizational structure, set of investment opportunities, human capital, and methods of doing business. Because of this uniqueness, managers must invest their time and resources in becoming an expert at their specific firm. Once they have acquired this firm specific knowledge, they have more value to their firm than to the general firm. The managers' incentive to acquire this firm specific knowledge is directly related to their expectation that they will be able to remain at the firm. If the firm is acquired and management is changed, the manager will not receive the expected return on their firm specific investment. In firms with a dual class structure, managers are able to maintain control of the firm through superior voting stock. This control provides incentive to managers to invest in firm specific human capital (Klein, Crawford, and Alchian (1978), DeAngelo and DeAngelo (1985), Fischel (1987)). Along these lines, Google stated in their original proxy statement "we believe the stability afforded by the dual-class structure will enable us to retain our unique culture and continue to attract and retain talented people who are Google's life blood. Our colleagues will be able to trust that they themselves and their labors of hard work, love and creativity will be well cared for by a company focused on stability and the long-term."[2]

The second benefit of using a dual class structure is that it prevents uninformed takeovers. In a world of asymmetric information, the insiders of the firm know more about the firm's investment projects and managerial performance than outsiders. These uninformed outsiders may seek to remove the firm's management group based on their limited knowledge of the firm. The firm's insiders will take steps to send signals to outsiders that managers are making proper decisions for the firm. These signals can be costly to the firm and may include high debt-equity ratios, dividend changes, or share repurchases. In firms with a dual class structure, the managers control of the firm prevents these uninformed takeovers. Therefore it

[2]Original S-1 Filing by Google, Inc. dated April 29, 2004.

reduces the costs that would be incurred by management to signal outsiders that they are making proper decisions (Alchian and Demsetz (1972), DeAngelo and DeAngelo (1985), Fischel (1987)).

The third benefit of using a dual class structure is that it potentially reduces managerial myopia. The market for corporate control monitors the management of firms and acts as a disciplinary force. When a firm's management does not act in the best interest of stockholders, a new management group may step forward and oust the poor performing management team. Because of this constant threat of takeover, a firm's management group may become to concerned with the current stock price or quarterly earnings. This myopic behavior can lead management to shift funds from long-term strategic projects to short-term projects which can be easily identified and valued by outsiders. However, when management uses the dual class structure to shield themselves from takeover, the management group is freed to act in the long-term best interest of the firm (Fischel (1987), Stein (1988), Shleifer and Vishny (1990)). In Google's original registration statement, the founders expressed this benefit of the dual class structure in the following quote: "We also believed that searching and organizing all the world's information was an unusually important task that should be carried out by a company that is trustworthy and interested in the public good. We believe a well functioning society should have abundant, free and unbiased access to high quality information. Google therefore has a responsibility to the world. The dual-class structure helps ensure that this responsibility is met. We believe that fulfilling this responsibility will deliver increased value to our shareholders."[3]

The next benefit of using a dual class structure is that the dual class structure potentially increases takeover premiums. In a firm with dispersed ownership, it is very difficult for shareholders to act as a collective unit. When faced with a tender offer, the inability to act as a collective unit leaves the shareholders with a significant negotiating disadvantage. Even further if the shareholder elected board of directors does not own a significant stake

[3]Original S-1 Filing by Google, Inc. dated April 29, 2004.

in the firm, they may not act in the best interest of all shareholders. In a firm with a dual class structure and concentrated voting power, superior voting shareholders gain significant bargaining power. With increased negotiating ability, the shareholders are able to affect a higher takeover premium. Thus, the dual class structure may reduce the number of control transactions but increase the price paid (Fischel (1987), Comment and Schwert (1995), Smart and Zutter (2003)).

The fifth benefit of using a dual class structure is that it allows the family or controlling stockholder to raise public equity while maintaining control of the firm. During the evolution of a corporation, there comes a point where the owner faces a binding wealth constraint and is not able to fund profitable investments for the firm. The owner must decide whether to seek external equity, dilute his ownership stake, and face increased agency costs or limit the future investment of the firm (Jensen and Meckling (1976)). In the typical single class firm, the owners trade-off their control for the additional equity made available to financing profitable projects. In some firms, however, the value of control is so great, because of the investment in firm specific human capital or asymmetric information, that the family or controlling group is not willing to trade-off control for new equity. For these firms, the dual class structure allows the family or controlling stockholder to remain in control while also raising public equity. Thus, allowing the firm to finance profitable investments (DeAngelo and DeAngelo (1985), Gilson (1987)).

The last benefit of using a dual class structure is that it allows the controlling stockholder to diversify unsystematic risk. According to the basics of the capital market equilibrium model, investors can reduce their unsystematic risk by holding a diversified portfolio of assets (Sharpe (1964), Lintner (1965)). For firms with a sole owner/manager it may be in his best interests to reduce his stake in the firm to achieve risk reduction (Fama Michael and Eugene (1985)). In addition, by bringing in outside investors who have diversified portfolios themselves, the owner can lower the overall cost of risk to the firm (Fischel (1987)). For dual class firms, the structure allows insiders to maintain control of the firm while also limiting

their unsystematic risk. In addition, the issuance of restricted voting stock brings in outside investors which can decrease the overall cost of equity capital to the firm (Fischel (1987), Gilson (1987)).

The following table summarizes the potential benefits of the dual class structure:

Benefit	Intuition
Increases investment in organization specific human capital	By maintaining voting control through the dual class structure, management is able to more firmly define their property rights to returns on their investment in organization-specific human capital (DeAngelo and DeAngelo (1985), Klein, Crawford, and Alchian (1978)). Without the ability to maintain voting control, the returns may be appropriated to another management group.
Prevents uninformed takeovers	Management's control on voting rights through the dual class structure prevents uninformed outside stockholders from mistakenly replacing the management team with a less productive group (DeAngelo and DeAngelo (1985), Alchian and Demsetz (1972)).
Reduces managerial myopia	By maintaining voting control through the dual class structure, managers are able to thwart any takeover attempts. By removing the threat and associated fear of takeovers, managers are able to focus on the long-term objectives of the firm rather than short-term profits (Stein (1988), Shleifer and Vishny (1990)).
Increases takeover premium	The dual class structure acts as an antitakeover device. The antitakeover property increases the relative bargaining positions of the target and decreases the position of the bidder. Thus, increasing the bidders costs and the gains to the target dual class firm (Comment and Schwert (1995), Smart and Zutter (2003)).
Increases the ability to raise public equity	Families and managers face binding personal wealth constraints. The dual class structure is used in firms where control is valuable yet cash-flow ownership is not practical due to the large scale of value increasing projects available to the firm (DeAngelo and DeAngelo (1985), Gilson (1987)). Without the dual class structure, these firms where control is valuable may remain private.
Increases the ability to diversify unsystematic risk	By maintaining control through a dual class structure, families and controlling stockholders can limit their exposure to unsystematic risk by limiting their investment in the company (Fischel (1987), Gilson (1987)).

2.3 Disadvantages of the Dual Class Structure

While the concentration of control with the dual class structure may provide benefits to shareholders, the separation of voting and cash flow rights has at least two potential disadvantages. The first disadvantage to the dual class structure is that management can become

entrenched under the structure. The firm's stock price is the best measure available to quantify the success of a firm. In turn, the firm's success is directly related to actions by the firm's management. Thus, their exist a positive correlation between a firm's managerial efficiency and their firm's stock price (Manne (1965)). It follows that poor management will lead to a reduction in stock price relative to other firms in the industry. As the stock price falls, outside firms see potential gains from replacing the poor management with a more efficient management team. The further the price falls the more attractive the firm becomes. When the potential gains become large enough, the outside firm will seek to take-over the poorly managed firm. Consequently, the market for corporate control acts as a monitor to management and provides disciplinary action to consistently under performing firms. With a dual class structure in place, management is able to maintain control through ownership of superior voting shares. This control insulates management from the market for corporate control and allows management to continue making poor decisions without repercussion (Gilson (1987), Jarrell and Poulsen (1988), Fama and Jensen (1983)).

The second disadvantage to the dual class structure is that it increases agency costs. As ownership dispersion increases in the single class firm, a separation in ownership and management occurs (Berle and Means (1932)). This creates an agent-principal relationship between management and shareholders. As the separation grows larger, the agent (management) may not act in the best interest of the principal. This results in agency costs, which Jensen and Meckling (1976) categorized as monitoring costs, bonding costs, and residual loss (reduction in welfare due to the divergence of opinion between shareholders and management). One method of reducing agency costs, is for the firm to have a large controlling shareholder or family which can act as both owner and manager. By acting as both, the family has both the incentive and monitoring power to efficiently operate the firm. In firms with a dual class structure, there is typically a large shareholder or family which has majority control of the firm. However, due to the nature of the dual class structure the family may not hold a majority position in the firm's cash flows (see Google, Ford). Because of their reduced cash

flow position, the family will be more willing to use corporate resources for their own personal benefit. This extraction of private benefits of control comes at the expense of minority shareholders(Barclay and Holderness (1989), Bebchuk, Kraakman, and Triantis (2000), Masulis, Wang, and Xie (2009)).

The following table summarizes the disadvantages of the dual class structure:

Disadvantage	Intuition
Entrenches management	By maintaining voting control through the dual class structure, managers insulate themselves from the market for corporate control. This prevents stockholders from receiving the potential benefits from an acquisition and allow managers to pursue objectives inconsistent with value maximization (Gilson (1987), Partch (1987), Jarrell and Poulsen (1988), Fama and Jensen (1983)
Increases agency costs	By creating share classes with disparate voting and cash flow rights, the dual class structure creates a wedge between the control and ownership interests of management. As the wedge grows larger, management is able to exert more control on the firm while at the same time they become more willing to waste corporate resources due to their limited economic interests in the firm (Jensen and Meckling (1976), Bebchuk, Kraakman, and Triantis (2000), Masulis, Wang, and Xie (2009)).

2.4 Theoretical Predictions and Empirical Research

Announcement Effect

With the trade-offs facing firms using the dual class structure, the first question is how does the structure affect shareholders. Does the implementation of the structure lead to a decrease in stock price due to the structure's entrenchment and expropriation properties or do stockholders view the structure as a mechanism the firms uses to fund growth? The earliest studies examine the recapitalization announcement effect and find mixed results. Partch (1987) examines 44 U.S. recapitalizations between 1962 and 1984 and determines there is no significant change in shareholder wealth due to the dual class structure's implementation. However, Jarrell and Poulsen (1988) extend the U.S. sample to 94 firms and find significant negative abnormal returns of -0.82% for recapitalizing firms. Further studies by Cornett and Vetsuypens (1989) and Mikkelson and Partch (1994) find small positive announcement

effectts of less than 1%. In the most recent and comprehensive study to date, Dimitrov and Jain (2006) they consider 178 recapitalizations from 1979 to 1998 and find an insignificant positive three-day abnormal return (0.06%). However, they find a significant positive abnormal return of 1.53% in their seven day window (-3 to +3). They conclude that the evidence shows that investors view dual class recapitalization announcements to be only mildly positive. Table 2.1 outlines summarizes the extant literature on the announcement effects of implementing a dual class structure.

Effects on Value and Performance

The dual class structure introduces new "agency problems" into the firm by separating ownership between superior voting and inferior voting holders. Masulis, Wang, and Xie (2009) finds four specific areas where the separation of voting and cash-flow rights incur costs at the expense of inferior voting shareholders.[4] Based on these additional costs, we would assume firm performance would be worse at dual class firms when compared to single class firms. However, some evidence points to an increase in performance after the implementation of the structure. Lehn, Netter, and Poulsen (1990) find positive industry-adjusted operating performance for firms who recapitalized between 1978 and 1987. Also, Dimitrov and Jain (2006) find holders of dual class stock firms earn an average abnormal return of 23.11% in the four years following recapitalization.

However, in studies using Tobin's q as a proxy for firm value results tend to show a negative affect of firm value as the wedge between voting and cash flow rights increases. Based on a sample of U.S. dual class firms between 1995 and 2002, Gompers, Ishii, and Metrick (2009) find firm value is positively associated with insiders' cash-flow rights and negatively related to insiders' voting rights when using single-stage regressions. In addition, they find firm value negatively associated with the wedge between voting and cash flow rights. When they control for endogeneity, estimates are similar to the single-stage regressions; however,

[4]These are corporate cash valued less to outside stockholders, CEOs receive higher compensation, managers are more likely to make value-destroying acquisitions, and capital expenditures contribute less to shareholder value.

the significance is lower. Similarly, Villalonga and Amit (2006) find control enhancing mechanisms, such as dual classes, pyramids, and cross-ownership, have a negative and significant effect on firm value for S & P 500 firms during 1994 to 2000. Consistent with this result, Villalonga and Amit (2009) find the wedge between voting and cash-flow rights is negatively associated with firm value for family firms; however, the result is not significant. Table 2.2 outlines the extant literature on the effect of the dual class structure on firm value and operating performance.

Dual Class Firms Characteristics

The dual class structure separates cash flow and voting rights between stockholders. Thus, the dual-class structure allows for insiders to hold a large percentage of voting rights, while minimizing their cash flow stake. In the case of Google, this wedge between voting and cash flow rights is approximately 40% (58.3% voting, 18.3% cash flow). However, according to the evidence the wedge is not always so large. Gompers, Ishii, and Metrick (2009) find insiders hold on average 60% of voting rights and 40% of cash-flow rights. They find that in only one-third of dual class firms do the insiders maintain a majority of voting rights but do not hold a majority of cash flow rights.

On average, dual class firms are larger and more highly leveraged than single class firms. Gompers, Ishii, and Metrick (2009) examine dual class and single class firms in 2000 and finds dual class firms to have average mean assets of $3.1 billion while the single class mean is only $2.1 billion. In addition, they find dual class firms have on average 35% higher leverage.

Gompers, Ishii, and Metrick (2009) examine the determinants of dual class status. They find the most powerful determinant of the dual class structure is whether a person's name appears in the name of the firm at the initial public offering. They also find four other determinants: whether the firm is in a media industry, the number and size of firms in the same metropolitan area, and the sales of the firm compared to others going public in the same industry.

Unification Research

Ang and Megginson (1989), and Smart, Thirumalai, and Zutter (2008) examine total announcement effects (market capitalization) and find positive abnormal returns around the announcement date.[5] Dittmann and Ulbricht (2008) examine the returns for the share classes, separately and jointly, and find positive announcement returns of 5% (RVS) and 2.5% (SVS) for the two-day event window (-1 to 0). They also find ownership structure and changes in liquidity explain a significant portion of the cross-sectional variation in abnormal returns.

Hauser and Lauterbach (2004) examine the price of vote in Israeli unification, while Bigelli, Mehrotra, and Rau (2008) look at 46 Italian unifications and suggests majority shareholders take advantage of minority shareholders during the unification. Ehrhardt, Kuklinski, and Nowak (2005) find an increase in share liquidity for German firms after the unification. Maury and Pajuste (2007) observe 105 European unifications to examine the determinants and consequences of unifications. They find that firms with smaller wedges, higher presence of financial investors, and higher frequency of cross-listing are more likely to unify their shares. For further detail on the prior literature, refer to Table 2.3.

[5]Ang and Megginson's (1989) result may not be significant. The result is found in the text of the paper and the significance is never discussed.

Table 2.1: Dual Class Recapitalization Studies

Study	Sample Description	Sample Period	Sample Size	Event Days	Return	Other Info
Partch (1987)	American Firms	1962-1984	43	-1 to 0[a]	1.24%[b]	Finds a negative (insignificant) average stock price reaction cumulated from the announcement to shareholder approval. Partch (1987) concludes shareholder wealth is not affected by the implementation of a dual class structure.
Jarrell and Poulsen (1988)	American Firms	1976-1987	94	-1 to 0	-0.82%	Find the largest negative returns occur in the firms who had just recently recapitalized (June 1986-May 1987) as well as insider holdings of 30% to 55%.
Ang and Megginson (1989)	British Firms	1975-1982	69	-1 to 0	4.82%[c]	Find significant positive excess return of 4.81% in the announcement month, but also find a significant negative cumulative excess return of -21.75% during the 12 months after announcement.
Cornett and Vetsuypens (1989)	American Firms[d]	1962-1986	70	-1 to 0	0.88%[e]	Conclude the results are weakly supportive of the optimal contracting hypothesis rather than the management entrenchment hypothesis.
Mikkelson and Partch (1994)	American Firms	1976-1987	66	-1 to 0	0.6%	Find a 24.2% adjusted stock return before the announcement (-250 to -2) of the dual class stock structure.
Dimitrov and Jain (2006)	American Firms	1979-1998	178	-1 to 1	0.06%	Find an average abnormal return of 1.09% (significant at the 10% level) for the seven day event window -3 to +3.

[a] Three of the observations use a three day window.
[b] Only 44% were positive.
[c] Study does not indicate whether the value is significant or not.
[d] Includes six Canadian firms.
[e] 35 were positive and 35 were negative.

Table 2.2: Dual Class Value/Performance Studies

Study	Sample Description	Sample Period	Sample Size	Event Years	Operating Performance	Other Info
Lehn, Netter, and Poulsen (1990)	American Firms	1976-1987	97	-1 to 3	3.25%[a]	Find positive industry-adjusted operating performance after announcement of dual class stock structure. Also, find significant industry-adjusted growth in capital expenditures to sales. Find an unusually high number (47%) issue equity securities shortly after recapitalization.
Mikkelson and Partch (1994)	American Firms	1976-1987	66	1 to 3	-1.67%[b]	Find negative operating performance after announcement of dual class structure, but find no evidence the subsequent operating performance is a result of the divergence between managers' voting and equity claims.
Gompers, Ishii, and Metrick (2009)	American Firms	1995-2002	734	NA	NA	Find firm value (Tobin's Q) is increasing (positive and concave) in cash flow ownership and decreasing (negative and convex) in voting ownership.
Dimitrov and Jain (2006)	American Firms	1979-1998	178	-1 to 3	18.6%[c]	Find dual class firms outperform the matching portfolios by 23.11% in the 4-year period following the announcements. Dual-class firms who engage in SEOs after recapitalization earn larger long-run abnormal returns than those who do not.
Villalonga and Amit (2009)	U.S. Family Firms	1994-2000	515	NA	NA	Find dual class stock structures have a negative affect on firm value (industry adjusted Tobin's Q).

[a] Industry-adjusted percentage change in operating income to sales.
[b] Percentage change in operating cash flow divided by assets. Text (discussion) states industry-adjusted but table does not show it to be industry adjusted.
[c] Difference in the five-year growth rate in operating income between firms who became dual class and their competitors.

Table 2.3: Dual Class Unification Studies

Study	Sample Description	Sample Period	Sample Size	Other Info
Ang and Megginson (1989)	British Firms	1955-1982	6	Find excess returns in announcement month are insignificant, but do find a significant -23.45% cumulative excess return during the 12 months after announcement.
Amoako-Adu and Smith (2001)	Canadian Firms	1979-1998	56	Examine the reasons why firms unify stock classes. The three most common reasons are (1) unification required as part of debt restructuring, (2) facilitate sale of control block, and (3) increase investor appeal prior to seasoned offering.
Hauser and Lauterbach (2004)	Israeli Firms	1990-2000	84	Examine the price of vote. Find the price of vote increases with the percentage vote lost by the majority shareholders, is higher in family-controlled firms, decreases with institutional investor holdings, and is similar to the price of vote implicit in the market prices of stocks.
Ehrhardt, Kuklinski, and Nowak (2005)	German Firms	1997-2003	43	Find the unification of dual class shares to be strictly shareholder value increasing. Find dual class firms reduce cost of capital through the unification due to increases in firm value as well as reductions in bid-ask spreads.
Maury and Pajuste (2007)	Continental Europe	1996-2002	108	Examines the determinants and consequences of unifications. Finds firms that unify have lower separation between voting and cash flow rights, higher presence of financial investors, and higher frequency of cross-listing in the U.S. Find no difference in ex-post sales growth and capital expenditures between unifying firms and those that remained dual class.
Bigelli, Mehrotra, and Rau (2008)	Italian Firms	1974-2005	46	Find majority shareholders hedge or take advantage of unifications by engaging in activities months before the unification decision. Find the price of voting shares dropped from -4.26% to -10.41% at unification announcement.
Dittmann and Ulbricht (2008)	German Firms	1990-2001	29	Find ownership structure and changes in liquidity explain a significant part of the cross-sectional variation in abnormal returns. Also, they find firms are more likely to unify when the controlling shareholder loses little voting power and the firm is financially constrained. Often, firms issue additional shares after the unification.
Li, Ortiz-Molina, and Zhao (2008)	American Firms	1995-2002	79	Examine institutional ownership in dual class firms. Find institutional ownership is significantly lower in dual class firms than in single-class firms. Following unification, they find institutional investors increase their shareholdings.
Smart, Thirumalai, and Zutter (2008)	American Firms	1990-1998	37	Find significantly positive eleven day (-5to +5) abnormal return of 5.2%.

Chapter 3

Institutional Details

In this chapter, I review the various methods firms use to implement the dual class structure. I also review the capitalization structures firms use under the dual class structure. For example, a firm may have a 10:1 voting ratio for their classes of stock or they may both have one vote per share but one class can vote for 75% of the directors. Last, I review alternative control mechanisms to the dual class structure.

3.1 Implementation Methods

There are a number of methods firms can use to implement the dual class share structure. Before the SEC introduced rule 19C-4, companies commonly introduced the dual class structure through a recapitalization. A common method firms used to recapitalize was through the use of a "dividend sweetener." With this method, a firm with one class, creates a new class with less voting power but with higher dividends. The firm then gives existing shareholders the option to convert to the new inferior voting class with higher dividends. For minority shareholders, who do not have enough shares to affect decisions, it is in their best interests to move to the newly formed restrictive voting class to take advantage of the dividend preference and leaves blockholders holding the superior voting shares, allowing them to maintain control of the firm. For example in 1984, BDM International offered its shareholders 1.1 shares of new class A stock for each existing share. The class A stock would receive 15% higher dividends but would only receive 0.10 votes per share and could only elect 25% of the board members. The shares that were not swapped were converted to class B shares which had full voting rights and could vote on 75% of the board. In addition, the firm announced

prior to the conversion that the class B shares would be delisted after the conversion. This added more pressure to minority shareholders to convert to class A.[1]

The "dividend sweetener" method was also used in combination with a two for one stock swap. In 1988, Concord Fabrics' shareholders ratified a plan to issue a class A share and a class B share for each share owned. The class A shares were promised a higher dividend rate and liquidation value, but were only given one vote per share. Class B shares were given ten votes per share. The Weinstein family owned 62% of the stock so it was in their best interests to hold the class B shares, while it was in minority shareholders best interests to sell their class B shares for class A shares.[2] This structure allowed Concord Fabrics to effectively segregate voting power from minority shareholders.

Another method specifically restricted in rule 19C-4 was the use of time phased voting plans. With this method, shareholders were segregated and voting rights distributed based on the length of time the shareholders owned the stock. In 1985, the shareholders of J.M. Smucker Company passed a proposal that gave shareholders 10 votes per share on the condition they had held the share continuously for at least four years. Using this method, the company attempted to get around the NYSE's dual-class restriction because it did not create two classes of stock but two classes of holders.[3]

Since SEC rule 19C-4 and the changes in SRO rules, most firms choose to implement the dual class structure during their initial public offering. In these cases, the management of the firm desires to retain control while also accessing the capital markets to fund positive NPV projects. Smart and Zutter (2008) find 9.6% of 2,622 initial public offerings are done with dual classes of stock during 1990 to 1998. Recent examples of firms who have implemented the structure at their initial public offering are Google and Rosetta Stone Software.

In some cases the dual class structure is implemented during a spinoff to minimize a tax burden. Before 1998, a Morris Trust enabled a firm to receive favorable tax treatment if

[1]"BDM extends offer to swap new stock issue for common", *Wall Street Journal*, January 24, 1984.

[2]"Shareholders ratify measure creating 2 classes of stock", *Wall Street Journal*, April 5, 1988.

[3]"J.M. Smucker Co. holders consider anti-takeover step", *Wall Street Journal*, August 1, 1985.

they retained 80% of the voting rights of the new firm in a spinoff. For example, in 1997 Hughes Electric was spun off from General Motors and merged with Raytheon. In order to obtain special tax treatment, General Motors had to retain 80% of the voting power in the new firm. This was accomplished by the new firm issuing two classes of stock that allowed General Motors to retain 80% of the voting rights.[4]

Firms also move to the dual class structure by issuing a stock dividend. For example, on June 12, 1994 Cherry Corporation converted its existing common shares to class B voting shares and four days later the board of directors authorized a stock dividend of one class A non-voting share for each class B share owned. The stock dividend occurred on July 11, 1994 and the next day the firm filed form S-2 to issue additional class A non-voting shares. The new issue concluded on August 19, 1994 and the firm received $33 million in net proceeds.[5] By using this method of implementation, the original shareholders maintained control of the firm while at the same time accessing new capital for the firm. Other examples of firms who moved to the dual class structure using this method are Dow Jones & Co, Times Mirror Company, CMI Corporation, and Baker Corporation.

3.2 Capitalization Structures

While the most common dual class structure is a 10:1 voting ratio with two classes of stock, firms unbundle voting and cash flow rights in many different ways. In this section, I discuss the various voting, dividend, and convertibility clauses firms use within the dual class umbrella.

Firms who unbundle cash flow and voting rights are typically referred to as dual class firms, although it does not necessarily mean the firm has only two classes of stock. Gompers, Ishii, and Metrick (2009), find 28 firms with more than two classes of stock in their eight year sample from 1995 to 2002, this includes at least six firms with four classes of stock. For example Comcast Corporation has three classes of stock: class A with one vote per share,

[4]"For some companies, A+B=1." CFO.com. February 13, 2001.

[5]Cherry Corp., February 28, 1995 Form 10-k (filed May 22, 1995), via Edgar.

class B with 15 votes per share, and class A special with no voting rights.[6] Radio One and Univision Communications are examples of firms with four classes of stock.

Gompers, Ishii, and Metrick (2009) find the most common voting structure setup is the 10:1 voting ratio.[7] Approximately 36% of dual class firms use the 10:1 voting ratio, where the superior voting class receives 10 votes per share and the inferior voting class receives only 1 vote per share. Examples include Google, American Greetings, and Dow Jones. 15% of dual class firms use a voting ratio higher than 10:1. For example, the class A shares of Boca Resorts, a firm controlled by Wayne Heizunga, are entitled to one vote each, while the class B shares are entitled to 10,000 votes each.[8] A more modest example is the Coca-Cola Bottling Company where the class B shares are entitled to 20 votes each.[9] For 18% of dual-class firms, the voting ratio is less than 10:1. For example, Blockbuster's class B stock is entitled to two votes per share, while the class A stock is entitled to one.[10] The remaining 31% of dual class firms, use proportional voting for directors. In these cases, both classes have one vote per share but the inferior voting class can only elect a minority of the directors (typically 25%). An example is the Washington Post. Their minority voting class, class A, is entitled to only vote on 30% of the board of directors.[11]

Since dual class firms are unbundling both cash flow and voting rights, not only do they use various voting structures but they may also have disproportionate dividend policies. In the 1980's, the minority voting class was commonly given higher dividends as a conversion sweetener; however, since most firms now become dual class at the initial public offering this is no longer the case. Gompers, Ishii, and Metrick (2009) finds only 13% of dual class firms give the inferior voting class a higher dividend. The Hershey Company is an example of one of the 13% whose inferior voting class is entitled to a higher dividend. Since their

[6]Comcast Corp., December 31, 2008 Form 10-k (filed February 20, 2009), via Edgar.
[7]I use the 2002 data for percentages.
[8]Boca Resorts, June 30, 2004 Form 10-K, (filed September 13, 2004), via Edgar.
[9]Coca-Cola Bottling Company, December 28, 2008 Form 10-K, (filed March 13, 2009), via Edgar.
[10]Blockbuster, Inc., January 6, 2008 Form 10-K, (filed March 6, 2008), via Edgar.
[11]Washington Post, December 28, 2008 Form 10-K, (filed February 26, 2009), via Edgar.

dual class structure implementation in 1984, the Hershey Company has given inferior voting shareholders a 10% higher dividend than class B superior voting shareholders.[12] According to Gompers, Ishii, and Metrick (2009), approximately 86% of dual-class firms pay equal dividends to superior and inferior voting classes. A very small minority of 1% (five firms) actually give the superior class a higher dividend than the inferior class.

Each dual class firm has at least two classes of stock authorized and issued; however, generally only the restricted voting class is traded publicly. Gompers, Ishii, and Metrick (2009) find that both classes are traded publicly only 15% of the time. Take Google and the New York Times for example, only the restricted voting class is traded publicly; however, Berkshire Hathaway trades both class A and B publicly. Since 85% of dual class firms trade only one class publicly, oftentimes the bylaws allow superior vote holders to convert their superior voting shares one-to-one for inferior voting shares. This allows superior voting shareholders to maintain liquidity. In addition, many firms setup automatic conversion features if a certain threshold of superior voting shares are converted. For example, if class B holdings fall below 10% they will automatically convert to class A.

3.3 Alternative Control Mechanisms

The dual class structure allows a firm's blockholders to maintain control of the firm through voting rights while holding less cash-flow rights than would be required to typically keep control. This type of mechanism is referred to as a controlling minority structure (CMS). Other controlling minority structures are pyramids and cross ownership.

With a pyramid structure, a controlling stake is held in a holding company, which in turn holds a controlling stake in another firm. For example, a controlling stakeholder holds a 50% plus one stake in company A and company A holds a 50% plus one stake in company B, then the controlling stakeholder maintains control of company B with only a 25% equity stake in the firm. This pyramid can continue for multiple levels and can reach multiple firms. For

[12]Hershey Company, December 31, 2008 Form 10-K, (field February 20, 2009), via Edgar.

example, La Porta, Lopez-de Silanes, and Shleifer (1999) show how the Wallenberg family, in Sweden, controls ABB, the fourth largest firm in Sweden by market capitalization by only holding a 5% cash flow stake. Pyramid structures are not frequently used in the United States; however, they are commonly used in countries outside of the United States.

Another alternative to maintain control is cross-ownership. Cross-ownership occurs when a firm owns portions of other firms in which it does business. In this way, the management group can maintain tight control of the firm through its relationships with its other companies. In the United States, cross-ownership is not used as frequently, due to legal restrictions. For example, there is currently a restriction on newspaper-broadcast cross-ownership, which the FCC attempted to eliminate but Congress nullified.

One way the dual class structure allows insiders to maintain control is by its effective anti-takeover property. With the dual class structure in place, it makes for an effective anti-takeover mechanism by allowing the controlling group to veto any takeover proposals. Other anti-takeover mechanisms that are used include poison pills and leveraged buyouts. A poison pill seeks to dissuade buyers by implementing detrimental plans if taken over. For example, a shareholder rights plan is a type of poison pill that will dilute the bidder's ownership percentage if a takeover occurs. The dilution occurs by automatically increasing the previous shareholders shares. A leveraged buyout occurs when a management group takes a firm private by using debt.

Chapter 4

A New Dataset

4.1 Introduction

The dual class stock structure provides for the separation of voting and cash flow rights. This separation of rights, which are typically provided under a single class structure, allows founders to maintain control of the firm while also raising external equity. In addition, it provides founders and family ownership groups the opportunity to diversify their holdings while also maintaining control. On the other hand, the separation can lead to management entrenchment and expropriation of minority shareholders. Due to the unique separation of voting and cash flow rights associated with a dual class structure, the structure provides a testing ground for theories involving the rights of minority shareholders, entrenchment, expropriation of minority shareholders, and the value of voting rights. In addition, the complexities involved with with the dual class structure leads researchers to often times remove dual class firms from their sample. In this chapter, I examine the current methods used to identify dual class firms, the sample selection problems associated with these methods, and provide a solution by the creation of twenty-year panel of dual class firms. Also, I explore the use of the structure over the twenty-period and study the characteristics of firms who usee the structure.

4.2 Methods for Identifying Dual Class Firms

As has been noted by previous researchers ((Gompers, Ishii, and Metrick 2009), (Zhang 2007)), there is no simple method to comprehensively identify dual class firms and firm

years in any of the commonly used research databases (CRSP, Compustat, Thomson, and Datastream). Due to the amount of effort and time required, prior research has relied on various methods for the identification of dual class firms. In the CRSP database, there are two methods for identifying dual class firms. The first method involves finding firms with multiple cusips (same 6-digit cusip with different last two digits). The second CRSP method involves using the share class field (SHRCLS) to find firms with a share class identified. For example, the CRSP share class field for the Washington Post contains "B". In the Compustat database, firms occasionally have "CL A" or "CL B" in the company name field. For example, the Compustat company name field for the Washington Post reads "Washington Post -CL B". In the Thomson *New Issues* database there is an "additional classes of common stock flag" (MULTI) that is set to "yes" if the issuer has had more than one class of common stock prior to the offering. Lastly, RiskMetrics, formerly Investor Responsibility Research Center (IRRC), has a database of corporate governance data representing approximately 1,900 firms with eight years of incremental data between 1990 to 2006. The RiskMetrics database has a dual class field that denotes whether the firm had multiple classes of stock.

4.3 Sample Selection Problems

There are sample selection problems with each of the methods previously listed. In this section, I will outline the problems with each method.

CRSP - Cusip Method: Identifying dual class firms by the changes in the seventh and eighth cusip digits.

One of the most commonly used methods for identifying dual class firms is to examine cusips in CRSP. The first six digits of the CUSIP uniquely identifies the issuer, and the seventh and eighth digits refer to a specific issue by the issuer. A company with dual classes of stock will have two cusips with the same six digit prefix and different seventh and eighth digits. For example, John Wiley & Sons has two classes of stock. The class A shares have a cusip of 96822320 and the class B shares have a cusip of 96822330. The problem with this

method is that it only identifies dual class firms where both classes of stock trade publicly. Dual class firms do not typically trade both classes publicly as the main intent of the structure is to maintain control with a superior class of stock. Gompers, Ishii, and Metrick (2009) find that both share classes trade publicly in only 15% of dual class firms. Therefore by using this identification method, 85% of dual class firms are not identified. Furthermore, the firms identified by this method are the firms with the smallest wedge between voting and cash flow rights, which has been tied to firm value (Gompers, Ishii, and Metrick 2009) and managerial extraction of private benefits of control (Masulis, Wang, and Xie 2009). Using data from Gompers, Ishii, and Metrick (2009), I find firms with both classes trading publicly have an average wedge of 15.8% while those who have only a single class publicly traded have an average wedge of 22.2%. Thus, using this method results in identifying the firms with the most similarities to single class firms. In addition, studies which use this method to eliminate dual class firms are leaving in the firms with the largest wedge between voting and cash flow rights. In summary, using the multiple trading classes proxy creates a sample selection problem and is not truly representative of dual class firms.

CRSP - Share Class Method: Identifying dual class firms by examining the share class CRSP field.

The researcher may use the share class field in two ways. First, they may designate all firms with a non-blank share class field as dual class. The problem with this method is that firms with a share class identified are not always dual class. Also, firms who leave the dual class structure may continue to leave a share class designated. For example, the Arden Group eliminated its dual class structure in 2004; however, it left the class A designation on its remaining shares. The CRSP share class method would contain the Arden Group in the years after their dual class structure was eliminated. The second method is to designate firms as dual class if two share classes are identified in CRSP. The problem with this approach is the same as the CRSP-Cusip method. It only identifies firms who have two classes of stock trading publicly.

Compustat - Class in Company Name Field: Identifying dual class firms by examining the company name field in Compustat.

Frequently, a dual class firm may be identified in Compustat by an examination of the company name field. Firms with "CL A" or "CL B" in the company name field may be a dual class firm. The problem with this method is that all firms may not be identified in this manner. For example, neither Google or Blockbuster have a class reference in the company name field and both are dual class firms.

Thomson - Multiple Class Issue: Identifying dual class firms solely based on if they were dual class during an issuance of stock.

Another method to identify dual class firms it to use Thomson's SDC *New Issues* database. Thomson's *New Issues* database has a field (MULTI) denoting if the issuer had multiple classes of stock. This database identifies the dual class status of a firm at a specific point in time. By using this database to identify dual class firms, a researcher assumes the firms continues to use the dual class structure indefinitely. This is not the case. Firms frequently unify their share classes. In addition, this method potentially leaves out firms who became dual class by means of a stock dividend or recapitalization.

RiskMetrics - IRRC Database: Identifying dual class firms based on the RiskMetrics dual class field.

The RiskMetrics/IRRC database contains a dual class variable; however, the database is limited to eight years spaced out between 1990 to 2006. In addition, the dataset is based off the S & P 1500 and is therefore limited to approximately 1,900 firms per year.

The following table summarizes the methods available for identifying dual class firms and the problems with each method.

Data Source	Method	Problem
CRSP	CUSIP Method - Identifying dual class firms by examining the changes in the seventh and eight cusip digits	This method only identifies dual class firms where both classes trade publicly. Both classes trade publicly in only 15% of dual class firms and these firms have the smallest wedge between voting and cash flow rights. This method identifies a small number of dual class firms and the firms it identifies are most like normal single class firms.
CRSP	Share Class Method - Identifying dual class firms by examining the share class field	There are two identification methods for the share class field. 1) Select all firms with a non-blank share class field. This method is not accurate because in some dual class firms the publicly traded stock is not labeled class A or B it is just Common Stock. In addition, some firms who leave the dual class structure leave the class A or B label on their remaining common shares. 2) Select all firms with two share classes. This method identifies only those dual class firms with both share classes trading publicly, similar to the CUSIP method.
Compustat	Company Name Method - Identifying dual class firms by examining the company name field in Compustat (i.e. "Washington Post - CL B")	This method depends on "CL A" or "CL B" being in the Compustat name field. The problem is that all dual class firms do not have this designation in Compustat (Blockbuster and Google are examples).
Thomson	Multiple Class Issue Method - Identifying dual class firms based on if they were dual class during an issuance of stock	This method will include firms who later leave the dual class structure. Also, this method potentially leaves out firms who moved to the dual class structure by a recapitalization or stock dividend.
RiskMetrics	Dual Class Field - Identifying dual class firms based on the RiskMetrics dual class field	This sample is limited to the largest firms and covers only eight years between 1990 to 2006.

4.4 A New Method for Identifying Dual Class Firms

As a potential solution to the methods above, Zhang (2007) compares the number of shares outstanding between Compustat and CRSP. CRSP lists shares outstanding by class, whereas, Compustat lists shares outstanding by firm. For example, the New York Times has only one share class trading publicly, so CRSP has one company record with the number of class A

shares outstanding. Compustat, on the other hand, has one record for the New York Times but its shares outstanding field comes from the financial statement and includes all classes of common shares outstanding. If there is a difference between the shares outstanding figures from Compustat and CRSP the firm is potentially dual class. Zhang (2007) sets the shares outstanding difference at 5% and then verifies the firm's status by examining Securities and Exchange Commission documents.

Gompers, Ishii, and Metrick (2009) combines the Zhang method with the Thomson SDC (and Jay Ritter dataset), CRSP cusip, and RiskMetrics methods listed above to identify a candidate sample and then they check Securities and Exchange Commission (SEC) documents for confirmation. The limitation to using Gompers, Ishii, and Metrick (2009) data is their panel is limited to fiscal years 1995 to 2002. Table 4.1 lists the various datasets with dual class information and outlines the number of dual class firms and firms years identified in each dataset.

4.5 Sample Selection Methodology

To find a more comprehensive listing of dual class firms, I follow a similar technique to Gompers, Ishii, and Metrick (2009). I first pull all firms for fiscal years 1988[1]to 2007 from the Compustat Fundamentals Annual dataset maintained by Wharton. I then apply five criteria to the sample: 1) revenues or assets of at least one dollar, 2) SIC code is not equal to 6798, 3) the firm is American, 4) the firm's stock trades on the NYSE, AMEX, NASDAQ, or over-the-counter (Exchange (EXCHG) codes 11, 12, 13, 14, and 19) and 5) the firm is not a limited partnership[2] This "test" sample consists of 13,879 firms and 113,047 firms years.

With this "test" sample, I test each firm year against five unique dual class tests. They are:

[1]I begin with fiscal year 1988 because my access to machine readable SEC filings begins with 1988 (Laser Disclosure). Prior SEC filings are available on microfiche and may be used in future research.

[2]I identify limited partnerships by searching for "-LP" in the Compustat firm name.

- **Compustat class test** - Firms with "CL A" or "CL B" in the company name field pass the Compustat class test.

- **Center for Research Prices class code test (CRSP code test)** - A firm which has a share class code in the shrcd field passes the CRSP code test.

- **Thomson SDC test (SDC test)** - I pull all multiple class issues from SDC for the years 1980 to 2007. A firm passes the SDC test if the fiscal year end date is after the issue date listed in SDC.

- **IPO test**- I use the list of initial public offerings by dual class firms from Jay Ritter's IPO website (Smart and Zutter collected most of the data). The list contains 570 firms who went public between January 1980 to December 2007. A firm passes the IPO test if the fiscal year end date is after the issue date identified by Ritter.

- **CRSP/Compustat shares outstanding test** - A firm passes the CRSP/Compustat shares outstanding test if the difference between the Compustat and CRSP shares outstanding fields is greater than 1%. To eliminate random errors due to timing differences or inconsistent data, I also require the firm to pass one of the following subtests. 1) When there is more than one year with a 1% difference calculated the 1% difference must occur in consecutive years and the 1% difference must occur in at least half of the total number of years in the "test" sample. 2) Where there is only one year with a 1% difference, the difference must occur in at least 25% of the total number of years in the "test" sample.

If a firm passes any of the five tests in any fiscal year the firm is put into a pool of potential dual class firms. This results in a potential pool of 3,410 firms and 27,738 firm years. I then use SEC documents to examine each fiscal year for all potential firms to identify if and when they were dual class. Firms are identified as dual class if the company has authorized dual

class shares.[3] The resulting sample consists of 1,103 dual class firms and 8,265 firm years.[4] Table 4.2 shows the distribution of dual class firms by year. During the twenty-year period, 7.9% of all firms chose to use the dual class structure.

This new sample resolves the problems with using previous proxies. The sample spans twenty years, includes both initial public offering and recapitalization firms, includes firms who trade only one class publicly, identifies each year the firm is dual class, and also covers a large sample of testable firms (approximately 5,700 firms per year).

4.6 Use from 1988 to 2007

Table 4.2 shows the number of dual class firms per year along with the total number of firms per year. Over the twenty-year period, the minimum number of dual class firms occurred in 1989 with 349 firms and the maximum occurred in 1996 when 514 firms were dual class. Despite the large change in the number of dual class firms, the percentage of dual class firms changed very little over the twenty-year period. The minimum percentage occured in 1993 at 6.7% while the maximum was in 1999 and 2000 at 7.8%. Over the entire twenty years, 7.9% (1,103 of 13,879) of all firms had a dual class structure in place at one time.

In regards to market capitalization, dual class firms have consistently made up in excess of 5% of the total market capitalization. Figure 4.1 shows the increase in dual class market capitalization over the years. Over the twenty year period, dual class firms made up a minimum of 5.7% of the market capitalization in 1991 and a maximum of 9.4% in 2002. It is interesting to note that despite the percentage of class firms remaining around 7.5% from 2000 to 2007, the market capitalization percentage has risen from 7.1% in 2000 to 9.3% in 2007. From these figures, it appears dual class firms are getting larger and becoming relatively more important in the equity markets.

[3] I identify a firm as dual class even if there are no Class B shares outstanding. Until the company loses the authorization to issue Class B shares, I consider it dual class.

[4] This sample of dual class firms covers twenty years, which is twice the length of the longest prior sample (Zhang (2007)), and covers more than twice the number of firms years than the Gompers, Ishii, and Metrick (2009) sample.

Table 4.3 lists the percentage of dual class firms by exchange and also shows the move toward larger firms using the dual class structure. Historically, the New York Stock Exchange held a fairly strong position against dual class stocks (see Section 1.2) and the AMEX and Nasdaq held a more neutral position. This can be seen in Table 4.3. In 1988 only 7.2% of firms in the NYSE had a dual class structure while 11.5% of AMEX firms used the structure. In more recent years the NYSE has a larger proportion of dual class firms than does the AMEX and Nasdaq.

The dual class structure allows insiders to keep control of the corporation, and based on theory, we should find the dual class structure in industries in which their are significant benefits to maintaining control. According to Demsetz and Lehn (1985), the amenity potential of a firm's output is one determinant that could lead to increased control or ownership concentration. In line with this, I find a clustering of dual class firms in the communications and publishing industries (see Table 4.4). In addition, I find the business services, food and kindred products, and chemicals industries have a high number of dual class firms. Over the twenty years, there are no significant changes in industry that stands out in Table 4.4 with the exception of communications (two-digit SIC 48). In 1988, only 28 communication firms had a dual class structure and in 2000, 71 firms have the structure. However, in 2007, the figure has dropped to 45 dual class firms. This may be a result due to consolidation in the industry.

Table 4.5 shows the medians, difference in medians, and p-values for single and dual class firms across several firm characteristics for the years 1988, 1992, 1996, 2000, 2004, and 2007. Variables are defined in Appendix C.

4.7 Conclusion

Due to the time and effort involved in correctly identifying dual class firms, researchers in the past have used proxies with sample selection problems. In this chapter, I outline the selection problems associated with various methods used to identify dual class firms. In addition, I

introduce a twenty-year panel of dual class firms, consisting of 1,103 firms and 8,265 firm-years. Based on this new dual class sample, I find the dual class structure continues to be widely used in the United States (7.3% of firms) and makes up close to 10% of the total market capitalization.

Table 4.1: Sources of U.S. Dual Class Information

Datasets with United States dual class stock information. The number of dual class firms in the source is listed and the number of dual class firm years.

Dataset	Years	Firms	Firm Years	Data
IRRC / RiskMetrics	1990 - 2006	451	1,410	Dual Class Variable
SDC	1980 - 2007	786	NA	List of firms with multiple class issues (IPOs or SEOs).
Ritter	1980 - 2007	570	NA	List of firms who were dual class at their initial public offering. IPO date and total shares issued are recorded.
Zhang (2007)	1990-1999	930	5,547	List of firms who are dual class.
Gompers, Ishii, and Metrick (2009)	1995-2002	733	3,600	Number of classes, votes per class, dividends per class, insider ownership by class, shares outstanding by class are recorded. Data is available by firm year.
Jarrell and Poulsen (1988)	1977 - 05/1987	94	NA	List of Firms who Recapitalized to Dual Class
Lease, McConnell, and Mikkelson (1983)	1940-1978	30	NA	Firms with dual classes of stock. Sample includes only firms with both classes trading publicly and firms in which only the votes rights were different (dividends must be identical).

Table 4.2: Number of Dual Class Firms and % Market Capitalization by Year
This table shows the number of firms by fiscal year. dual class firms are identified by the process described in Section 4.5. Market capitalization figures are based on the closing fiscal year price (PRCCF) and number of common shares outstanding (CSHO) reported by Compustat. For dual class firms, the number of common shares outstanding is based on the sum of all classes. Data comes from the Compustat Fundamentals Annual database.

	Number of Firms			Market Capitalization (Billions)		
Year	**All**	**Dual Class**	**Percentage**	**All**	**Dual Class**	**Percentage**
1988	4,955	350	7.1%	$ 2,412	$ 161	6.7%
1989	4,859	349	7.2%	$ 2,913	$ 189	6.5%
1990	4,840	356	7.4%	$ 2,711	$ 160	5.9%
1991	4,978	366	7.4%	$ 3,578	$ 203	5.7%
1992	5,198	383	7.4%	$ 3,978	$ 239	6.0%
1993	6,207	415	6.7%	$ 4,593	$ 306	6.7%
1994	6,507	447	6.9%	$ 4,556	$ 294	6.4%
1995	6,636	460	6.9%	$ 6,156	$ 389	6.3%
1996	7,066	514	7.3%	$ 7,501	$ 525	7.0%
1997	7,035	511	7.3%	$ 9,910	$ 717	7.2%
1998	6,653	500	7.5%	$ 11,941	$ 800	6.7%
1999	6,420	500	7.8%	$ 15,002	$ 1,327	8.8%
2000	6,259	491	7.8%	$ 14,945	$ 1,054	7.1%
2001	5,723	441	7.7%	$ 12,666	$ 1,137	9.0%
2002	5,363	409	7.6%	$ 10,013	$ 938	9.4%
2003	5,066	381	7.5%	$ 12,814	$ 1,158	9.0%
2004	5,001	370	7.4%	$ 14,289	$ 1,313	9.2%
2005	4,922	358	7.3%	$ 14,792	$ 1,355	9.2%
2006	4,850	333	6.9%	$ 16,447	$ 1,509	9.2%
2007	4,509	331	7.3%	$ 16,623	$ 1,543	9.3%
Total	113,047	8,265	7.3%			
Firms	13,879	1,103	7.9%			

Figure 4.1: Dual Class Firms and % Market Capitalization by Year (1988-2007)

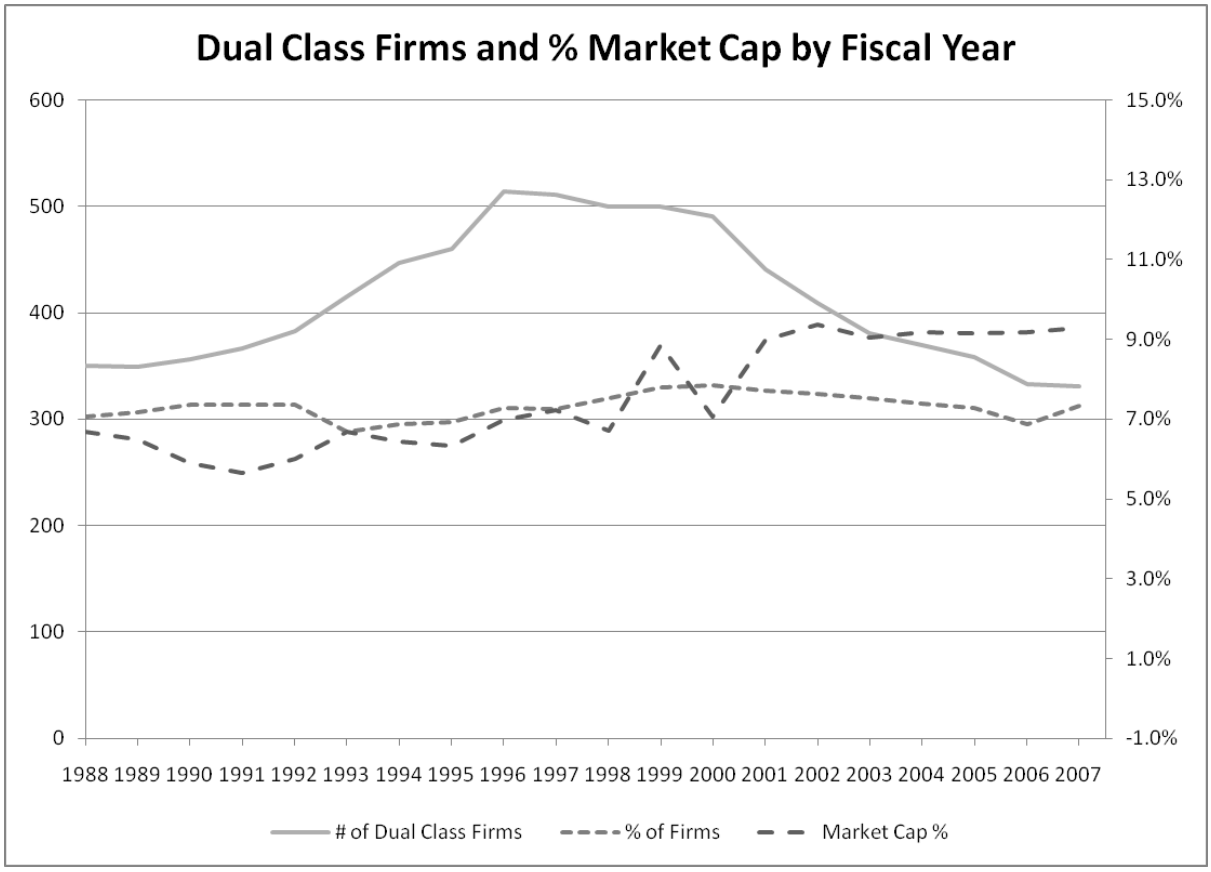

Table 4.3: Percentage of Dual Class Firms by Exchange

This table shows the percentage of firms in each exchange that are dual class. The table also shows the median dual class firm size for each year. Assets are measured in millions. Dual-class firms are identified by the process described in Section 4.5. For example in 2000, 12.0% of all NYSE firms had dual classes of stock. The firm's exchange is identified by the exchange (EXCHG) code in the Compustat Fundamentals Annual database. OTC represents over-the-counter bulletin board.

	NYSE		**AMEX**		**NASDAQ**		**OTC**	
Year	%	Assets	%	Assets	%	Assets	%	Assets
1988	7.2%	442.1	11.5%	132.4	6.5%	138.6	6.5%	20.0
1989	7.3%	468.9	11.9%	159.5	6.6%	139.2	6.8%	18.1
1990	7.9%	496.3	12.6%	170.6	6.5%	156.4	6.5%	19.6
1991	8.2%	490.9	12.1%	192.5	6.3%	178.5	6.5%	33.5
1992	8.4%	474.8	11.3%	194.5	6.4%	158.4	6.5%	47.1
1993	8.2%	497.4	10.1%	232.7	5.8%	162.8	5.7%	60.1
1994	8.3%	477.2	11.1%	229.3	5.9%	173.5	6.2%	67.1
1995	8.5%	547.2	10.7%	205.6	6.0%	186.6	6.1%	83.7
1996	10.1%	565.0	9.7%	217.3	6.0%	229.4	6.1%	86.0
1997	10.3%	688.3	9.6%	162.1	6.1%	217.8	5.7%	107.2
1998	10.9%	845.3	9.0%	143.5	6.2%	238.8	6.0%	140.4
1999	12.0%	1,106.5	8.8%	136.7	6.3%	324.8	5.9%	144.5
2000	12.0%	1,159.0	8.9%	121.2	6.4%	418.9	6.5%	140.8
2001	11.7%	1,203.0	9.2%	111.2	6.0%	403.6	6.8%	117.8
2002	11.5%	1,247.1	8.0%	100.2	5.9%	379.5	7.0%	107.2
2003	11.2%	1,306.9	7.7%	104.3	5.7%	413.8	7.3%	69.7
2004	11.0%	1,373.5	7.2%	113.4	5.7%	504.0	7.0%	66.3
2005	11.2%	1,525.1	6.4%	105.0	5.6%	498.1	5.4%	52.5
2006	10.9%	1,650.0	5.6%	88.5	5.1%	620.0	4.8%	30.2
2007	11.3%	1,804.4	5.1%	84.0	5.7%	687.3	3.8%	26.5

Table 4.4: Dual Class Firms by Industry and Year

This table shows the number of dual class firms in each two-digit SIC code in the years 1988, 1992, 1996, 2000, 2004, and 2007. Dual class firms are identified by the process described in Section 4.5. SIC codes comes from the Compustat Fundamentals Annual database.

SIC	Description	1988	1992	1996	2000	2004	2007
01	Agricultural Production - Crops	2	3	2	3	2	
02	Agricultural Production Livestock and Animal Specialties			1	1	1	1
07	Agricultural Services	1					
10	Metal Mining	1	3	3	2	1	
13	Oil and Gas Extraction	8	12	7	5	4	10
14	Mining and Quarrying Of Nonmetallic Minerals, Except Fuels				1	1	1
15	Building Construction - General Contractors and Operative Builders	3	5	8	5	3	3
16	Heavy Construction Other Than Building Construction - Contractors	2	1	1			
17	Construction - Special Trade Contractors	3	3	3	3	2	1
20	Food and Kindred Products	23	18	23	21	19	17
21	Tobacco Products			2			
22	Textile Mill Products	9	10	7	7	3	3
23	Apparel and Other Finished Products Made From Fabrics and Similar Materials	3	2	4	6	5	4
24	Lumber and Wood Products, Except Furniture	1	2	2	2	1	1
25	Furniture and Fixtures	4	4	4	5	4	3
26	Paper and Allied Products	3	3	5	4	2	2
27	Printing, Publishing and Allied Industries	20	26	24	18	17	15
28	Chemicals and Allied Products	21	20	24	22	16	15
29	Petroleum Refining and Related Industries	2	2	2			
30	Rubber and Miscellaneous Plastics Products	5	8	7	7	6	2
31	Leather and Leather Products	2	3	5	5	5	4
32	Stone, Clay, Glass and Concrete Products	3	2	2	2	2	1
33	Primary Metal Industries	3	3	9	8	1	2
34	Fabricated Metal Products, Except Machinery and Transportation Equipment	4	3	8	7	7	4
35	Industrial and Commercial Machinery and Computer Equipment	15	18	25	17	12	9
36	Electronic and Other Electrical Equipment and Components, Except Computer Equipment	25	26	28	27	19	16
37	Transportation Equipment	9	9	13	12	9	7
38	Measuring, Analysing, Controlling Instruments; Photographic, Medical & Optical Goods; Watches & Clocks	18	16	16	10	6	6
39	Miscellaneous Manufacturing Industries	5	5	6	5	5	5
40	Railroad Transportation			2	3	2	1
41	Local and Suburban Transit and Interurban Highway Passenger Transportation	1	1	1			1
42	Motor Freight Transportation and Warehousing		1	5	5	5	2
44	Water Transportation			1			1
45	Transportation By Air	2	1	3	1	1	1
46	Pipelines, Except Natural Gas					1	2
47	Transportation Services	1	1	1	2	1	2
48	Communications	28	30	60	71	53	45
49	Electric, Gas and Sanitary Services	7	8	6	6	4	6
50	Wholesale Trade - Durable Goods	8	6	14	12	11	9
51	Wholesale Trade - Nondurable Goods	7	6	9	8	4	4
52	Building Materials, Hardware, Garden Supply and Mobile Home Dealers			2	1		
53	General Merchandise Stores	3	5	5	4	4	3
54	Food Stores	8	11	11	6	3	2
55	Automotive Dealers and Gasoline Service Stations			3	5	5	4
56	Apparel and Accessory Stores	3	4	8	6	5	5
57	Home Furniture, Furnishings and Equipment Stores	2	2	2	1	2	1
58	Eating and Drinking Places	3	5	5	2	4	4
59	Miscellaneous Retail	4	10	13	12	6	7
60	Depository Institutions	10	8	14	13	9	11
61	Nondepository Credit Institutions	3	6	8	5	4	5
62	Security and Commodity Brokers, Dealers, Exchanges and Services	5	5	4	13	11	14
63	Insurance Carriers	12	11	15	9	13	10
64	Insurance Agents, Brokers and Service	2	3	4	5	3	2
65	Real Estate	3	1	2	2	4	3
67	Holding and Other Investment Offices	2	3	5	4	2	3
70	Hotels, Rooming Houses, Camps and Other Lodging Places		1	2	3	4	
72	Personal Services	1	2	4	3	2	1
73	Business Services	16	16	27	44	30	28
75	Automotive Repair, Services and Parking			3	3		
76	Miscellaneous Repair Services			1			
78	Motion Pictures	9	9	8	10	6	6
79	Amusement and Recreation Services	3	3	6	10	8	6
80	Health Services	4	11	4	3	3	4
82	Educational Services	1	1	2	4	2	1
83	Social Services						1
87	Engineering, Accounting, Research, Management and Related Services	4	3	9	7	4	3
99	Nonclassifiable Establishments	3	2	4	3	1	1
		350	383	514	491	370	331

Table 4.5: Medians for Single and Dual Class Firms by Year

This table shows the medians, difference in medians, and the p-value for single and dual class firms in the years 1998, 1992, 1996, 2000, 2004, and 2007. Dual-class firms are identified by the process described in Section 4.5. Variables are defined in Appendix C. Data comes from the Compustat Fundamentals Annual database.

	1988	1992	1996	2000	2004	2007
Assets (Millions)						
Dual Class	142.0	200.1	269.0	522.3	730.1	984.1
Single Class	54.5	71.2	108.0	188.2	312.5	483.2
Difference	87.5	128.8	161.1	334.0	417.6	500.9
p-value	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*
Sales (Millions)						
Dual Class	138.6	201.1	221.6	357.8	516.2	634.6
Single Class	58.0	73.2	73.9	98.4	152.4	224.0
Difference	80.6	127.9	147.7	259.4	363.8	410.6
p-value	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*
Leverage						
Dual Class	18.7%	17.5%	17.0%	16.2%	15.3%	17.0%
Single Class	12.7%	9.3%	6.6%	6.7%	7.5%	8.3%
Difference	6.1%	8.2%	10.4%	9.6%	7.8%	8.7%
p-value	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*	*<.0001*
Tobin's q						
Dual Class	1.27	1.30	1.40	1.18	1.42	1.37
Single Class	1.23	1.39	1.59	1.29	1.65	1.58
Difference	0.04	-0.09	-0.19	-0.11	-0.23	-0.21
p-value	*0.4548*	*0.0008*	*<.0001*	*0.0003*	*<.0001*	*<.0001*
Sales Growth						
Dual Class	12.2%	6.0%	13.2%	13.3%	9.7%	8.4%
Single Class	12.9%	7.7%	13.7%	14.4%	11.2%	9.7%
Difference	-0.7%	-1.7%	-0.4%	-1.1%	-1.5%	-1.3%
p-value	*0.3441*	*0.0600*	*0.2950*	*0.4366*	*0.1853*	*0.0894*
Capital Expenditures						
Dual Class	5.0%	4.3%	4.3%	4.1%	2.6%	3.1%
Single Class	4.8%	4.2%	4.6%	4.1%	2.2%	2.3%
Difference	0.2%	0.1%	-0.3%	0.0%	0.5%	0.8%
p-value	*0.1572*	*0.4493*	*0.3966*	*0.3463*	*0.0021*	*<.0001*
Equity Issuance (Means)						
Dual Class	0.56	0.62	0.71	0.71	0.83	0.84
Single Class	0.54	0.66	0.69	0.70	0.88	0.87
Difference	0.02	-0.04	0.02	0.01	-0.05	-0.03
p-value	*0.2683*	*0.0657*	*0.2095*	*0.2606*	*0.0014*	*0.0377*

Chapter 5

Causes of Unification

5.1 Introduction

The dual class share structure allows firms to issue shares with disproportionate voting rights. For example at Forest Oil Corporation, the company's dual class structure gave the holders of Class B shares ten votes per share while Common stock holders received only one vote per share. With the disproportionate voting structure, the superior voting shareholders may hold a majority of the voting rights while holding a minority of the residual cash rights. In the case of Forest Oil Corporation, the Dorn and Miller families' holdings of Class B shares give them control of 73% of the voting rights while only holding an 27% equity stake.[1] The dual class structure gives controlling stockholders the ability to raise equity capital without losing a significant portion of voting control (DeAngelo and DeAngelo (1985)). In addition, the structure allows management to focus on the long-term direction of the firm without fear of unwanted takeover attempts, which may benefit minority shareholders if this allows managers to pursue beneficial long-run projects. On the other hand, the structure can allow management to become entrenched (Morck, Shleifer, and Vishny (1988) and Stulz (1988)) and extract private benefits of control (Masulis, Wang, and Xie (2009)).

While the dual class structure potentially allows a family or blockholder to maintain control of the firm indefinitely, there are occasions where dual class firms abandon the disparate voting rights and move to one vote per share. This recapitalization to a single class of stock is commonly referred to as a "unification" in the literature. From 1988 to 2007, approximately 23% (253 firms) of dual class firms abandoned the structure. Of the 253 firms who left the

[1]Forest Oil Corporation, Inc. DEF 14A filed April 7, 1993.

dual class structure, 95 firms did so voluntarily through the use of a shareholder proposal or by the blockholders simply converting the remaining superior voting shares to restricted voting shares. The remaining unifications were done "involuntarily" based on automatic conversions, bankruptcies, mergers, or restricted voting shareholders converting their restricted shares to superior voting shares.

For the 95 voluntary firms, blockholders held on average 51.4% of the voting power prior to the elimination of the superior share class. After the unification, these same blockholders held only 26.0% of voting power. This leads to the question, why are blockholders willingly giving up approximately half of their voting power in order to unify their share classes? Basic capital structure theory suggests blockholders are willing to dilute their voting power in order to raise capital. However, in these 95 firms the blockholders are giving up their voting power without raising additional capital. Perhaps they are looking ahead and the costs of the dual class structure has become so prohibitive that blockholders are willing to lose a significant portion of their voting rights to gain improved access to the capital markets? Or is it a story of personal liquidity, do the blockholders surrender their voting power in order to gain liquidity and diversify their personal assets? If so, why is it necessary to remove the dual class structure before selling their shares?

I test two hypotheses regarding the decision to eliminate the dual class structure. First, the exit hypothesis suggests firms eliminate their dual class structure to assist blockholders in selling their shares or to send a signal that they are ready to relinquish control of the firm. Second, the optimal structure hypothesis suggests firms eliminate their dual class structure because the additional costs associated with the structure has exceeded the benefits provided by the structure. Based on the empirical analysis, I find support for the exit hypothesis that blockholders eliminate the dual class structure in order to gain liquidity. Approximately 70% of firms who unify their share classes by means of a shareholder proposal cite their desire to "increase liquidity" as a primary reason to eliminate the dual class structure. Despite maintaining a constant level of voting power in the three years prior to the unification,

blockholders' voting power is substantially and significantly reduced in the years immediately following a unification. On average blockholders voting power is reduced by 12% in the three years after eliminating the dual class structure. While a portion of the decline in voting power is attributable to share dilution, the empirical results show over 67% of the decline in voting power is due to a reduction in blockholder holdings. As further evidence, blockholders completely exit the firm by means of a merger or selling their shares within three years of the unification in 41% of the firms.

In a similar study, Klasa (2009) examines 84 closely held American public firms that are controlled and managed by families to examine why they sell their remaining ownership stake. She examines three explanations for families exiting the firm; the sales are explained in the context of different theories of the firm, the family sells its shares when the market value exceeds the family's privately informed valuation, or the families sell because a high demand for financial slack. She finds her results are best explained by theories of the firm. Specifically she finds the results relate to optimal risk bearing, the separation of ownership and management expertise, the CEO succession process, and monitoring provided by outside blockholders.

This study adds to the literature in three ways. First, this is the first study to examine all methods firms use to eliminate their dual class structure. Previous literature has focused exclusively on firms who convert from a dual class structure by way of shareholder proposal. By restricting the set of sample unifications, these studies exclude unifications that occur simply due to the superior voting shareholder or shareholder group converting their shares. These unifications add depth to the study, as they are the firms where the tightest control is held. Second, by examining all of the unifications over a twenty year period, the sample is the most comprehensive to date and overcomes some of the previous limitations due to small sample size. For example, Arugaslan (2007) examines only 34 unifications, Smart, Thirumalai, and Zutter (2008) examines 37 unifications, and Li, Ortiz-Molina, and Zhao (2008) examines 79. Third and most importantly, by demonstrating that blockholders are

willing to give up large portions of voting power in order to gain liquidity, the study sheds light on the importance and value of blockholder liquidity.

The rest of the paper is organized as follows. In Section 2, I establish the hypotheses explaining the elimination of the dual class structure. In Section 3, I discuss the control sample of dual class firms and the sample of 253 unifications. In section 4, I present the results. Section 5 provides a summary and conclusion of the findings.

5.2 Hypotheses

Based on the existing literature, I have identified two hypotheses to explain why firms choose to eliminate their dual class structure.

5.2.1 Exit Hypothesis

The dual class share structure consolidates voting control in the hands of superior voting shareholders. In doing so, the structure provides superior voting shareholders with the power to defeat bids to takeover the firm. In fact, it was during the active hostile takeover period of the 1980s that an increasing number of firms chose to implement the dual class structure. Firms such as J.M. Smucker Company, Fedders Corp, and General Cinema implemented the structure "aimed at fending off hostile takeover attempts."[2] De Jong and Röell (2005) call the dual class share structure the "the single most powerful mechanism against takeovers" and Seligman (1986) went so far as to say "with a majority of votes in hand, their corporation will not be a takeover target."

While Seligman's argument may be a bit extreme (e.g. News Corp and Dow Jones), the literature shows the mechanism may act as a deterrence. Field and Karpoff (2002) find that the presence of anti-takeover devices such as dual class stock at the initial public offering has a negative effect on takeover likelihood and Holmen and Nivorozhkin (2009) find a negative and

[2]"General Cinema Board seeks new stock class to discourage suitors." Wall Street Journal. November 14, 1984.

significant relationship between the use of the dual class structure and takeover probability in Swedish Firms. On the other hand, if the company is interested in relinquishing control, the dual class structure may allow for better negotiation (Zingales (1995)); however, Field and Karpoff (2002) find that the presence of anti-takeover devices such as the dual class structure does not have an impact on takeover premiums.

In addition to the structure's anti-takeover property, Gompers, Ishii, and Metrick (2009) find that in approximately 85% of dual class firms only the restricted voting class trades publicly. This severely restricts the liquidity of the superior voting class. As a solution to this problem, some dual class firms have conversion features for the superior voting class. For example, the New York Times allows superior voting (Class B) shareholders the option to convert their shares at anytime to restricted voting (Class A) shares on a one-to-one basis.[3] However, all firms do not have the convertibility clause for their superior voting shares. Without the convertibility option, if the superior voting shareholder desires to sell all or a portion of his shares he does not have the luxury of using the public market for the transaction.

Based on the anti-takeover property and the lack of conversion rights, the exit hypothesis suggests the dual class structure inhibits superior voting shareholders from selling their stake or a portion of their stake in the firm; therefore, firms eliminate their dual class structure so that superior voting shareholders can sell their holdings or send a signal to potential buyers that they are ready to relinquish control.

5.2.2 Optimal Structure Hypothesis

By allowing multiple classes of stock with different voting rights, the dual class structure creates a wedge between superior shareholders' holdings of voting and cash flow rights. This wedge complicates the standard examination of the two sides of concentrated ownership, incentives and entrenchment and creates agency problems between superior and restricted

[3]The New York Times Company, December 28, 2008 Form 10-K, (filed February 26, 2009), via Edgar.

voting shareholders. In their study of eight Asian countries, Claessens, Djankov, Fan, and Lang (2002) find firm value increases as the cash flow ownership of the largest shareholder increases, but decreases as the voting rights surpass the cash flow ownership. Similarly, Lins (2003) finds in their study of 1,433 firms in 18 emerging markets that a wedge between management's voting and cash flow rights lowers firm value. Focusing specifically on United States dual class firms, Gompers, Ishii, and Metrick (2009) finds the size of the wedge is negatively related to firm value, as measured by Tobin's q. Also, Smart, Thirumalai, and Zutter (2008) examine dual class initial public offerings and find dual class firms trade at lower prices than single class firms despite finding no significant difference in accounting performance.

As evidence of the reduction in firm value associated with the wedge created by the dual class structure, Masulis, Wang, and Xie (2009) documents that as the wedge increases "corporate cash holdings are worth less to outside shareholders, CEOs receive higher levels of compensation, managers are more likely to make shareholder-value destroying acquisitions, and capital expenditures contribute less to shareholder value." In addition, Kim, Lin, Singh, and Yu (2007) find liquidity decreases after a firm implements a dual class structure through a stock split and Li, Ortiz-Molina, and Zhao (2008) find institutional ownership is lower at dual class firms. Also, Billett and Liu (2008) find the cost of debt increases as the wedge increases; however, they also find leverage increases. To explain this they also examine the cost of equity and find the cost of debt declines relative to the cost of equity due to the larger increases in the cost of equity.

In all, the evidence shows the dual class structure can have a negative effect on firm value by affecting future cash flows and by also increasing the firm's cost of capital. I hypothesize that their comes a point for some dual class firms where the costs of maintaining control by the use of the dual class structure begins to overtake the benefits. The costs of "maintaining" the structure is hampering the firm's growth and they must decide whether it is worth keeping. The firm decides to eliminate its dual class structure due to the prohibitive costs

associated with using the structure or a decrease in the benefits provided by the structure. Further, the optimal structure hypothesis implies that those firms who choose to eliminate the structure have higher costs than those who remain dual class and that those who remain dual class have lower relative costs or have more to gain by keeping control of the firm.

5.3 Sample and Descriptive Statistics

In order to find a comprehensive set of firms that eliminate their dual class structure, I first identify all firms with a dual class structure (see Chapter 4 for details of the dual class sample). Using the full sample of dual class firms, I identify 253 firms who eliminate the dual class structure. Table 5.1 lists the number of unifications by year. There is not any clear trend in elimination frequency; however, there does appear to be an increase in frequency beginning in 1992 after the exchanges began implementing dual class policies similar to SEC rule 19C-4. Since the dual class dataset begins in 1988 and a firm must first be identified as a dual class firm, the sample of unifications begin in 1989.

There are two components to the elimination of the dual class stock structure. First, the classes must be converged. In other words, the outstanding shares of the classes must be converted to one class. This can be done several ways. Some firms have a conversion clause that allows the shareholders to convert from one class to the other. For example, Express Scripts had a conversion clause allowing the Class B shares (superior with 10 votes per share) to be converted to class A shares at the holders option. So in November 2000, the sole owner of the class B shares, NYLife HealthCare Management, converted them to class A shares.[4] In other firms, there is an automatic conversion clause based on a condition that triggers the converging of the classes of stock. Zebra Technologies' certificate of incorporation stated that if the outstanding shares of class B common stock cease to represent 10% of the aggregate number of shares outstanding then they would automatically convert to class A shares. On July 1, 2003 the class B shares fell under 10% and they were automatically converted

[4]Express Scripts, April 9, 2001, Form DEF 14A, via Edgar.

to class A shares.[5] The classes of stock are also converged by means of bankruptcy and litigation. For example in 1993 Wang Labs entered bankruptcy under which the company's classes of stock were canceled and a new single class of stock was issued.[6] Firms also lose their disproportionate voting rights during mergers and reorganizations. Lastly, some firms converge their classes of stock by means of a shareholder proposal. As an example, see Appendix D which outlines the time-line and key information in regards to a unification by shareholder proposal at E-Z-EM.

Once the classes are converged, the firm asks the shareholders to approve the elimination of the class or classes of stock that have been converted. Typically, they also request shareholders approve an amendment to increase the number of shares authorized for the remaining class of stock. In most cases, these proposals are submitted to shareholders during the fiscal year the shares are converged; however, there are exceptions. For example, the class B shares of Cabot Oil & Gas Corporation were converted to class A shares in 1991, but the firm did not officially eliminate the class B stock until 2002.[7] In cases where the converging of the classes occurs years before the authorization for the shares is removed, I examine the converging of the share classes rather than when the shareholders approve the elimination of the class. Conversely, some firms convert their share classes and officially eliminate their share classes at the same time. When Florida East Coast Industries converted their class A and class B shares to a new common stock, they also eliminated the authorization of the shares.

[5]Zebra Technologies, December 31, 2003 Form 10-K (filed February 27, 2004), via Edgar.
[6]Wang Labs, June 30, 2004 Form 10-K (filed September 28, 1994).
[7]Cabot Oil & Gas Company, December 31, 2001 Form 10-K (filed February 22, 2002), via Edgar.

Based on these two components, I separate the firms who eliminate their dual class stock structure into six types. The following table outlines the six methods:

Type	Description
Shareholder Proposal	Share classes are converted and eliminated simultaneously by proposal
Superior to Restricted Conversion	Superior voting shares are converted to restricted shares
Restricted to Superior Conversion	Restricted voting shares are converted to superior shares
Automatic Conversion	Share classes are converted based on pre-existing conversion clauses
Merger/Reorganization	Share classes are converted due to merger or reorganization
Bankruptcy/Litigation	Share classes are converted or canceled due to bankruptcy or litigation

Table 5.2 cross-references the unifications by year and method. Since the research question is based on the firm's decision to eliminate the dual class structure, I focus on the two "voluntary" methods of elimination: shareholder proposals and superior to restricted conversions. The other methods are based on decisions made by restricted voting share stockholders, pre-existing conversion clauses, bankruptcy filings, or major firm reorganizations.

Table 5.3 lists summary statistics for firms with a dual class structure between 1988 to 2007. The firm years are divided into three categories: firm years prior to a voluntary unification, firm years prior to an involuntary unification, and firm years for those firms who remained dual class. Data comes from the Compustat Fundamental Annual database. Variables are defined in Appendix C. The results show unifying firms are smaller than firms non-unifying firms in terms of both assets and sales and firms that unify voluntarily are significantly larger than those whose unification is involuntary. Leverage is significantly lower for voluntary unifying firms (17.7%) versus non-unifying (23.3%) and involuntary unification (23.6%) firms. The leverage of non-unifying and involuntary unifying firms is right in line with the leverage found by Dey, Wang, and Nikolaev (2009) in their study on the bonding role of debt in dual class firms. The lower leverage for voluntary unifying firms may indicate the firms do not rely as heavily on debt for governance or may indicate their voting wedge (voting less cash flow rights) is smaller as found by Dey, Wang, and Nikolaev (2009).

Tobin's q and sales growth for voluntary firms is in line with firms who remain dual class; however, firms who involuntarily unify have significantly higher Tobin's q and sales growth. Voluntary firms spend significantly more on capital expenditures than both invol-

untary firms and those who remain dual class. Both types of unifying firms spend more on research and development than firms who remaind dual class; however, voluntary firms spend significantly more (4.3%) than involuntary firms (3.8%). As for equity issuance, both types of unifying firms are significantly different than firms who remain dual class; however, they are in opposite directions. Involuntary firms issue equity more often (72.6%) than dual class firms (68.9%); while voluntary firms issue equity significantly less (63.9%) often than the average dual class firm. This may suggest it is more costly for firms who voluntarily unify to issue equity prior to the unification.

On average, voluntary unifying firms have negative financing cash flows in line with general dual class firms; however, firms who unify involuntarily have positive financing cash flows. As far as acquisitions, voluntary firms follow the same pattern discovered with equity issuance. They execute significantly less acquisitions (30.0%) than involuntary (34.5%) and general dual class firms (35.9%). In line with this result, 26% of unifying firms state that increasing their ability to use stock as an acquisition currency is one of their reasons to unify their share classes (see Table 5.4). Despite being significantly smaller than general dual class firms in terms of assets and sales, voluntary firms have significantly larger numbers of shareholders (2.0 thousand) than general dual class firms (1.3 thousand). This may signify voluntary unifying firms have higher ownership dispersion than the average dual class firm.

In summary, the univariate results show there are significant differences between firms who unify share classes and those who keep the dual class structure. Further, the last column of Table 5.3 shows that voluntary unifying firms are significantly different than those who unify involuntarily in every variable examined.

5.4 Results

5.4.1 Reasons given in Proxy Statements

As part of the unification process, firms who unify through a shareholder proposal issue a proxy statement. Typically, the proxy outlines the steps the company has taken in the uni-

fication process and lays out the reasons why the firm desires to undertake the unification. Table 5.4 lists the 15 most common reasons firms give for eliminating their dual class structure. By far, the most common reason is to increase liquidity (70% of firms), followed by simplifying the capital structure (43%), eliminating confusion among investors and analysts (43%), and alignment of voting rights with the economic risks of ownership (43%).

Amoako-Adu and Smith (2001) has a similar table regarding 56 unifications on the Toronto Stock Exchange occurring between 1979 and 1998. However, in their table they compile their list based on a single reason for each firm and it is not clear whether the reasons are totally based on information provided by the company.[8] The three most common reasons given by Canadian firms are 1) recapitalization required as part of debt restructuring, 2) facilitate sale of control block, and 3) increase investor appeal prior to seasoned offering. For the American firms in this study, many list multiple reasons why they consolidate their share classes. For example, E-Z-EM's proxy statement outlines five reasons why their eliminate the structure (see Appendix D), so the firm will be counted for each specific reason. Table 5.4 is an accumulation of all the reasons given.

5.4.2 Share Trading and Conversion Policies

The exit hypothesis suggests firms eliminate their dual class structure to enhance the liquidity of superior voting shareholders. Part of this hypothesis is built upon the idea that the superior voting shareholders cannot easily sell their shares due to the shares not being publicly traded. Table 5.5 cross references the trading and conversion policies of the 96 firms who voluntarily eliminated their dual class structure.

For the 59 firms who use a shareholder proposal, 40 (67%) have both share classes trading publicly. This contrasts with Gompers, Ishii, and Metrick (2009) who finds that only 15% of dual class firms trade both classes publicly. In three firms, the superior voting class is the only class traded and in the remaining firms 10 have the possibility of converting superior voting

[8] In footnote A of Table 9, they state the "information was gathered from proxy circulars and newspaper articles."

shares to the publicly traded restricted voting shares. Of the 59 firms, the superior voting shareholder cannot trade their stock publicly without converting their shares in 16 firms. In five of these firms, their is no conversion clause available to superior voting shareholders. In the 36 firms where the dual class structure was eliminated due to superior voting shareholders converting their shares to restricted voting shares, the superior voting shares do not trade publicly.

In summary, in all but five of the 95 firms the superior voting shareholders could have either traded their stock publicly or converted to restricted voting shares and traded publicly. Why do these blockholders choose to completely remove the dual class structure and suffer such a great loss in voting power if they have the ability to trade their shares publicly or convert a portion of their shares to trade publicly? Based on these results, it is clear that these firms do not eliminate the dual class structure simply to allow blockholders access to the public trading market.

5.4.3 Blockholder Holdings Prior and Post Elimination

In order to further examine the issue of blockholder liquidity, I identify all blockholders who hold at least 10% voting power in the year prior to the elimination of the dual class structure. The holdings are hand collected by examining the last proxy statement issued before the elimination of the structure. By examining only those blockholders who hold 10% in the year prior to the elimination, I focus on the blockholders who were involved in making the decision to eliminate the structure. In firms with family members, I include the family as a blockholder if the sum of their holdings exceeds 10%. With the blockholders identified, I collect the number of shares (options and warrants excluded) held for each share class and calculate their respective voting power. This process is repeated for the seven years around the elimination of the structure [-3 to +3], so year -1 represents the proxy in which the blockholders were identified and year 0 represents the holdings after the elimination

of the structure. In order to accurately portray the voting power of blockholders, I record blockholder holdings of 0% if the firm is acquired.[9]

According to the exit hypothesis, firms eliminate the dual class structure to assist blockholders in selling their shares. Based on this hypothesis, I expect to find a significant drop in the holdings of the pre-elimination blockholders after elimination of the structure. The null hypothesis would be no change in voting in the years after the elimination of the structure. Comparing year -1 to 0, I expect to see a drop in the voting power of the blockholders due to the effect of the elimination of the structure. However, if blockholders maintain their holdings after the unification we should see no significant change after year 0.

Figure 5.1 illustrates and Table 5.6 shows the mean voting power of blockholders in the seven years around the elimination of the structure. As expected, there is a large drop in voting power between years -1 to 0 accounting for the elimination of the dual class structure. Combining both categories of voluntary eliminations, voting power decreases from 51.4% prior to the elimination to 26.0% in the year after the elimination. In effect, blockholders lose approximately half of their voting power during the year of the unification. The drop in voting power is even more compelling if you examine superior to restricted conversions separately. On average blockholders hold 66.0% voting power prior to the elimination and only 22.0% after the elimination. This is a net drop of 44.0%. For those firms who eliminated their structure by means of a shareholder proposal, the blockholders' hold 42.4% voting power prior to the elimination and 28.3% after the elimination. While not as large as the superior to restricted conversions, it is still quite a large loss of voting power. In the three years after the elimination, blockholders voting power continues to decrease. For all voluntary eliminations, the voting power drops from 26.0% after the elimination to 15.4% three years after the elimination. Using a paired t-test, the drop in voting power is significant between years 0 and +3 as well as between 0 and +2 (these results not shown). In addition, the tests show a significant drop in voting power each year from 0 to +3.

[9]If I remove the blockholder holdings of 0% for the 19 firms who were acquired, the results still hold.

Figure 5.2 illustrates the change in voting power relative to year 0. Although the blockholders of the superior to restricted conversion firms hold a much larger voting stake prior to the structure's demise, the blockholders' of both methods tend to reduce their voting power by about the same amount after the elimination. On average the cumulative reduction in voting power is 6.5% in year +1 and -12.2% in year +3. Paired t-tests on both the shareholder proposal and superior to restricted conversions show the drop in voting power to be significant.

In addition to the drop in voting power post-unification, the results show that the blockholders maintain approximately the same voting power prior to the unification. For example, blockholders hold on average 47.1% voting power in year -3 and 51.4% in year -1. While there is a slight increase in voting power, the increase is not statistically significant between years -3 and -1. However, when you split up the voluntary unifications, there is a significant increase in voting power for sharedholder proposals between years -3 and -1.

To summarize, the blockholders who were involved in making the decision to eliminate their dual class structure hold a relatively constant proportion of voting rights (51.4%) in the three years prior to the elimination of the dual class structure. On average, they incur a 25% drop in voting power during the year of the unification and their voting power continues to drop until they own only 15.4% three years after the unification. This dramatic change in blockholder voting power in the years around the unification provides evidence that the unification enhanced blockholder liquidity.

Lauterbach and Yafeh (2009) examine insiders' and large shareholders' voting power in 80 Israeli unifications. Their results are remarkably different than what is found in the American firms. For the two year period prior to the unification, they find an increase of two percent in voting power, similar to my results; however, post-unification they find controlling shareholders maintain their voting stakes. They find a very small drop in voting power from 69.3% to 65.7% in the year of the unification and find the controlling shareholders still hold 64.0% voting power three years after the unification. They suggest their results show the

importance of marginal voting rights beyond the 50% level and that the unifications were not associated with much change in the identity of controlling shareholders.

Why is there not a significant drop in voting power in these Israeli unifications, while there are very large drops in voting power in American firms? There is one key difference between the studies. In Lauterbach and Yafeh (2009), the sample firms unified their share classes after the implementation of a new amendment to Israeli Securities Law that restricted the issuance of inferior voting right shares. This prevented dual class firms, from raising money by issuing inferior voting shares. In effect, the Israeli government "forced" the elimination of the dual class structure. As evidence, by the beginning of 2009 only seven dual class firms remained on the Tel Aviv Stock Exchange (TASE). In my sample, the unifications occurred voluntarily by acts of the controlling shareholders and were not brought on by governmental regulation.

5.4.4 Blockholder Holdings and Seasoned Equity Offerings

An alternative explanation for the results shown in figure 5.1 and 5.2 is that the blockholders did not actually sell shares but their voting power was diluted due to new stock issues. In order to examine this, I separate the firms based on whether they issued new equity in the two years following the elimination of the dual class structure. Firms are assumed to have issued new equity if the "sale of common stock and preferred stock" variable (SSTK) is positive and merged firms are excluded from the test.

Table 5.7 shows the results of separating the firms by equity issuance. For firms without an SEO, the mean voting power decreases from 34.81% in year 0 to 30.48% in year +2 and the median voting power decreases from 30.88% in year 0 to 18.57% in year +2. Firms who issued an SEO during the two years show an average decrease in voting power from 23.01% to 16.81%. So for all voluntary eliminations regardless of equity issuance, voting power decreases in the two years after the elimination of the structure; however, the decrease between year 0 and +2 is not significant for the firms who do not issue equity.

To further examine the firms who do not issue equity, I split the sample based on the type of elimination the firm uses. For those who eliminate by means of a shareholder proposal, the drop in voting power is significant, but for those firms who eliminate by superior to restricted conversion the drop is not significant. However, the conversion sample is limited to only four firms and both the means and medians show a drop in voting power.

Since the prior analysis divides firms based strictly on the Compustat SSTK variable and not on the magnitude of the equity issuance, the results do not clearly show the effects of share dilution. To resolve this issue, I decompose the change in voting power based on a method used by Helwege, Pirinsky, and Stulz (2007). I define $\Delta\alpha_t$ to be the change in the voting power of controlling blockholders from t to $t+1$, S_t to be the number of shares held by controlling blockholders at date t, $S_{t+1} = S_t + \Delta S$ the number of shares held by controlling blockholders at date $t+1$, and N_t the firm's number of outstanding shares at date t. The voting power of controlling blockholders at t, α_t, is equal to S_t/N_t. Using this notation, I have

$$\begin{aligned}
\Delta\alpha_t &= \frac{S_{t+1}}{N_{t+1}} - \frac{S_t}{N_t} = \frac{S_{t+1}}{N_{t+1}} - \frac{S_{t+1} - \Delta S}{N_t} \\
&= \frac{\Delta S}{N_t} + \frac{S_{t+1}}{N_{t+1}} - \frac{S_{t+1}}{N_t} = \frac{\Delta S}{N_t} + \frac{S_{t+1}N_t}{N_{t+1}N_t} - \frac{S_{t+1}N_{t+1}}{N_tN_{t+1}} \\
&= \frac{\Delta S}{N_t} - \frac{S_{t+1}\Delta N}{N_{t+1}N_t} \\
&= \frac{\Delta S}{N_t} - \alpha_{t+1}\frac{\Delta N}{N_t}
\end{aligned} \tag{5.1}$$

The first term in the last line of equation 5.1 is the change in voting power explained by changes in the number of shares held by controlling blockholders and the second term is the change in blockholder voting power explained by changes in the number of shares outstanding.

Table 5.8 lists the results of the decomposition. Each column represents the change in voting power for a single year. For example, the column labeled +1 is the change in voting power from the end of fiscal year 0 to the end of year +1. The last column lists the total change in voting power from year 0 to year 3. For all voluntary eliminations, blockholders'

voting power is reduced by an average of 6.50% in the first year after the unification, followed by 2.45% and 2.98%. In total over the three years, blockholders' voting power is reduced by 12.18%. After decomposing the change, I find that approximately 67% of the reduction in voting power is attributable to a reduction in blockholder holdings, such as a sell of stock. The other third is a direct result of a dilution to voting power due to a change in the number of shares outstanding.

Separating the two types of voluntary unifications, I find the blockholders' involved in unifications by shareholder proposals lose 11.24% voting power in the three years after the unification, and approximately 60% of the reduction is due to a reduction in the blockholders' holdings. For superior conversions, I find blockholders lose 13.94% voting power after the unification, 9.03% of which is lost in the first year. After decomposition, I find approximately 78% of the reduction is due to blockholders selling their shares and only 22% is due to an increase in the number of shares outstanding.

In summary, these results clearly show that after accounting for equity issues blockholders reduce their voting power significantly in the three years following the elimination of the dual class structure. In addition, the results show the largest reduction in voting power post-unification occurs in the superior conversion firms which originally hold the tightest control on the firm. This empirical evidence combined with the consistent voting power holdings pre-unification show that the unification event triggered a significant change in the actions of blockholders.

5.4.5 Blockholders Actions Post-Elimination

As an additional test, Table 5.9 cross-references post-unification blockholder/firm actions to the type of unification. For shareholder unifications, in 16 of 59 firms the firm either undergoes a merger or the blockholders completely sell out their stake in the firm.[10] In 24

[10]In some cases, I am unable to track blockholders' stakes if they become less than 5% due to reporting limitations. So, blockholders who I have classified as "sold out" may in fact own a small portion of the firm (less than 5%).

firms, the blockholders' voting power is reduced by at least 2.5% and in only 3 firms is the the blockholders' stake increased.

For superior to restricted conversion firms, 23 out of 36 (64%) undergo a merger or the blockholders completely sell out their shares in the two years following the elimination of the dual class structure. For the remaining 13 firms, in seven the blockholders reduce their stake by at least 2.5%, in three the blockholders stake is unchanged, and only in two firms does the blockholders' stake increase by at least 2.5%.

The results for all voluntary unifications show 41% of the firms are acquired or the blockholders completely exit the firm within three years of the unification. In another 33% of the firms, the blockholders reduce their stake by at least 2.5%. In only 5% of the firms, do blockholders increase their stake in the three years after the unification.

5.4.6 Benefits and Costs of the Dual Class Structure Prior to Elimination

According to the optimal structure hypothesis, firms move from the dual class structure due to the costs of the structure exceeding the benefits provided by the structure. For this hypothesis to hold (and assuming no gross inefficiency), the costs and/or benefits must have changed prior to the elimination of the structure. As a test, I examine several characteristics of the firms in the three years prior to the elimination of the structure.

Gompers, Ishii, and Metrick (2009) finds Tobin's q decreasing as the wedge between voting and cash-flow rights increases. Masulis, Wang, and Xie (2009) identifies four specific areas where the wedge causes increases in agency costs in dual class firms and which may lead to the decreasing Tobin's q found by Gompers, Ishii, and Metrick (2009). Based on the optimal structure hypothesis, I expect the eliminating firms to have increasing costs due to the dual class structure and therefore have decreasing Tobin's q prior to the elimination of the structure.

Table 5.10 shows the mean and median Tobin's q for the three fiscal years prior to the elimination of the dual class structure. The Tobin's q calculation follows the proxy used by

Kaplan and Zingales (1997). Rather than decreasing before the elimination, mean Tobin's q actually increases from 1.78 in year -3 to 1.94 in year -1. In addition, Tobin's q, as adjusted by two-digit SIC industry, is improving in the three years before the elimination from -0.33 in year -3 to -0.20 in year -1. A paired t-test for both Tobin's q and industry-adjusted Tobin's q shows no significant change between years -3 to -1.

Billett and Liu (2008) finds that both the cost of equity and debt increase as the size of the wedge between voting and cash flow rights increases. As the cost of capital increases, the firm will find it harder to access the equity markets and to make acquisitions using the firm's equity. Based on the optimal structure hypothesis and an increasing cost of the structure, I expect to find a decrease in equity issuance and acquisitions in the years before the elimination for those firms who eliminate the dual class structure. In addition, I would expect the firms to have an increasing cost of equity prior to the elimination of the structure.

I follow Dong, Hirshleifer, Richardson, and Teoh (2006) to calculate the annualized cost of equity based on the Capital Asset Pricing Model. The time-t beta is estimated using monthly return data from CRSP of the most recent 5 years, or at least 2 years if there is not enough data. The market premium for CAPM is estimated as the average annual premium over the risk-free rate, as proxied by the 10-year treasury rate, for the CRSP value-weighted index over the preceding 30 years. The results in table 5.10 show a slight increase in the mean cost of equity; however, the median shows a small decrease and the paired t-test fails to reject the null of no change in the cost of equity. A test of the percentage of firms who issue equity or make acquisitions also shows no change between years -3 to -1.

As an additional cost of the dual class structure, Kim, Lin, Singh, and Yu (2007) find share liquidity decreases when firms move to a dual class structure. They also find liquidity increases when the firm leaves the dual class structure. Therefore, I would expect the firms who eliminate their dual class structure to have decreasing liquidity before the elimination of the structure.

I use the bid-ask spread to proxy for the liquidity in the dual class shares. Table 5.10 shows the results of the average bid-ask spread in the three years prior to the elimination to the structure. For restricted voting shares, the mean bid-ask spread decreases from 3.57% in year -3 to 3.36% in year -1. For superior voting shares, there is also a small decrease in the mean bid-ask spread. The year -3 spread is 4.39% which drops to 4.14% in year -1. The paired t-test shows there is no significant change in the spread from years -3 to -1.

The univariate tests of various proxies of the costs of the dual class structure show no evidence that costs were increasing in the years prior to the elimination of the structure. However, since the decision to eliminate the shares is a cost-benefits decision, the firm may have seen a drop in the benefits provided by the dual class structure. To test this, I examine the size of the voting power and the wedge between voting and cash flow rights in the three years prior to the elimination of the structure.

Table 5.11 shows the voting power and wedge between voting and cash flow rights actually increased in the years prior to the elimination of the structure. Blockholders' mean voting power increased from 47.1% in year -3 to 51.4% in the year prior to the unification. Blockholders' mean voting wedge increased from 16.7% in year -3.to 18.3% in year -1. Rather than a decrease in the benefits provided by the structure, the results show a significant increase in the ability to extract private benefits of control through use of the voting wedge.

As a further test of the benefits of the structure, I examine the price premium of the superior voting shares to the restricted voting shares. Previous research has shown the premium is related to the private benefits of control provided by the dual class structure. Rather than a decrease in the SVS price premium, the mean premium is 3.98% in year -3 and 5.26% in year -1. While the paired t-test shows no significant difference, the premium is moving in the opposite direction than what would be expected by the optimal structure hypothesis.

5.5 Conclusion

The dual class structure provides blockholders with an effective mechanism to maintain control of the firm indefinitely. From 1988 to 2007, 95 firms removed their dual class structure through a shareholder proposal or by the superior voting shareholders simply converting their shares. For these firms, blockholders lose an average of 50% of their voting power in the year of the unification. The empirical evidence suggests these blockholders willingly give up their voting power in order to gain personal liquidity. They maintain over 50% voting power in the three years prior to the unification but then after the unification they significantly reduce their holdings in the firm. Three years after the unification, their holdings are reduced to 15% voting power. In addition, over 40% completely exit the firm within three years. In conclusion, the evidence clearly shows unifications affect the actions of blockholders and suggest blockholders willingly trade-off large portions of their voting power in order to increase personal liquidity.

Questions remain as to why blockholders do not simply convert a small portion of the superior voting shares rather than submitting to a complete elimination of the dual class structure. Also, further work should be done on the lack of blockholder liquidity prior to the unification. Do firms, in fact, abstain from working on possible takeover bids for firms with dual class structures? What about mergers that take place before the dual class structure has been eliminated? These are questions that need to be addressed in future work.

Table 5.1: Dual Class Firms and Unifications by Fiscal Year
The full sample of firms comes from the Compustat Fundamentals Annual Dataset. Dual class and unifying firms are identified by examining Securities and Exchange Commission filings.

Year	All Firms	Dual Class Firms	% Dual Class	Eliminate Dual Class	% of Dual Eliminate
1988	4,955	350	7.1%		
1989	4,859	349	7.2%	6	1.7%
1990	4,840	356	7.4%	6	1.7%
1991	4,978	366	7.4%	6	1.6%
1992	5,198	383	7.4%	12	3.1%
1993	6,207	415	6.7%	20	4.8%
1994	6,507	447	6.9%	12	2.7%
1995	6,636	460	6.9%	13	2.8%
1996	7,066	514	7.3%	15	2.9%
1997	7,035	511	7.3%	17	3.3%
1998	6,653	500	7.5%	13	2.6%
1999	6,420	500	7.8%	17	3.4%
2000	6,259	491	7.8%	20	4.1%
2001	5,723	441	7.7%	21	4.8%
2002	5,363	409	7.6%	16	3.9%
2003	5,066	381	7.5%	19	5.0%
2004	5,001	370	7.4%	13	3.5%
2005	4,922	358	7.3%	10	2.8%
2006	4,850	333	6.9%	13	3.9%
2007	4,509	331	7.3%	4	1.2%
Firm-Years	113,047	8,265	7.3%	253	
Firms	13,879	1,103	7.9%	253	22.9%

Table 5.2: Unifications by Method

Unification methods identified by examining the firm's filings with the Securities and Exchange Commission.

	Method of Elimination						
Year	Shareholder Proposal	Superior to Restricted Conversion	Restricted to Superior Conversion	Automatic Conversion	Merger / Reorganization	Bankruptcy / Litigation	Total
1989			1	1	2	2	6
1990			1	2	3		6
1991		2		4			6
1992	6	1	1	1	1	2	12
1993	6	1	7	3	2	1	20
1994		1	4	5	1	1	12
1995	3		5	3	1	1	13
1996	5	2	4	3		1	15
1997	1	3	1	3	7	2	17
1998	4	3	1	1	3	1	13
1999	5	3	4	2	2	1	17
2000	5	3	3	4	3	2	20
2001	4	3	6	2	3	3	21
2002	4	1	4	3	4		16
2003	8	1	3	4	1	2	19
2004	2	5	1	3	2		13
2005	4	2		3	1		10
2006	1	5	2	3	2		13
2007	1			1	2		4
	59	36	48	51	40	19	253

Table 5.3: Summary Statistics

Summary statistics for firms who had a dual class structure between 1988 and 2007. Voluntary unifications are those that occurred by means of a shareholder proposal or the superior voting shares being converted to restricted voting shares. For firms who unify their share classes only the years prior to the unification are included. Variables are defined in Appendix C. P-values are Wilcoxon's non-parametric p-values for the difference between unifying firms and firms who remain dual class. The last column displays the p-values for the difference between voluntary and involuntary unifying firms. N is the number of firm years.

	Voluntary Unifications (N = 721)			Involuntary Unifications (N = 806)			Firms who remain Dual Class (N = 6,909)		Voluntary to Involuntary Unifications
Variable	Mean	Median	p-value	Mean	Median	p-value	Mean	Median	p-value
Assets (millions)	1,132.1	327.2	0.03	7,768.6	216.7	<.01	3,235.9	376.6	<.01
Sales (millions)	934.1	262.0	0.26	3,799.7	168.2	<.01	1,601.5	295.9	<.01
Leverage	0.177	0.126	<.01	0.236	0.183	0.21	0.233	0.174	<.01
Tobin's Q	2.05	1.32	0.62	2.22	1.41	<.01	1.85	1.33	<.01
Sales Growth	24.3%	8.1%	0.48	41.4%	10.4%	0.01	31.3%	8.1%	0.02
Capital Expenditures	0.070	0.049	<.01	0.060	0.039	0.30	0.059	0.038	<.01
Research & Development	0.043	0.000	0.09	0.038	0.000	<.01	0.027	0.000	<.01
Equity Issuance Dummy	0.639	1.000	0.01	0.726	1.000	0.03	0.689	1.000	<.01
Net Financing Dummy	-0.096	-1.000	0.17	0.183	1.000	<.01	-0.043	-1.000	<.01
Acquisitions Dummy	0.300	0.000	<.01	0.345	0.000	0.44	0.359	0.000	0.06
Stockholders (thousands)	20.2	2.0	<.01	24.0	1.2	<.01	9.9	1.3	<.01

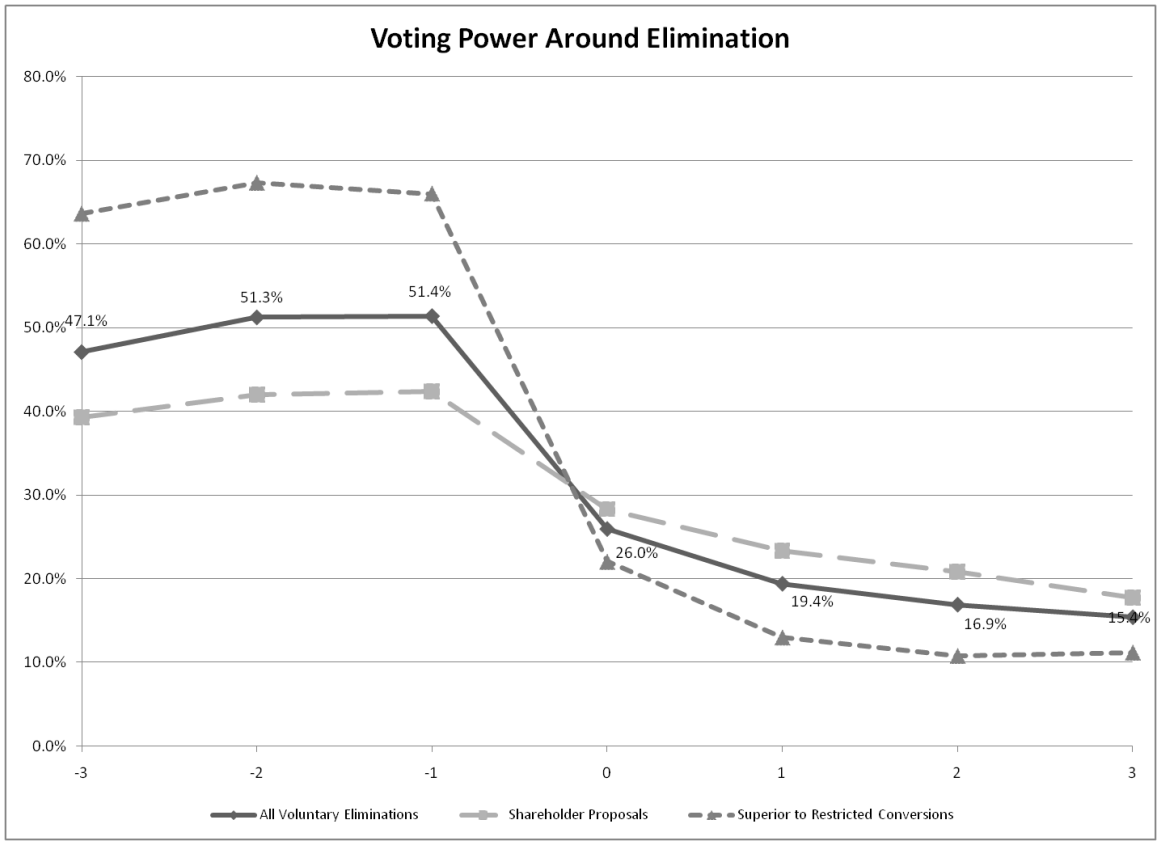

Figure 5.1: Voting Power Around Unification

The percentage of voting power for blockholders around the elimination of the dual class structure. Blockholders are identified as those individuals and groups who hold more than a 10% voting stake in year -1, the year prior to the the elimination of the dual class structure. Data comes from proxy and annual report filings with the Securities and Exchange Commission.

Table 5.4: Top Reasons for Eliminating the Dual Class Structure

Reasons identified by examining the proxy statements of firms who eliminated their dual class structure by means of a shareholder proposal. Of the 59 firms who used shareholder proposals, 54 identified specific reasons for eliminating the structure.

Reason	**Firms**	**% Firms**
Increase liquidity	38	70%
Simplify capital structure	23	43%
Eliminate confusion among investors and analysts	23	43%
Alignment of voting rights with the economic risks of ownership	23	43%
Greater flexibility and efficiency in raising capital	22	41%
Increase analyst coverage and investor interest	14	26%
Reduce administrative costs	14	26%
Eliminate negative impact on price caused by the dual class structure	14	26%
Increase ability to use stock as acquisition currency	14	26%
Conforms capital structure to most other companies	10	19%
Simplify voting procedures	7	13%
Attract investment by institutional investors that do not purchase dual class securities	7	13%
Trend away from dual class	5	9%
Eliminate anti-takeover property	3	6%
Eliminate control block	3	6%

Table 5.5: Trading and Conversion Clauses

This table cross references the trading and conversion policies of the firms who voluntarily eliminated their dual class structure. Trading information comes from CRSP. Conversion clause information comes from Securities and Exchange Commission filings.

Conversion Clause	RVS Trades Publicly	SVS Trades Publicly	Both Classes Trade Publicly	Total
Shareholder Proposal Eliminations				
No Conversion Clause	5	1	25	31
Superior to Restricted	8		10	18
Restricted to Superior			1	1
Convert Both Ways		1		1
Conditional Restricted to Superior	1	1	3	5
Conditional Superior to Restricted	2		1	3
	16	3	40	59
Superior to Restricted Conversions				
Superior to Restricted	36			36

Table 5.6: Blockholder Holdings Around the Unification

The percentage of voting power and equity ownership for blockholders around the elimination of the dual class structure. Blockholders are identified as those individuals and groups who hold more than a 10% voting stake in year -1, the year prior to the the elimination of the dual class structure. P-value represents the paired t-test p-value for testing the difference in holdings of one year to the previous year. Data comes from proxy and annual report filings.

		-3	-2	-1	0	+1	+2	-3
All Voluntary Eliminations								
Voting Power	Mean	47.1%	51.3%	51.4%	26.0%	19.4%	16.9%	15.4%
	Median	52.8%	57.1%	56.2%	18.9%	11.4%	7.8%	7.2%
	N	81	93	95	95	94	94	86
	p-value		0.4372	0.4669	<.0001	<.0001	<.0001	0.0065
Equity Ownership	Mean	30.40%	34.40%	33.00%				
	Median	24.40%	32.30%	27.90%				
	N	81	93	95				
	p-value		0.1974	0.0471				
Shareholder Proposals								
Voting Power	Mean	39.3%	42.0%	42.4%	28.3%	23.3%	20.8%	17.7%
	Median	38.9%	44.9%	44.2%	22.2%	15.1%	14.1%	11.1%
	N	55	59	59	59	58	58	56
	p-value		0.0665	0.6740	<.0001	0.0029	0.0002	0.0247
Equity Ownership	Mean	26.80%	29.70%	29.30%				
	Median	21.00%	24.50%	22.50%				
	N	55	59	59				
	p-value		0.0762	0.729	0.6256			
Superior to Restricted Conversions								
Voting Power	Mean	63.5%	67.3%	66.0%	22.0%	13.0%	10.8%	11.2%
	Median	70.9%	72.9%	70.6%	13.3%	0.2%	0.0%	0.0%
	N	26	34	36	36	36	36	30
	p-value		0.0336	0.0892	<.0001	0.0058	0.0653	0.0307
Equity Ownership	Mean	37.90%	42.60%	39.10%				
	Median	39.90%	44.70%	40.40%				
	N	26	34	36				
	p-value		0.0587	0.0048	<.0001			

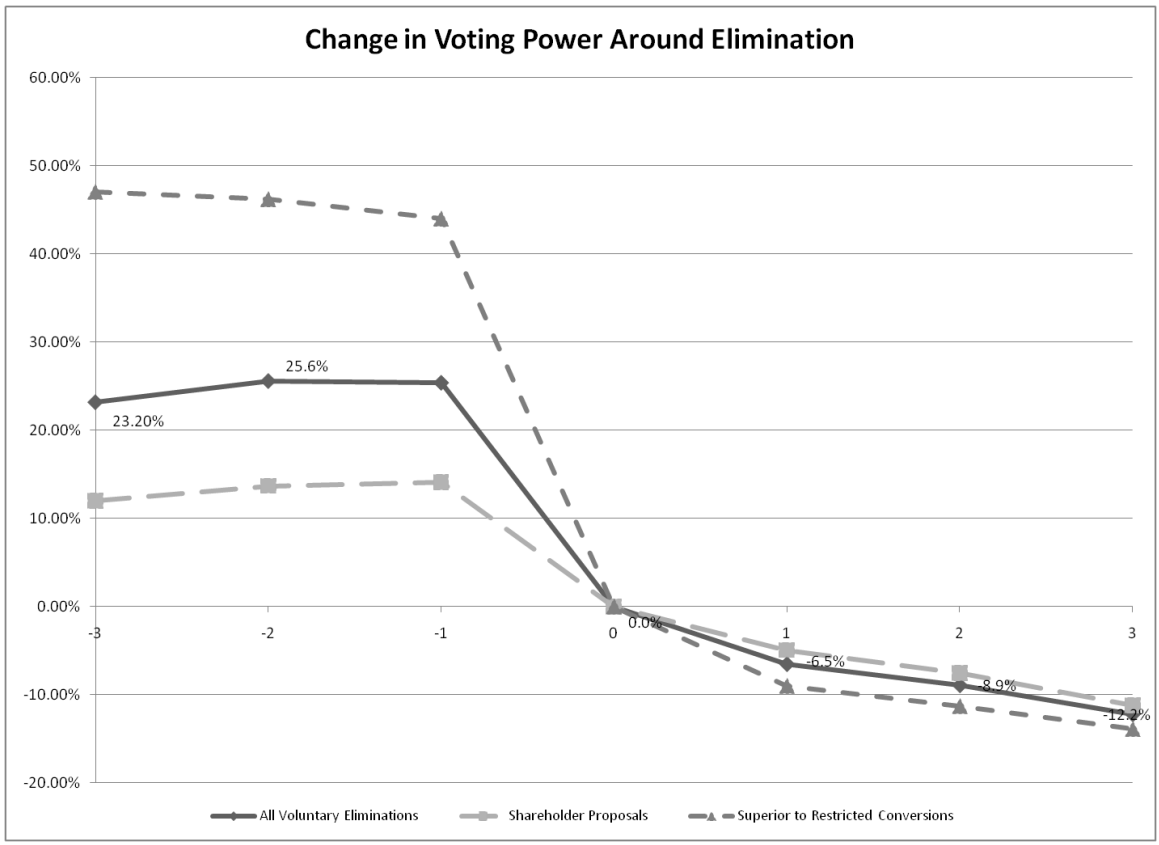

Figure 5.2: Change in Voting Power Around Unification

The change in voting power for blockholders relative to their holdings after the elimination of the dual class structure. Blockholders are identified as those individuals and groups who hold more than a 10% voting stake in year -1, the year prior to the the elimination of the dual class structure. Data comes from proxy and annual report filings with the Securities and Exchange Commission.

Table 5.7: Voting Power After Elimination by SEO

This table lists the voting power of blockholders after the elimination of the dual class structure. The firms are separated based on whether they issued a seasoned equity offering (SEO) in the two years after the unification. The firm is assumed to have an SEO if Compustat has a positive value for sales of common or preferred stock (Compustat variable SSTK). Voting power is the percent voting ownership for blockholders identified in year -1 (the year prior to the unification). Voting power figures come from Securities and Exchange Commission filings. The null hypothesis for the paired t-test is that the difference in year 0 and year +2 is zero.

		-2	-1	0	+1	+2	Year 0 to +2 Paired t-test p-value
All Voluntary Eliminations							
Firms without SEO	Mean	53.79%	55.29%	34.81%	32.84%	30.48%	0.2767
	Median	62.85%	60.46%	30.88%	28.66%	18.57%	
	N	14	14	14	13	13	
Firms with SEO	Mean	49.20%	51.90%	23.01%	19.29%	16.81%	<.0001
	Median	48.57%	48.88%	16.52%	12.26%	10.55%	
	N	62	65	65	65	65	
Shareholder Proposals							
Firms without SEO	Mean	49.14%	49.42%	30.83%	28.57%	27.14%	0.0680
	Median	54.78%	55.31%	30.40%	26.76%	18.57%	
	N	10	10	10	9	9	
Firms with SEO	Mean	40.76%	40.73%	25.95%	23.25%	20.30%	0.0001
	Median	41.78%	40.46%	21.74%	15.59%	14.01%	
	N	40	42	42	42	42	
Superior to Restricted Conversions							
Firms without SEO	Mean	65.41%	69.98%	44.72%	42.43%	38.00%	0.6510
	Median	85.29%	86.19%	50.93%	43.59%	34.39%	
	N	4	4	4	4	4	
Firms with SEO	Mean	64.54%	62.90%	17.65%	12.05%	10.42%	0.0445
	Median	71.68%	67.57%	7.82%	0.43%	0.00%	
	N	22	23	23	23	23	

Table 5.8: Decomposition of Change in Voting Power After Unification

This table shows the decomposition of the change in voting power for voluntary unifications between 1988 to 2007. The change in voting power is decomposed into two parts: 1) changes due to blockholder actions (buying/selling shares) and 2) changes due to changes in the number of shares outstanding. I use the method established by Helwege, Pirinsky, and Stulz (2007) to decompose the change in voting power. Each column represents the voting power change in one year, so column +1 represents the change in voting power from year 0 (the fiscal year after the unification) to year +1. The last column represents the change in voting power from the end of year 0 to the end of year +3. Voting power is the percent voting ownership for blockholders identified in year -1 (the year prior to the unification). Voting power figures come from Securities and Exchange Commission filings.

		+1	+2	+3	0 to +3
All Voluntary Eliminations					
Total Change in Voting Power	Mean	-6.50%	-2.45%	-2.98%	-12.18%
Change due to Blockholders	Mean	-4.47%	-1.21%	-2.22%	-8.18%
Change due to Number of Shares	Mean	-2.03%	-1.24%	-0.76%	-4.00%
	N	94	94	86	86
Shareholder Proposals					
Total Change in Voting Power	Mean	-4.92%	-2.57%	-3.67%	-11.24%
Change due to Blockholders	Mean	-3.47%	-0.75%	-2.55%	-6.71%
Change due to Number of Shares	Mean	-1.46%	-1.82%	-1.10%	-4.53%
	N	58	58	56	56
Superior to Restricted Conversions					
Total Change in Voting Power	Mean	-9.03%	-2.25%	-1.69%	-13.94%
Change due to Blockholders	Mean	-6.09%	-1.95%	-1.60%	-10.92%
Change due to Number of Shares	Mean	-2.95%	-0.30%	-0.09%	-3.02%
	N	36	36	30	30

Table 5.9: Blockholders/Firm Changes after Unification

This table outlines the actions taken by blockholders within the first three fiscal years after the elimination of the dual class structure. The change in voting power is measured from year 0, the fiscal year end after the elimination, to year +3. Blockholders are identified as those individuals and groups who hold more than a 10% voting stake in year -1, the year prior to the the elimination of the dual class structure. Data comes from proxy statement and annual report filings.

	Shareholder Proposals		Superior Conversions		All Voluntary Unifications	
Action	N	%	N	%	N	%
Firm is Merged or Blockholders Sell Out Completely	16	27.1%	23	63.9%	39	41.1%
Blockholders Decrease Voting Power (at least 2.5%)	24	40.7%	7	19.4%	31	32.6%
Blockholders Voting Power Unchanged	10	16.9%	3	8.3%	13	13.7%
Blockholders Increase Voting Power (at least 2.5%)	3	5.1%	2	5.6%	5	5.3%
No 10% Blockholders Identified in Year -1	5	8.5%	1	2.8%	6	6.3%
Firm files for Bankruptcy	1	1.7%	0	0.0%	1	1.1%
Total	59	100.0%	36	100.0%	95	100.0%

Table 5.10: Pre-Unification Costs

This table examines characteristics of the firms who "voluntarily" eliminated the dual class structure. Year -1 represents the fiscal year before the elimination occurred. Data comes from CRSP, Compustat, and firm proxy statements. *Tobin's q* is calculated as the book value of assets plus the market value of common stock less the book value of common stock and deferred taxes all divided by the book value of assets (Kaplan and Zingales (1997)). Industry is defined by two-digit SIC code. *Cost of equity* is the annualized cost of equity based on the Capital Asset Pricing Model (follow Dong et al. (2006)). The time-t beta is estimated using monthly return data from CRSP of the most recent 5 years, or at least 2 years if there is not enough data. The market premium for CAPM is estimated as the average annual premium over the risk-free rate, as proxied by the 10-year treasury rate, for the CRSP value-weighted index over the preceding 30 years. *Equity Issuance* and *Acquisitions* are dummy variables based on whether equity was issued or acquisitions made during the fiscal year. *Bid-Ask Spread* is the average daily bid-ask spread for the fiscal year. The paired t-test p-value tests whether year -1 values are significantly different from year -3 values.

		Fiscal Year			Year -1 to -3
Variable		-3	-2	-1	Paired t-test p-value
Tobin's q	Mean	1.78	1.79	1.94	0.9017
	Median	1.31	1.36	1.41	
	N	80	84	88	
Tobin's q (Industry-Adjusted)	Mean	-0.33	-0.32	-0.20	0.8275
	Median	-0.46	-0.42	-0.35	
	N	80	84	88	
Cost of Equity	Mean	12.44%	12.80%	12.44%	0.9684
	Median	12.44%	12.17%	12.01%	
	N	60	71	83	
Equity Issuance	Mean	0.66	0.71	0.72	0.2272
	Median	1.00	1.00	1.00	
	N	94	95	95	
Acquisitions	Mean	0.32	0.33	0.33	1.0000
	Median	0.00	0.00	0.00	
	N	94	95	965	
Bid-Ask Spread (RVS)	Mean	3.57%	3.98%	3.36%	0.9737
	Median	2.25%	2.09%	2.10%	
	N	72	78	85	
Bid-Ask Spread (SVS)	Mean	4.39%	4.41%	4.14%	0.2634
	Median	2.37%	2.30%	2.50%	
	N	36	38	40	

Table 5.11: Pre-Unification Benefit Proxies

This table examines characteristics of the firms who "voluntarily" eliminated the dual class structure. Year -1 represents the fiscal year before the elimination occurred. Data comes from CRSP, Compustat, and firm proxy statements. *Voting Power* is the voting percentage held by blockholders identified in the year before the elimination (year -1). *Wedge* is the difference between the voting and cash-flow rights for blockholders identified in year -1. *SVS Price Premium* is the price premium in percentage terms of the superior voting stock. The paired t-test p-value tests whether year -1 values are significantly different from year -3 values.

		Fiscal Year			Year -1 to -3
Variable		-3	-2	-1	Paired t-test p-value
Voting Power	Mean	47.1%	51.3%	51.4%	0.0024
	Median	52.8%	57.1%	56.2%	
	N	81	93	95	
Wedge	Mean	16.7%	16.9%	18.3%	0.0057
	Median	7.4%	9.8%	16.5%	
	N	81	93	95	
SVS Price Premium	Mean	3.98%	4.26%	5.26%	0.5604
	Median	1.00%	2.50%	2.61%	
	N	35	37	38	

Chapter 6

Effects of Unification

6.1 Introduction

The dual class structure potentially allows a family or institution to maintain control of the firm indefinitely; however, there are occasions where dual class firms eliminate the disparate voting rights and move to one vote per share. In this chapter, I add to the literature by using 95 American dual class share unifications to examine the initial impact and post-transaction effects of the unification. I find there is a positive and significant announcement effect for restricted voting shares and for both classes combined; however, I find the announcement effect for superior voting shares to be insignificant. In the two years after the unification, I find no significant change in firm value (as measured by Tobin's q) or in operating performance. Lastly, I find a significant increase in liquidity after the elimination of the dual class stock structure.

The rest of the chapter is organized as follows. In Section 2, layout the hypotheses. In Section 3, I discuss the unification sample. In section 4, I review the results and Section 5 concludes.

6.2 Hypotheses

The following three subsections outline the hypotheses regarding the effects of the elimination of the dual class stock structure.

6.2.1 Unification Announcement Effect

In order for a firm to unify their share classes, they must first have implemented the dual class structure. While most firms now implement the structure at their initial public offering, during the 1980s and early 1990s many firms implemented the structure through a dual class recapitalization. The announcement effects of the original dual class recapitalizations may shed light on the expected unification announcement effect. The early research on recapitalizations was mixed, Partch (1987), Cornett and Vetsuypens (1989), and Mikkelson and Partch (1994) found positive announcements returns of between 0.60% to 1.24%. However, Jarrell and Poulsen (1988) found a negative announcement effect of -0.82%.[1] In the largest study to date on recapitalizations, Dimitrov and Jain (2006) examine 178 recapitalizations between 1979 to 1998 and find a positive and insignificant announcement effect of 0.06% for the three-day window (-1 to +1). In summary, the results on the initial announcement effect of the dual class structure's implementation are mixed and inconclusive.

During the original recapitalization announcement it is unclear as to whether there would be an advantage or disadvantage to common stockholders; however, at the unification announcement there are clearly some stockholders who will benefit. When a dual class stock unifies it shares, there are two classes of stock, the restricted and superior voting shares. For the restricted voting shares, the unification means they will have more voting rights and will no longer be inferior stockholders. Therefore, I would expect a positive and significant increase in the value of restricted voting shares at the unification announcement.

Hypothesis 1: There is a positive and significant unification announcement effect for restricted voting shares.

For the superior voting shares, they are actually seeing a decrease in their voting power. So, I would expect to see a decrease in stock price. However, many superior voting shares have high levels of illiquidity and the unification is expected to increase the share liquidity.

[1] They find the largest negative returns occur in the most recent recapitalizations (June 1986 - May 1987).

Due to the confounding effects of increased liquidity and decreased voting power, I cannot make a prediction as to the announcement effect of superior voting shares. Since the majority of a dual class firm's market capitalization is attributed to the restricted voting class, I would expect a positive and significant increase in the firm's market capitalization at the unification announcement.

Hypothesis 2: There is a positive and significant unification announcement effect for the firm's total market capitalization.

6.2.2 Post-Unification Firm Value and Operating Performance

The anti-takeover nature of the dual class structure, potentially allows for management entrenchment and expropriation of minority shareholders. Masulis, Wang, and Xie (2009) identify four sources of extraction of benefits in dual class firms that lead to depressed firm value. Also, Gompers, Ishii, and Metrick (2009) find firm value decreases as the wedge between control and cash-flow rights increases and Villalonga and Amit (2009) find the dual class structure has a negative impact on family firm values (as measured by industry-adjusted Tobin's q). Based on the prior literatures findings that the dual class structure causes a reduction in firm value and leads to increased agency costs through the conflicts between superior and restricted voting shareholders, I would expect to see an increase in firm value and operating performance in the years after the elimination of the dual class stock structure.

Hypothesis 3: There is a positive and significant increase in firm value and operating performance after the elimination of the dual class structure.

6.2.3 Post-Unification Liquidity

A common reason given in firm proxy statements for unifying the dual class structure is the expected increase in share liquidity (Maury and Pajuste (2007)).[2] This reasoning implies the

[2]See Appendix D - Sample Unification

dual class structure decreases share liquidity. Kim, Lin, Singh, and Yu (2007) confirm this by finding increases in effective spreads and price impacts for both superior and restricted voting shares after the dual class recapitalization. These increases in illiquidity can lead to higher expected returns/cost of capital (Amihud and Mendelson (1986)). Based on Kim, Lin, Singh, and Yu (2007) and firms commonly giving increased liquidity as a reason to unify their share classes, I expect to find an increase in liquidity after the dual class unification.

Hypothesis 4: There is a positive and significant increase in share liquidity after the elimination of the dual class structure.

6.3 Data and Sample Description

In order to find a comprehensive set of firms that eliminate their dual class structure, I first identify all firms with a dual class structure (see Chapter 4 for the dual class sample details). The sample contains 1,103 dual class firms and 8,265 firm years between 1988-2007. From this sample, I identify 253 firms which left the dual class structure and continued in the Compustat Fundamental Annual database. Of these 253 unifying firms, I find 95 firms that unified their shares by means of a shareholder proposal or by the superior voting shareholder simply converting the balance of the superior voting shares (see Section **??** for more information on the unification methods). Table 5.2 lists the unifications by year and by method. The unifications are evenly distributed between years 1989-2007 with a maximum of 21 unifications in 2001. For each unification, stock price data is collected for both the restricted and superior voting shares (if traded publicly) from the Center for Research in Security Prices (CRSP). Accounting information is collected from the Compustat Fundamental Annual Database maintained by Wharton. Table 6.1 lists the number of unifications by two-digit SIC code. The "voluntary" unifications are distributed across 42 two-digit SIC codes, with a maximum of eight unifications in the instruments and related products (two-digit SIC 38) and business services (two-digit SIC 73) industries.

6.4 Results

6.4.1 Unification Announcement Event Study

For the sample of 95 voluntary unifications, I am able to identify an initial announcement date for 92 firms. The announcement dates are identified from Factiva, Lexis-Nexis, or firm proxy statements. Once the announcement date is identified, I examine the announcement for potential conflicting firm events. For example, J.M. Smucker Company announced on May 16, 2000 it would seek shareholder approval for a unification; however, the firm simultaneously presented downward earnings guidance. Of the 92 firms with announcement dates identified, 47 firms had conflicting events around the unification announcement. The remaining 45 firms I designate as "clean" announcements. In order to analyze the unification announcement effect, I perform a standard event study analysis on the 92 unification announcements. I separately perform the analysis on the restricted (RVS) and superior (SVS) voting shares. I use the market model with the CRSP value-weighted market portfolio as the market proxy and days -250 to -6 as the estimation period. I examine the three-day (-1 to +1) event window to be consistent with previous studies.

Panel A of Table 6.2 contains the event study results for both the shareholder proposal and superior conversion unifications. Results are first reported for all 92 unifications with announcement dates identified. The restricted voting shares have a positive and significant announcement reaction of 2.93%, and the superior voting shares have a much larger positive and significant reaction of 5.87%. When the shares are combined, the firms' market capitalization increases by 4.82% in the three-day event window. However, when examining just the "clean" announcements, the results are slightly different. The restricted voting shares still enjoy a positive and signification reaction of 2.5%, but the superior voting shares' reaction becomes an insignificant 1.42%. When the restricted and superior voting shares are combined the results remain significant. The market capitalization increases by 3.55% in the three-day window around the unification announcement.

In order to examine the announcement effects of each elimination type, I examine each separately. In Panel B of Table 6.2, I examine the announcement effects for firms who unify by means of a shareholder proposal. For the restricted voting shares, there is a positive and significant announcement effect of 3.78%. After eliminating conflicting events, the size of the cumulative abnormal return decreases to 2.58%, but remains significant. For the superior voting share, there is a positive and significant reaction for the entire sample of shareholder proposal unifications; however after eliminating firms with conflicting events, the cumulative abnormal return drops to 1.42% and loses its significance. The combined market capitalization effect at the unification announcement is positive and significant with an increase of 2.78% for all unifications implemented by shareholder proposal. However, the "clean" shareholder unifications have an insignificant impact of the firm's market capitalization.

Panel C of Table 6.2 lists the results for firms who unified their share classes by the superior voting shareholder converting his/her shares. For these firms the restricted voting shares have an insignificant three-day abnormal return of 1.56%, but after firms with conflicting events are eliminated the return increases to 2.29% and is significant. Since these firms have no superior voting shares trading publicly there are no results for superior voting shares and for the combined market capitalization.

In summary, I find support for both hypotheses 1 and 2. I find a positive and significant announcement effect of 2.5% for restricted voting shares and a 3.55% increase in market capitalization during the announcement. For the superior voting shares, I find an insignificant positive announcement return of 1.42%.

6.4.2 Post-Unification Analysis of Firm Characteristics

In order to further test the value recovery and optimal structure hypothesis, I use the following specification (Pagano, Panetta, and Zingales 1998) to examine firm value, performance, and other firm characteristics after the unification:

$$y_{it} = \alpha + \sum_{j=0}^{3} \beta_j UNI_{t-j} + \beta_4 UNI_{t-n} + u_i + d_t + \epsilon_{it}$$

where u_i and d_t are firm-specific and fiscal-year specific effects. UNI_{t-j} are dummy variables equal to one if year $t-j$ was the unification year, UNI_{t-n} is a dummy variable equal to one if the unification took place more than three years before. By using a fixed-effects model, I use each company before the unification as a control for itself after the unification. Table 6.3 outlines the results for all voluntary unifications.

In terms of leverage, the results show unifying firms significantly increase firm leverage in the two years after the unification. In terms of performance, the results show there is no significant change in return on assets or return on equity after the unification. In addition, I find there is no significant change in Tobin's q after the unification. These results contrast those found in Maury and Pajuste (2007), who find a positive and significant increase in industry-adjusted market-to-book in year 0 and +1. In addition, the results contrast studies that show the dual class structure has a negative effect on firm value, such as Gompers, Ishii, and Metrick (2009) and Villalonga and Amit (2009).

I also find no significant change in sales growth, capital expenditures, or research and development after the unification. In contrast, Maury and Pajuste (2007) find a positive and significant increase in sales growth after the unification. In terms of equity issuance, the results show a significant increase in firms issuing equity in the year of the unification and the year following the unification. However, there is no significant change in the net financing of these firms. Also, I find a significant increase in acquisition activity in the year of the unification.

Since the two types of voluntary unifications may have different effects on the firm, I examine post unification firm characteristics for each type of unification. Table 6.4 outlines the results by unification type. In terms of leverage, firms who unify by shareholder proposal significantly increase leverage in the years after the unification; whereas, those who unify by means of superior conversion do not increase firm leverage. In terms of capital expenditures, I find superior conversion firms significantly decrease their capital expenditures after the unification and shareholder proposed firms do not change their capital expenditures. Both

types of unifying firms have a significant increase in equity issuance; however, only superior conversion firms have an increase in acquisition activity post-unification.

In summary, the results show no significant change in firm value and operating performance post-unification. However, the results clearly show significant increases in leverage and equity issuance after the unifications.

6.4.3 Liquidity Analysis

I use the bid-ask spread as a proxy for share liquidity. I examine the 50, 100, and 250-day window before the unification announcement and the 50, 100, and 250-day window after the implementation of the single class structure. The pre-announcement windows end on day -5, with day zero being the announcement day, and the post-implementation windows begin on day 5, with day zero being the the first day the single class is traded. Firms with share prices less than $5 are excluded.

Table 6.5 outlines the results of the liquidity analysis. Using the bid-ask spread as a measure of liquidity, I find consistent reductions in the means and medians for both restricted and superior voting shares across all time windows. In Panel A, I examine both types of voluntary unifications together. The results show increasing liquidity (lower bid-ask spreads) across all time frames; however, the reduction in restricted voting shares is not significant. For superior voting shares, the reduction in the bid-ask spread is significant for each time period. As an example, in the 100 day pre-announcement window (-105 to -5) the average bid-ask spread for superior voting shares was 3.37%; however, in the 100 day post-implementation window (5 to 105) the average bid-ask spread had decreased to 1.87%.

Since the shareholder unifications occur in a much different manner than superior conversion unifications, I examine the liquidity effects of the two types separately. In Panel B, I examine unifications which occurred by means of a shareholder proposal. In these unifications, both the restricted and superior voting shares show a significant increase in liquidity. For example, restricted voting shares had an average bid-ask spread of 2.90% in the 100

day pre-announcement window. After the implementation of the single class structure, the average bid-ask spread dropped to 1.77%.

For those firms where the superior voting shareholder simply converted his/her remaining shares, there is no significant increase in liquidity as measured by the bid-ask spread. Panel C outlines the results for the three time frame. In each time frame, the average bid-ask spread actually increased; however, the increase is insignificant.

The results of the liquidity analysis show firms who unify their dual share classes by means of a shareholder proposal significantly increase the liquidity of their stock and confirms why companies commonly use liquidity as an explanation when moving to a single class of stock. In the same vein, Li, Ortiz-Molina, and Zhao (2008) find institutional investment increases after the unification and Dittmann and Ulbricht (2008) find liquidity helps explain the variation in abnormal returns during the unification announcement. Also, Ehrhardt, Kuklinski, and Nowak (2005) find a significant reduction in bid-ask spreads following German unifications.

6.5 Conclusion

The dual class structure allows for a separation between two of the key rights Alchian and Demsetz (1972) identified as necessary for owners of a modern corporation. This separation of voting and cash-flow rights has again become an important issue in the investment community as evidenced by firms such as the New York Times, Google, and Dow Jones. In this study, I examine the firm effects for 95 American dual class unifications. I find a positive and significant market reaction to the elimination of the dual class structure. In addition, I find no significant change in firm value and conflicting operating performance results after the elimination of the structure. I also add to the literature by demonstrating a significant increase in liquidity for American firms who leave the dual class structure.

Table 6.1: Number of Unifications by Two-Digit SIC Code
This table illustrates the two digit SIC code industry distribution for the 95 unifications identified in this study.

SIC Code	Industry Description	Shareholder Proposals	Superior Conversions
10	Metal Mining	1	0
13	Oil and Gas Extraction	3	0
20	Food and Kindred Products	2	0
22	Textile Mill Products	1	0
26	Paper and Allied Products	1	0
27	Printing and Publishing	1	1
28	Chemicals and Allied Products	3	3
29	Petroleum Refining And Related Industries	1	0
31	Leather and Leather Products	0	1
32	Stone, Clay, Glass, And Concrete Products	1	0
33	Primary Metal Industries	1	0
34	Fabricated Metal Products	0	1
35	Industrial Machinery And Equipment	1	1
36	Electronic And Other Electrical Equipment	5	1
37	Transportation Equipment	1	1
38	Instruments and Related Products	5	3
40	Railroad Transportation	1	0
42	Motor Freight Transportation and Warehousing	1	0
45	Transportation By Air	2	0
48	Communications	1	2
49	Electric, Gas and Sanitary Services	1	2
50	Wholesale Trade-durable Goods	1	0
51	Wholesale Trade-non-durable Goods	0	1
54	Food Stores	1	1
55	Automotive Dealers and Gasoline Service	0	1
57	Home Furniture, Furnishings and Equipment Stores	1	0
58	Eating And Drinking Places	2	0
59	Miscellaneous Retail	1	1
60	Depository Institutions	3	0
61	Nondepository Credit Institutions	1	2
62	Security And Commodity Brokers	1	0
63	Insurance Carriers	5	0
64	Insurance Agents, Brokers, and Service	0	1
65	Real Estate	1	1
67	Holding And Other Investment Offices	1	0
72	Personal Services	0	1
73	Business Services	2	6
78	Motion Pictures	2	0
79	Amusement and Recreation Services	0	1
80	Health Services	1	1
82	Educational Services	0	1
87	Engineering and Management Services	3	2

Table 6.2: Unification Event Study Results

This table outlines the event study results of the unification of dual class shares for the firms who used a shareholder proposal. The market model is estimated using CRSP's value-weighted market portfolio as the market proxy and days -250 to -6 as the estimation period. The change in market capitalization was calculated as follows:

$$\frac{(P_{RVS,+t} * SHRS_{RVS,+t}) + (P_{SVS,+t} * SHRS_{SVS,+t})}{(P_{RVS,-t} * SHRS_{RVS,-t}) + (P_{SVS,-t} * SHRS_{SVS,-t})} - 1$$

where P is price, $SHRS$ is shares outstanding, RVS represents the restricted voting class and SVS the superior voting class, $+t$ is the end of the event window and $-t$ is the beginning of the event window. If only one share class trades publicly, the change in market capitalization is based solely on the one publicly traded class. Panel A lists the event study results for the restricted voting share class. Panel B lists the event study results for the superior voting share class. Panel C shows the change in total market capitalization (restricted and superior voting shares) for the specified event window. *, **, and *** denote the results are significantly different from zero at the 10%, 5%, and 1% levels, respectively.

Panel A: All Voluntary Unifications

	All				Clean			
		Mean		Median		Mean		Median
Class	N	CAR	p-value	CAR	N	CAR	p-value	CAR
RVS	89	2.93%**	0.027	1.07%	43	2.50%***	0.008	0.74%
SVS	42	5.87%*	0.056	2.44%	24	1.42%	0.340	0.70%
Combined	92	4.82%***	0.002	1.54%	45	3.55%*	0.054	1.03%

Panel B: Shareholder Unifications

	All				Clean			
		Mean		Median		Mean		Median
Class	N	CAR	p-value	CAR	N	CAR	p-value	CAR
RVS	55	3.78%***	0.008	1.31%	31	2.58%**	0.038	0.59%
SVS	42	5.87%*	0.056	2.44%	24	1.42%	0.340	0.70%
Combined	58	2.78%***	0.007	1.54%	33	1.24%	0.118	0.74%

Panel C: Superior Conversions

	All				Clean			
		Mean		Median		Mean		Median
Class	N	CAR	p-value	CAR	N	CAR	p-value	CAR
RVS	34	1.56%	0.552	0.40%	12	2.29%**	0.048	1.32%

Table 6.3: Post-Unification Analysis

For each of the variables listed I estimate the following specification:

$$y_{it} = \alpha + \sum_{j=0}^{3} \beta_j UNI_{t-j} + \beta_4 UNI_{t-n} + u_i + d_t + \epsilon_{it}$$

where u_i and d_t are firm-specific and fiscal-year specific effects. UNI_{t-j} are dummy variables equal to one if year $t-j$ was the unification year, UNI_{t-n} is a dummy variable equal to one if the unification took place more than three years before. By using a fixed effects model I am using each company before the unification as a control for itself after the unification. The table only reports the coefficients on the UNI dummy variables. Variable definitions are given in Appendix C. Financial variables are winsorized at the 1st and 99th percentiles. Heteroskedasticity robust standard errors are reported in parenthesis. *, **, and *** denote the results are significantly different from zero at the 10%, 5%, and 1% levels, respectively. The second to the last column reports the p-value of an F-test of the hypothesis that the sum of the coefficients for dummies for year zero to two are equal to zero. The last column reports the p-value of an F-test of the hypothesis that the sum of the coefficients of all post-unification dummies are equal to zero.

Variable	Firm Years	Year 0	Year +1	Year +2	F-test Years 0-2
Leverage	1399	0.008	0.028*	0.035*	0.039**
		(0.014)	(0.016)	(0.015)	
Return on Assets	1403	0.001	0.017	0.001	0.659
		(0.023)	(0.018)	(0.019)	
Return on Equity	1403	0.017	-0.158	0.215	0.725
		(0.076)	(0.115)	(0.116)	
Tobin's Q	1212	0.195	-0.021	-0.041	0.613
		(0.127)	(0.114)	(0.114)	
Sales Growth	1286	0.021	0.022	-0.100	0.685
		(0.069)	(0.077)	(0.061)	
Capital Expenditures	1345	-0.005	-0.006	-0.007	0.126
		(0.005)	(0.005)	(0.006)	
Research & Development	1410	-0.004	0.000	-0.001	0.646
		(0.006)	(0.005)	(0.006)	
Equity Issuance Dummy	1410	0.119***	0.071*	0.073	0.003***
		(0.040)	(0.042)	(0.046)	
Net Financing Dummy	1403	0.114	-0.045	0.074	0.530
		(0.100)	(0.107)	(0.123)	
Acquisitions Dummy	1410	0.089*	0.012	0.012	0.289
		(0.046)	(0.050)	(0.057)	

Table 6.4: Post-Unification Analysis by Unification Type

For each of the variables listed I estimate the following specification:

$$y_{it} = \alpha + \sum_{j=0}^{3} \beta_j UNI_{t-j} + \beta_4 UNI_{t-n} + u_i + d_t + \epsilon_{it}$$

where u_i and d_t are firm-specific and fiscal-year specific effects. UNI_{t-j} are dummy variables equal to one if year $t-j$ was the unification year, UNI_{t-n} is a dummy variable equal to one if the unification took place more than three years before. By using a fixed effects model I am using each company before the unification as a control for itself after the unification. The table only reports the coefficients on the UNI dummy variables. Variable definitions are given in Appendix C. Financial variables are winsorized at the 1st and 99th percentiles. Heteroskedasticity robust standard errors are reported in parenthesis. *, **, and *** denote the results are significantly different from zero at the 10%, 5%, and 1% levels, respectively. The second to the last column reports the p-value of an F-test of the hypothesis that the sum of the coefficients for dummies for year zero to two are equal to zero. The last column reports the p-value of an F-test of the hypothesis that the sum of the coefficients of all post-unification dummies are equal to zero.

Variable	Firm Years	Year 0	Year +1	Year +2	F-test Years 0-2
Shareholder Proposed Unifications					
Leverage	940	0.118	0.053***	0.062***	0.004***
		(0.019)	(0.021)	(0.023)	
Capital Expenditures	901	-0.001	0.001	-0.001	0.940
		(0.007)	(0.007)	(0.007)	
Equity Issuance Dummy	950	0.123**	0.070	0.101*	0.010**
		(0.051)	(0.056)	(0.060)	
Acquisitions Dummy	950	-0.003	-0.043	0.020	0.841
		(0.056)	(0.058)	(0.066)	
Superior Conversions					
Leverage	459	-0.004	-0.025	-0.039	0.224
		(0.025)	(0.023)	(0.032)	
Capital Expenditures	444	-0.011	-0.017**	-0.015*	0.027**
		(0.007)	(0.008)	(0.009)	
Equity Issuance Dummy	460	0.107*	0.089	-0.002	0.169
		(0.065)	(0.062)	(0.072)	
Acquisitions Dummy	460	0.239***	0.096	-0.020	0.100*
		(0.077)	(0.088)	(0.116)	

Table 6.5: Liquidity Around Unification

This table shows the liquidity of shares for unifying firms before the unification announcement and after the implementation of the unification. Data is collected from CRSP. Firms with share prices less than $5 are excluded. The examination windows prior to the unification announcement ends on day -5 and the window for after the implementation begins on day +5. For the Wilcoxon test statistic both the RVS and SVS liquidity measures are compared to the same post implementation measure. *, **, and *** denote the results are significantlydifferent from zero at the 10%, 5%, and 1% levels, respectively.

		Prior to Announcement				Post Implementation				
Window	Class	N	Mean	Median	Std Dev	N	Mean	Median	Std Dev	Wilcoxon Test Statistic
Panel A: All Voluntary Unifications										
50 days	RVS	72	2.51%	1.88%	3.10%	77	1.88%	1.58%	1.78%	1.15
	SVS	35	3.65%	1.93%	5.03%					1.91*
100 days	RVS	72	2.53%	1.76%	3.27%	78	1.87%	1.60%	1.76%	1.15
	SVS	35	3.37%	1.97%	4.53%					1.97**
250 days	RVS	72	2.44%	1.72%	2.79%	80	1.79%	1.47%	1.66%	1.43
	SVS	35	3.45%	2.37%	4.39%					2.50**
Panel B: Shareholder Proposed Unifications										
50 days	RVS	46	2.89%	1.96%	3.61%	50	1.85%	1.26%	1.76%	1.51
	SVS	35	3.65%	1.93%	5.03%					1.84*
100 days	RVS	46	2.90%	1.90%	3.81%	50	1.77%	1.43%	1.69%	1.67*
	SVS	35	3.37%	1.97%	4.53%					2.05**
250 days	RVS	46	2.73%	1.86%	3.18%	52	1.69%	1.37%	1.57%	1.91*
	SVS	35	3.45%	2.37%	4.39%					2.50**
Panel C: Superior Conversions										
50 days	RVS	26	1.83%	1.64%	1.76%	27	1.93%	1.59%	1.84%	0.11
100 days	RVS	26	1.88%	1.75%	1.85%	28	2.03%	1.65%	1.90%	0.11
250 days	RVS	26	1.93%	1.65%	1.88%	28	1.97%	1.79%	1.84%	0.18

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Appendix A

SEC Rule 19c-4

Rule 19c-4 – Governing Certain Listing or Authorization Determinations by National Securities Exchanges and Associations

(a) The rules of each exchange shall provide as follows: No rule, stated policy, practice, or interpretation of this exchange shall permit the listing, or the continuance of the listing, of any common stock or other equity security of a domestic issuer, if the issuer of such security issues any class of security, or takes other corporate action, with the effect of nullifying, restricting or disparately reducing the per share voting rights of holders of an outstanding class or classes of common stock of such issuer registered pursuant to Section 12 of the Act.

(b) The rules of each association shall provide as follows: No rule, stated policy, practice, or interpretation of this association shall permit the authorization for quotation and/or transaction reporting through an automated inter-dealer quotation system ("authorization"), or the continuance of authorization, of any common stock or other equity security of a domestic issuer, if the issuer of such security issues any class of security, or takes other corporate action, with the effect of nullifying, restricting, or disparately reducing the per share voting rights of holders of an outstanding class or classes of common stock of such issuer registered pursuant to Section 12 of the Act.

(c) For the purposes of paragraphs (a) and (b) of this section, the following shall be presumed to have the effect of nullifying, restricting, or disparately reducing the per share voting rights of an outstanding class or classes of common stock:

1. Corporate action to impose any restriction on the voting power of shares of the common stock of the issuer held by a beneficial or record holder based on the number of shares held by such beneficial or record holder;

2. Corporate action to impose any restriction on the voting power of shares of the common stock of the issuer held by a beneficial or record holder based on the length of time such shares have been held by such beneficial or record holder;

3. Any issuance of securities through an exchange offer by the issuer for shares of an outstanding class of the common stock of the issuer, in which the securities issued have voting rights greater than or less than the per share voting rights of any outstanding class of the common stock of the issuer.

4. Any issuance of securities pursuant to a stock dividend, or any other type of distribution of stock, in which the securities issued have voting rights greater than the per share voting rights of any outstanding class of the common stock of the issuer.

(d) For the purpose of paragraphs (a) and (b) of this section, the following, standing alone, shall be presumed not to have the effect of nullifying, restricting, or disparately reducing the per share voting rights of holders of an outstanding class or classes of common stock:

1. The issuance of securities pursuant to an initial registered public offering;

2. The issuance of any class of securities, through a registered public offering, with voting rights not greater than the per share voting rights of any outstanding class of the common stock of the issuer;

3. The issuance of any class of securities to effect a bona fide merger or acquisition, with voting rights not greater than the per share voting rights of any outstanding class of the common stock of the issuer.

4. Corporate action taken pursuant to state law requiring a state's domestic corporation to condition the voting rights of a beneficial or record holder of a specified threshold percentage of the corporation's voting stock on the approval of the corporation's independent shareholders.

(e) Definitions. The following terms shall have the following meanings for purposes of this section, and the rules of each exchange and association shall include such definitions for the purposes of the prohibition in paragraphs (a) and (b), respectively, of this section:

1. The term ”Act” shall mean the Securities Exchange Act of 1934, as amended.

2. The term ”common stock” shall include any security of an issuer designated as common stock and any security of an issuer, however designated, which, by statute or by its terms, is a common stock (e.g., a security which entitles the holders thereof to vote generally on matters submitted to the issuer’s security holders for a vote).

3. The term ”equity security” shall include any equity security defined as such pursuant to Rule 3a11-1 under the Act.

4. The term ”domestic issuer” shall mean an issuer that is not a ”foreign private issuer” as defined in Rule 3b-4 under the Act .

5. The term ”security” shall include any security defined as such pursuant to Section 3(a)(10) of the Act, but shall exclude any class of security having a preference or priority over the issuer’s common stock as to dividends, interest payments, redemption or payments in liquidation, if the voting rights of such securities only become effective as a result of specified events, not relating to an acquisition of the common stock of the issuer, which reasonably can be expected to jeopardize the issuer’s financial ability to meet its payment obligations to the holders of that class of securities.

6. The term ”exchange” shall mean a national securities exchange, registered as such with the Securities and Exchange Commission pursuant to Section 6 of the Act, which makes transaction reports available pursuant to Rule 242.601 of this chapter; and

7. The term ”association” shall mean a national securities association registered as such with the Securities and Exchange Commission pursuant to Section 15A of the Act.

(f) An exchange or association may adopt a rule, stated policy, practice, or interpretation, subject to the procedures specified by Section 19(b) of the Act, specifying what types of securities issuances and other corporate actions are covered by, or excluded from, the prohibition in paragraphs (a) and(b) of this section, respectively, if such rule, stated policy, practice, or interpretation is consistent

with the protection of investors and the public interest, and otherwise in furtherance of the purposes of the Act and this section.

Appendix B

Section 313.00 of the NYSE Listed Company Manual

313.00 Voting Rights

(A) Voting Rights Policy

On May 5, 1994, the Exchange's Board of Directors voted to modify the Exchange's Voting Rights Policy, which had been based on former SEC Rule 19c-4. The Policy is more flexible than Rule 19c-4. Accordingly, the Exchange will continue to permit corporate actions or issuances by listed companies that would have been permitted under Rule 19c-4, as well as other actions or issuances that are not inconsistent with the new Policy. In evaluating such other actions or issuances, the Exchange will consider, among other things, the economics of such actions or issuances and the voting rights being granted. The Exchange's interpretations under the Policy will be flexible, recognizing that both the capital markets and the circumstances and needs of listed companies change over time. The text of the Exchange's Voting Rights Policy is as follows:

Voting rights of existing shareholders of publicly traded common stock registered under Section 12 of the Exchange Act cannot be disparately reduced or restricted through any corporate action or issuance. Examples of such corporate action or issuance include, but are not limited to, the adoption of time phased voting plans, the adoption of capped voting rights plans, the issuance of super voting stock, or the issuance of stock with voting rights less than the per share voting rights of the existing common stock through an exchange offer.

(B) Non-Voting Common Stock

The Exchange's voting rights policy permits the listing of the voting common stock of a company which also has outstanding a non-voting common stock as well as the listing of non-voting common stock. However, certain safeguards must be provided to holders of a listed non-voting common stock: (1) Any class of non-voting common stock that is listed on the Exchange must meet all

original listing standards. The rights of the holders of the non-voting common stock should, except for voting rights, be substantially the same as those of the holders of the company's voting common stock. (2) Although the holders of shares of listed non-voting common stock are not entitled to vote generally on matters submitted for shareholder action, holders of any listed non-voting common stock must receive all communications, including proxy material, sent generally to the holders of the voting securities of the listed company.

(C) Preferred Stock, Minimum Voting Rights Required

Preferred stock, voting as a class, should have the right to elect a minimum of two directors upon default of the equivalent of six quarterly dividends. The right to elect directors should accrue regardless of whether defaulted dividends occurred in consecutive periods.

The right to elect directors should remain in effect until cumulative dividends have been paid in full or until non-cumulative dividends have been paid regularly for at least a year. The preferred stock quorum should be low enough to ensure that the right to elect directors can be exercised as soon as it accrues. In no event should the quorum exceed the percentage required for a quorum of the common stock required for the election of directors. The Exchange prefers that no quorum requirement be fixed in respect to the right of a preferred stock, voting as a class, to elect directors when dividends are in default.

The Exchange recommends that preferred stock should have minimum voting rights even if the preferred stock is not listed.

Increase in Authorized Amount or Creation of a Pari Passu Issue—

- An increase in the authorized amount of a class of preferred stock or the creation of a pari passu issue should be approved by a majority of the holders of the outstanding shares of the class or classes to be affected. The Board of Directors may increase the authorized amount of a series or create an additional series ranking pari passu without a vote by the existing series if shareholders authorized such action by the Board of Directors at the time the class of preferred stock was created.

Creation of a Senior Issue—

- Creation of a senior equity security should require approval of at least two-thirds of the outstanding preferred shares. The Board of Directors may create a senior series without a vote by the existing series if shareholders authorized such action by the Board of Directors at the time of the existing series of preferred stock was created.

- A vote by an existing class of preferred stock is not required for the creation of a senior issue if the existing class has previously received adequate notice of redemption to occur within 90 days. However, the vote of the existing class should not be denied if all or part of the existing issue is being retired with proceeds from the sale of the new stock.

Alteration of Existing Provisions—

- Approval by the holders of at least two-thirds of the outstanding shares of a preferred stock should be required for adoption of any charter or by-law amendment that would materially affect existing terms of the preferred stock.

- If all series of a class of preferred stock are not equally affected by the proposed changes, there should be a two-thirds approval of the class and a two-thirds approval of the series that will have a diminished status.

- The charter should not hinder the shareholders' right to alter the terms of a preferred stock by limiting modification to specific items, e.g., interest rate, redemption price.

SUPPLEMENTARY MATERIAL

.10 Companies with Dual Class Structures —

The restriction against the issuance of super voting stock is primarily intended to apply to the issuance of a new class of stock, and companies with existing dual class capital structures would generally be permitted to issue additional shares of the existing super voting stock without conflict with this Policy.

.20 Consultation with the Exchange —

Violation of the Exchange's Voting Rights Policy could result in the loss of an Issuer's Exchange

market or public trading market. The Policy can apply to a variety of corporate actions and securities issuances, not just super voting or so-called "time phase" voting common stock. While the Policy will continue to permit actions previously permitted under Rule 19c-4, it is extremely important that listed companies communicate their intentions to their Exchange representatives as early as possible before taking any action or committing to take any action that may be inconsistent with the Policy. The Exchange urges listed companies not to assume, without first discussing the matter with the Exchange staff, that a particular issuance of common or preferred stock or the taking of some other corporate action will necessarily be consistent with the Policy. It is suggested that copies of preliminary proxy or other material concerning matters subject to the Policy be furnished to the Exchange for review prior to formal filing.

.30 Review of Past Voting Rights Activities —

In reviewing an application for initial listing on the Exchange, the Exchange will review the issuer's past corporate actions to determine whether another self-regulatory organization ("SRO") has found any of the issuer's actions to have been a violation or evasion of the SRO's voting rights policy. Based on such review, the Exchange may take any appropriate action, including the denial of the listing or the placing of restrictions on such listing. The Exchange will also review whether an issuer seeking initial listing on the Exchange has requested a ruling or interpretation from another SRO regarding the application of that SRO's voting rights policy with respect to a proposed transaction. If so, the Exchange will consider that fact in determining its response to any ruling or interpretation that the issuer may request on the same or similar transaction.

.40 Non-U.S. Companies —

The Exchange will accept any action or issuance relating to the voting rights structure of a non-U.S. company that is in compliance with the Exchange's requirements for domestic companies or that is not prohibited by the company's home country law.

Appendix C

Variable Definitions

I define year t as the company's fiscal year. Year 0 is identified as the fiscal year in which the unification takes place. Compustat variables come from the Compustat Fundamentals Annual dataset.

- *Assets*: Total Assets (Compustat item AT) measured in millions of dollars during fiscal year t.
- *Sales*: Total Revenue (Compustat item REVT) measured in millions of dollars during fiscal year t.
- *Leverage*: The ratio of long-term debt (Compustat item DLTT) to total assets (Compustat item AT) in fiscal year t.
- *Tobin's Q*: The ratio of the book value of assets (Compustat item AT) plus the market value of common stock (Compustat item CSHO times Compustat item PRCC-F) less the book value of common stock (Compustat item CEQ) and deferred taxes (Compustat item TXDB) to book value of assets (Compustat item AT) (Kaplan and Zingales, 1997). All figures come from the fiscal year t.
- *Sales Growth*: Sales growth in fiscal year t as measured by the percentage change in sales (Compustat item REVT) from year $t-1$ to year t.
- *Capital Expenditures*: The ratio of capital expenditures (Compustat item CAPX) in year t to total assets (Compustat item AT) in year t.

- *Research & Development*: The ratio of research and development expense (Compustat item XRD) in year t to total assets (Compustat item AT) in year t. This variable is set to zero when research and development is missing.

- *Equity Issuance Dummy*: Takes on a value of one if the company had sales of common or preferred stock (Compustat item SSTK) greater than zero in year t; otherwise the variable is set to zero.

- *Equity Issuance*: The ratio of sales of common or preferred stock (Compustat item SSTK) in year t to total assets (Compustat item AT) in year $t-1$.

- *Net Financing Dummy*: Takes on a value of one if the company's cash flow from financing activities (Compustat item FINCF) is greater than zero in year t. Takes on a value of negative one (-1) if the company's cash flow from financing activities is less than zero in year t. If the cash flow from financing activities is equal to zero, net financing is set to zero.

- *Acquisition Dummy*: Takes on a value of one if the funds used for acquisitions (Compustat item AQC) is greater than zero in year t; otherwise the variable is set to zero.

- *Acquisitions*: The ratio of funds used for acquisitions (Compustat item AQC) in year t to total revenues (Compustat item REVT)in year t.

- *Stockholders*: The number of common shareholders (Compustat item CSHR) in thousands as reported by the firm for all share classes in year t.

Appendix D

Sample Unification

This appendix presents information regarding a dual class unification at E-Z-EM (AMEX:EZM). Information comes from news articles on *Factiva* or *Lexis-Nexis* and firm proxies.

Unification Timeline

Dual class recapitalization announcement	September 29, 1992
Class B (EZM.B - non-voting) shares begin trading	October 27, 1992
Board begins to examine unification options	October 2001
A committee of outside directors begin to evaluate unification	May 6, 2002
Board recommends unification	July 9, 2002
Announcement of the proposed unification by press release	July 10, 2002
Proxy statement mailed discussing unification	September 13, 2002
Unification approved by shareholders	October 15, 2002
New common stock share begins trading	October 22, 2002

Dual class structure details:

Class A Common Stock Terms:

- Voting: One vote per share. 66% affirmative vote of Class A shares actually voted required for any amendment of the certificate of incorporation, reduction of capital, merger with and into one or more corporations, sale, transfer, pledge, etc. of substantially all of the Company's property or assets, or liquidation, dissolution or winding up of the Company.
- Dividends: May receive cash dividends equal to or less than dividends paid on Class B common stock. May receive stock dividends either in the form of Class A or Class B common stock.

Class B Common Stock Terms:

- Voting: No vote.
- Dividends: May receive cash dividends equal to or greater than dividends paid on Class A common stock. May receive stock dividends only in the form of Class B common stock.
- Conversion: May be converted into Class A common stock on a one-for-one basis if either
  - the Class A or Class B shares are excluded from quotation on the AMEX due to the dual class structure, or
  - the number of outstanding shares of Class A common stock falls below 10% of total number of shares of all classes of outstanding E-Z-EM common stock.

Why was the structure implemented?

In their 2002 annual proxy, E-Z-EM gives the following reasons why the dual class structure was originally implemented:

- to allow E-Z-EM to issue equity securities in connection with acquisitions and to raise equity capital or to issue convertible debt or convertible preferred stock as a means to finance future growth without diluting the voting power of the Company's existing stockholders;
- to allow E-Z-EM to grant equity-based compensation awards without diluting the voting power of the Company's existing stockholders;
- to allow the existing holders of E-Z-EM common shares to sell or otherwise dispose of common shares while maintaining their voting positions; and
- to reduce the risk of an unsolicited takeover attempt that might not be in the best interests of the Company and its stockholders.

Why was the structure being discarded?

Also in their 2002 annual proxy, E-Z-EM states the elimination of the structure is expected to:

- eliminate potential investor confusion and additional administrative expenses caused by our dual class capital structure,

- eliminate any negative impact on the market price of shares that we believe results from the dual class structure,
- potentially increase our investor base and the liquidity, trading volume and trading efficiencies of our common shares,
- potentially increase our ability to use stock as an acquisition currency, and
- potentially enhance our ability to attract analyst coverage and investments by mutual funds and other types of investors that do not purchase non-voting securities.

Shares outstanding and control block:

As of the record date for their 2002 annual meeting, E-Z-EM had approximately 4,001,341 shares of (voting) Class A common stock outstanding, and 5,990,974 shares of (non-voting) Class B common stock outstanding. The Stern and Meyers families held approximately 64% of the voting Class A stock and 52% of the non-voting Class B common stock.

Who can vote for the unification proposal?

Only Class A shareholders have the right to vote for the unification proposal.[1]

Unification Details:

In E-Z-EM's unification, each share of Class A common stock and each share of Class B common stock was converted into one share of new common stock. In E-Z-EM's case, the company actually did a recapitalization merger with a wholly-owned subsidiary to effect the unification.

[1]Sometimes both classes are allowed to vote for the proposals.