

**DISCLOSURE PRACTICES OF DUAL CLASS FIRMS: AN EXAMINATION OF
VOLUNTARY AND MANDATORY REPORTING**

A dissertation submitted to the
Kent State University Graduate School of Management
in partial fulfillment of the requirements for
the degree of Doctor of Philosophy

by

Barry Hettler

May, 2015

UMI Number: 3689380

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI 3689380

Published by ProQuest LLC (2015). Copyright in the Dissertation held by the Author.

Microform Edition © ProQuest LLC.

All rights reserved. This work is protected against unauthorized copying under Title 17, United States Code



ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

Dissertation written by:

Barry Hettler

B.S., The College at Brockport - SUNY, 2006

M.S., The College at Brockport - SUNY, 2010

Ph.D., Kent State University, 2014

Approved by:

_____, Chair, Doctoral Dissertation Committee

_____, Members, Doctoral Dissertation Committee

Accepted by:

_____, PhD Director, Graduate School of Management

_____, Dean, College of Business Administration

Contents

ACKNOWLEDGEMENTS.....	vi
CHAPTER 1 – Introduction and Motivation.....	1
CHAPTER 2 – Background on Dual Class Firms.....	15
2.1 Overview of dual class firms.....	15
2.2 Literature Review.....	17
2.3 Sample Selection, Description, and Variable Construction.....	21
CHAPTER 3 – Essay I.....	26
3.1 Literature Review.....	26
3.2 Hypotheses Development.....	32
3.3 Methodology.....	39
3.4 Data Sources and Sample Selection.....	44
3.5 Descriptive Statistics.....	46
3.6 Results of Hypotheses Tests.....	48
Tables – Chapter 3.....	51
CHAPTER 4 – Essay II.....	60
4.1 Literature Review.....	60
4.2 Hypothesis Development.....	66
4.3 Methodology.....	72
4.4 Data Sources and Sample Selection.....	78
4.5 Descriptive Statistics.....	80
4.6 Results of Hypotheses Tests.....	82
Tables – Chapter 4.....	87
CHAPTER 5 – Conclusion.....	101
REFERENCES.....	109

List of Tables

Table 1: Essay I Descriptive Statistics.....	51
Table 2: Essay I Correlations.....	53
Table 3: The effect of insider voting and cash flow rights on the issuance of Management Earnings Forecasts	54
Table 4: The effect of insider voting and cash flow rights on the issuance of Management Point Forecasts of Earnings.....	55
Table 5: The effect of insider voting and cash flow rights on the Absolute Error of Management Earnings Forecasts	56
Table 6: The effect of insider voting and cash flow rights on the Signed Error of Management Earnings Forecasts	57
Table 7: Fixed Effects -- the effect of insider voting and cash flow rights on the Absolute Error of Management Earnings Forecasts.....	58
Table 8: Fixed Effects -- the effect of insider voting and cash flow rights on the Signed Error of Management Earnings Forecasts	59
Table 9: Essay II Descriptive Statistics	87
Table 10: Essay II Correlations - Model 4.....	89
Table 11: Essay II Correlations - Model 5.....	90
Table 12: The effect of insider voting and cash flow rights on MD&A readability as measured by the Fog Index	91
Table 13: The effect of insider voting and cash flow rights on MD&A readability as measured by the Flesch-Kincaid Readability Score.....	92
Table 14: The effect of insider voting and cash flow rights on MD&A tonal optimism as measured by the Loughran & McDonald (2011) Dictionaries	93
Table 15: The effect of insider voting and cash flow rights on MD&A readability as measured by the Smog Index	94
Table 16: The effect of insider voting and cash flow rights on MD&A readability as measured by the Flesch Reading Ease Score	95

Table 17: The effect of insider voting and cash flow rights on MD&A readability as measured by Word Count.....	96
Table 18: The effect of insider voting and cash flow rights on MD&A readability as measured by Natural Log of Word Count.....	97
Table 19: The effect of insider voting and cash flow rights on MD&A tonal optimism as measured by the DICTION 7 Optimism Measure	98
Table 20: Fixed Effects - the effect of insider voting and cash flow rights on MD&A readability as measured by the Fog Index.....	99
Table 21: Fixed Effects - the effect of insider voting and cash flow rights on MD&A tonal optimism as measured by the Loughran & McDonald (2011) Dictionaries.....	100

ACKNOWLEDGEMENTS

This dissertation is dedicated to my parents, Robert and Janice Hettler. Without their love and encouragement this PhD degree would never have been possible. I owe my sense of conscientious resolve to continually improve myself to the clear importance they place on learning. I also thank my loving wife, Holly, for a great deal of motivation.

I am very thankful to my dissertation committee of Rini Laksmana (Chair), Arno Forst, and Eric Johnson. They were enormously helpful every step of the way and I could not have gotten to this point without them.

I owe a debt a gratitude to the outstanding Kent State faculty I have had the pleasure to work with during my time in the PhD program, including, in no particular order, Linda Zucca, John Rose, Wendy Tietz, Emmanuel Dechenaux, Jennifer Wiggins-Johnson, Alfred Guiffrida, Murali Shanker, David Booth, Tim Miller, Drew Sellers, Pervaiz Alam, Ran Barniv, Mark Altieri, Shunlan Fang, Ben Hoffman, and Tim Hinkel.

A special thanks as well to my fellow accounting PhD students who have been a great help and wonderful company along the way, and to Nate Sluk for his encouragement and advice.

Finally, I thank God for the opportunity to spend four years of my life at Kent State University. This time has been a blessing and has allowed me the chance to truly pursue my dreams in a way I never thought would be possible.

CHAPTER 1 – Introduction and Motivation

Dual class firms have been a topic of increased academic research in recent years. Traditionally the domain of family firms issuing publicly traded stock for the first time, the equity structure is becoming more prevalent through its adoption by high-profile technology firms such as Google, Facebook, and LinkedIn. One area that has not yet been extensively examined is the information disclosure practices of dual class firms and the implication of these findings for firms with significant managerial ownership. The goal of this paper, organized into two essays, is to analyze two aspects of a dual class firm's information disclosure not addressed in prior research: voluntary management guidance and textual characteristics of mandatory annual report filings.

Corporate disclosures, both voluntary and mandatory, are crucial to the functioning of a market economy. Disclosures reduce the information asymmetry between corporate insiders and current and potential investors and creditors. A rich information environment and low information asymmetry facilitate the efficient allocation of resources, capital market development, market liquidity, and tend to reduce firms' cost of capital (Kothari et al., 2009).

Dual class firms are distinguished from others by the fact that they have two or more outstanding classes of common shares of stock.¹ These classes may differ in their voting and

¹ Though the term "dual" may seem to imply only two classes, the literature has taken to using it in general to describe firms with more than one class of common stock. Thus a firm with three or even four classes would also be considered dual class. However, the majority of firms in my sample (83%) have two classes of common shares.

cash flow rights.² Typically, the insiders of a company will own all, or nearly all, of the “superior” class – that is, the class with enhanced voting rights relative to the “inferior” class that is usually held by outside investors. A dual class structure allows insiders to control the company while owning a smaller number of total shares than would be necessary in a traditional corporation.³ This control mechanism may serve to exacerbate principal-agent problems as insiders’ voting power far outstrips their cash flow rights.

In both dual class and non-dual class firms, inside ownership imparts two unique forces on management: the entrenchment effect and the incentive-alignment effect (Morck et al., 1988; Claessens et al., 2002). Entrenchment predicts that as managers own more of a firm, they will have a greater ability and disposition to act in their own self-interest to the detriment of outside shareholders. However, high inside ownership may also help to align the interests of managers and outside shareholders by motivating management to seek firm value maximization as its primary goal. The overall impact of inside ownership depends on which of these forces dominates. Dual class firms present an excellent opportunity to disentangle these conflicting forces that is absent in a single class corporation. The degree to which managers are entrenched in a dual class corporation can be measured by the computed share of the voting power of insiders relative to the total, while the extent of incentive-alignment is captured by the share of cash flow rights belonging to insiders relative to the total. Thus, dual class firms provide the opportunity to observe the relative importance of each effect within the overall context of managerial ownership. It is typical in analyses of dual class firms to combine these constructs in

² The term “voting rights” throughout this refers to board election rights, accomplished with votes for board members and/or disproportionate board control rights. “Cash flow rights” is usually synonymous with dividend rights per share, although in certain situations may refer to cash flow rights in regards to liquidation as well.

³ Insiders are defined in an inclusive manner per Gompers et al. (2010) and Forst et al. (2014), namely those that are under the ownership and/or control of insiders. Thus shares owned by insiders are those directly owned by managers and directors, their close family members, trusts for the benefit of insiders or charitable trusts controlled by insiders, shares in insiders’ employee stock ownership plans, parent or subsidiary corporations with board representation, block holders with board representation, and shares subject to voting agreements to vote with insiders.

a single metric known as the “wedge.” The wedge is expressed either as the ratio of voting rights to cash flow rights or the difference between voting rights and cash flow rights and measures the separation between voting and cash flow rights. This separation between voting and cash flow rights can be thought of as a measure of excess insider control.

Publicly-traded companies in the United States must conform to the rules and regulations promulgated by the Securities and Exchange Commission (SEC). One of the primary goals of the SEC is to ensure that publicly traded corporations provide a minimum level of disclosure to current and potential investors. The Securities Exchange Act of 1934 for the first time required public companies to periodically report certain financial and non-financial information. Regardless of publicly-traded status, companies also often release other kinds of information that is not required under law. Such information disclosures are considered voluntary. One often-used form of voluntary disclosure is management earnings guidance.⁴ Management guidance is in many ways complimentary to the required periodic earnings disclosures for publicly-traded companies as it plays an important role in shaping the expectations of financial analysts, investors, creditors, and other users of financial statements.

Essay I takes a multi-dimensional look at earnings guidance set forth by dual class firms’ managers. Management forecasts are an important source of information for market participants, and has been found to be even more informative than actual earnings announcements (Ball and Shivakumar, 2008; Beyer et al., 2010). Since earnings guidance is voluntary, management may or may not choose to offer such guidance. This choice is the first aspect of dual class firms’ information disclosures studied. Next, if guidance has been given, its form can be analyzed. Managers may present a range of expected earnings values (a “range” forecast) or focus on a

⁴ Management earnings guidance often goes by the term “management earnings forecasts.” The two terms are used interchangeably throughout this paper.

single dollar amount (a “point” forecast).⁵ I examine the likelihood of management issuing one type over another. Finally, if the guidance given by management is quantitative in nature, the accuracy of the earnings forecast can be evaluated. Essay I examines management earnings forecasts for dual class firms with the goal of shedding further light upon the effect of insider ownership on voluntary disclosure.

Prior research is unclear about whether managerial ownership tends to improve or worsen the quantity and quality of management guidance. Some studies (e.g. Eng and Mak, 2003; Ruland et al., 1990) find that managerial ownership is negatively related to voluntary disclosures and the issuance of management forecasts, while others fail to find any significant association at all (Mak, 1991; Gelb, 2000; Makhija and Patton, 2004; and Donnelly and Mulcahy, 2008). However, other papers (e.g., Nasir and Abdullah, 2004; Noe, 1995) find a positive relationship between managerial ownership and voluntary disclosure and management guidance. Karamanou and Vafeas (2005) present conflicting evidence between insider ownership and management earnings guidance. They find that higher inside ownership is associated with a lower likelihood incidence of all earnings forecasts and a lower accuracy for point forecasts. Yet they also find that inside ownership is associated with a lower probability of managers’ providing a point versus a range forecast. The lack of a consensus in prior studies may be a result of the previously-discussed conflicting forces generated by managerial ownership. The entrenchment effect may cause managers to decrease the quantity and quality of voluntary disclosures. Managers have the ability to control the reporting process and manage the flow of proprietary information, and therefore voluntary disclosures may suffer as the entrenchment effect dominates (Fan and Wong, 2002; Francis et al., 2005). The incentive-alignment effect, however, may result

⁵ Alternatively, managers may not provide a numerical forecast at all, but rather couch their guidance in purely qualitatively terms, such as whether they expect earnings to come in above or below the consensus forecast estimate.

in greater transparency and reporting quality. Managers with incentives aligned with those of outside shareholders are more likely to work to please those shareholders by operating in full view of their scrutiny. As a result, dual class firms present a unique opportunity to identify the relative strength of these opposing influences generated by insider ownership.

To the best of my knowledge, only two previous studies examine the voluntary disclosure practices of firms with separated voting and cash flow rights, but they differ from this paper in important ways. Lee (2007) finds that disclosure decreases for firms with a greater wedge in regards to the inclusion of specific items in annual reports per Standard and Poor's Transparency and Disclosure Methodology. Likewise, Tinaikar (2014) finds that compensation disclosure is worse for dual class firms, and that disclosure decreases in voting rights and increases in cash flow rights. In addition to using much smaller samples, however, these papers do not consider management earnings guidance.

The entrenchment and information arguments in Fan and Wong (2002) and Francis et al. (2005) suggest that as managers' power increases, the flow of information from the firm will diminish; this may be true for both good and bad news about the company. Also, Karamanou and Vafeas (2005) find that the incentives provided to management by the board of directors can impact their propensity to issue management forecasts. Because dual class firms' boards are more likely to be under the control of management as the wedge between insider voting rights and cash flow rights increases, management may be less likely to have the proper motivation to release earnings guidance. Additionally, according to Hirst et al. (2008), management earnings forecasts are an important way to communicate expected financial performance to the markets and analysts. Given that as insiders' voting rights increase relative to cash flow rights they tend to face less pressure from market expectations (Chen, 2008; Nguyen and Xu; 2010), it becomes

less likely that management will have a vested interest in providing earnings guidance as a way of forming, altering, or satisfying external expectations. As a result, I expect to find a negative association between the propensity to issue a management forecast and the wedge between insider voting rights and cash flow rights. Generating a range forecast is likely to require less time and effort than a point forecast. As management tends not to be as concerned with the opinions of markets and analysts as their control over the firm increases relative to cash flow rights, they are less likely to want to use scarce resources to produce an earnings estimate, and so may settle for issuing range forecasts more often, as opposed to point. I thus predict a negative association between the likelihood of firms generating a point (rather than a range) forecast and the wedge between insider voting rights and cash flow rights. Finally, theory also suggests a negative relationship between the wedge and accuracy. Better corporate governance is associated with more accurate forecasts (Karamanou and Vafeas, 2005) and management is also less likely to invest resources or face the proper incentives to produce an accurate estimate. I also separately model inside voting rights and cash flow rights. I predict the same sign on inside voting rights as for wedge for my three hypotheses; I predict the opposite sign on cash flow rights.

I use models adapted from Karamanou and Vafeas (2005) to test my hypotheses on a comprehensive sample of dual class firms. My dependent variable to test my first hypothesis, whether or not management issues a forecast, is a dummy variable that takes a value of 1 for firms that issue annual earnings guidance in a given year and 0 otherwise. To test my second hypothesis, examining the likelihood of generating a range versus a point forecast for those firms issuing forecasts, I again use a dummy variable that takes a value of 1 if a firm generates a point forecast in a given year and 0 if it generates a range forecast. The sample for my third hypothesis is also those firms that issued forecasts; my dependent variable is the absolute value of the

difference between the most recent point management earnings forecast for point forecasts or the midpoint of the range for a range forecast, and actual earnings per share divided by the forecast value. The independent variables of interest are the wedge between managerial voting power and cash flow rights or managerial voting and cash flow rights separately, depending on the specific version of each hypothesis tested. My controls follow from Karamanou and Vafeas (2005).

Results from my hypotheses tests fail to find a significant relationship between inside voting rights and cash flow rights, and the wedge between them, and the propensity to issue a forecast, the type of forecast issued, and forecast accuracy. However, one notable limitation of this study is that my sample size is only 337 firm-year observations. My models accordingly may suffer from a lack of power and not be able to discern an effect of the wedge and its components on the management earnings forecast dependent variables.

This essay contributes to the literature by further shedding light on the impact of insider ownership on voluntary disclosures, and in particular management earnings guidance. It partially answers the call of Hirst et al. (2008) to further study the potential determinants of forecast characteristics. While failing to find significant results, this essay opens the door to future research on the subject of insider ownership and managerial forecast accuracy. Similar, larger-scale versions of studies similar to this one may prove useful to financial analysts and investors when attempting to assess the expected accuracy of earnings forecasts provided by management. Further, future studies implementing larger samples may offer additional insight to the debate as to whether takeover defenses tend to prompt managers to act in the long-term interests of shareholders (e.g. DeAngelo and Rice, 1983; Mahoney and Mahoney 1993; Kabir et al., 1997). Dual class status can cause hostile takeovers to be nearly impossible (Jarrell and Poulsen, 1988). A reduction in the amount of time and effort spent generating short-term forecasts (which adds

very little value to the corporation) relative to firms with a more myopic view would allow managers with strong takeover defenses to concentrate on long-term value creation.

The Securities Exchange Act of 1934 requires that public companies produce an annual report.^{6,7} While the content of an annual report is generally fixed, firms have leeway as to the language used in the document – particularly in the management discussion and analysis (MD&A) section.

Essay II examines the readability and tone of the reporting language used by dual class firms in the MD&A portion of annual reports.⁸ Prior research has shown that 10-K filings can affect stock prices and are an importance source of information (Asthana and Balsam, 2002; Griffin, 2003; Asthana et al., 2004). The language of financial reporting is an important, but sometimes overlooked, aspect of the reporting process. “Soft” information disclosures (the text in written documents regarding a firm) are increasingly being used by investment firms in trading decisions (Demers and Vega, 2011) and have repeatedly been shown to impact markets (e.g. Tetlock, 2007; Kothari et al., 2009; Demers and Vega, 2011).

Communication has always been the primary purpose of accounting, yet proper communication can only occur if the meaning encoded by the information source is appropriately interpreted and understood by readers of financial statements (Smith and Smith, 1971). That annual reports should have a high level of readability has been acknowledged for decades (Soper and Dolphin, 1964).⁹ It is also recognized that annual reports with higher levels

⁶ §13 of the Securities Exchange Act of 1934

⁷ The annual report to the SEC should not be confused with the “annual report to shareholders,” a less-detailed document firms must distribute to voting owners of stock prior to the annual meeting when company directors are elected.

⁸ Annual reports are typically filed on SEC Form 10-K, although amended annual reports, if required, are filed on Form 10-K/A. Form 10-KSB was used for annual reports for small businesses prior to March 16, 2009. MD&A typically consists of Items 7 and 7A of the 10-K.

⁹ As detailed in Chapter 4, the reality is that annual reports are typically very difficult to read, with a difficulty level far surpassing the *Wall Street Journal*, as well as the CPA and CMA exams (Lehavy et al., 2011).

of readability are more useful (Courtis, 1998). As such, assessed readability can be interpreted as a sign of the quality of mandatory reporting (Hsieh, 2009).

Dale and Chall (1949) define readability as “the sum total...of all those elements within a given piece of printed material that affect the success that a group of readers have [*sic*] with it” (p.23) where “success” is the extent to which readers can understand, read at an optimum speed, and find the text interesting. Readability measures attempt to capture the complexity, or, equivalently, depending on the form of the measure, the ease of comprehension of a piece of text, and thus should provide an *ex ante* gauge of the likelihood of appropriate interpretation.¹⁰ Prior literature has not directly examined the question of managerial ownership and the readability of mandatory financial reports. This may be due to the conflicting forces exerted by insider ownership. For example, existing research demonstrates that readability is beneficial for financial statement users as it helps them digest the information released and act on the information appropriately (Lehavy et al., 2011; Lee, 2012; Callen et al., 2013; Loughran and McDonald, 2014a). The greater insiders’ cash flow rights, the more likely their incentives are to be aligned with those of outside shareholders, and so the readability of filings is likely to be greater.

As the wedge between voting rights and cash flow rights increases, the entrenchment effect will dominate. This may result in managers being less market- and shareholder-focused. The result of this entrenchment effect is uncertain *ex ante*. For instance, it is possible that management may not take particular care to ensure that the documents filed regarding their firm with the SEC are communicative, easily accessible, and informative. Yet on the other hand,

¹⁰ This paper uses the Gunning Fog Readability Index (“Fog Index”) to evaluate the readability of MD&A of dual class firms. This readability measure is easily calculated and has been used in recent accounting research (e.g. Lehavy et al., 2011; Laksmana et al., 2012; Callen et al., 2013). In supplemental analyses the Smog Index, Flesch Reading Ease Score, and Flesch-Kincaid Score measures of readability are used in place of the Fog Index.

being in a position of considerable, if not absolute, control may also cause managers to bond against the resultant agency problems. Similar to the findings of Dey et al. (2012) regarding debt, as the wedge increases managers may be more inclined to commit to a strategy of clear and effective communication in order to reduce one path for information asymmetry-related agency problems to proliferate.

I thus refrain from predicting the direction of the association of MD&A readability and the wedge between MD&A readability and voting rights and so state my hypotheses for these two variables of interest in non-directional form. I test my hypotheses using a model developed from the findings of Li (2008) and Blouin (2010). My primary dependent variable is readability as measured by the Fog Index; in additional analyses I also use the Flesch-Kincaid Score, Smog Index, Flesh Reading Ease Score, and word count. Similar to Essay I, my independent variables of interest are the wedge between insider voting rights and cash flow rights or insider voting rights and insider cash flow rights modeled as separate variables in the regression equation. Control variables come from the findings of Li (2008) and Blouin (2010).

Essay II also examines the tone of the MD&A. Beginning with Frazier et al. (1984) and Abrahamson and Amir (1996), the tone of financial reports has been shown to both have predictive power for future firm performance and to impact users of the information. The most common tonal analysis schema in the literature is to classify vocabulary as “optimistic” or “positive” versus “pessimistic” or “negative.” Feldman et al. (2008) find that short-window price movements around filing dates are associated with the negativity of the tone of MD&A, and that the impact is magnified for firms with weaker information environments. Similarly, Davis et al. (2012) find that net optimistic language in earnings press releases is associated with higher future accounting and market returns. Davis and Tama-Sweet (2012), in addition to documenting a

further link between pessimistic language in MD&A and future returns on assets (ROA), intriguingly find a relationship between tone and earnings management. Specifically, they observe that managers that just meet or beat analysts' forecasts use less pessimistic language in earnings press releases and that the use of optimistic language increases in the strength of reporting incentives.

The degree of separation between insider voting and cash flow rights is associated with less earnings management (Chen, 2008; Nguyen and Xu, 2010). This observation has been attributed to the lower financial reporting incentives managers face as insider control increases relative to cash flow. Consequently, management may be less likely to manipulate language to try to please external financial statement users; the language used may be more likely to reflect the "true" state of the firm due to less market pressure to meet Wall Street expectations. Yet high inside voting rights relative to cash flow rights may create a situation where motivated reasoning prompts management to increase the usage of optimistic language in high wedge situations. Given the significant ownership stakes and close connection between insiders and dual class firms, and that levels of ownership and this connection is likely to be stronger with a greater wedge, management may be more biased in assessing the health and performance of their firm than would a more-independent manager; this effect would be similar to that observed regarding a person's perception of their investments' future performance (e.g. Hales, 2007) and their own child's future (Lench et al., 2006), for instance. Due to these potentially competing forces, I refrain from predicting a directional hypothesis regarding the effect of the wedge (and its components) on the tonal optimism of MD&A.

To test these hypotheses regarding tone, I use a model similar to one used by Davis and Tama-Sweet (2012). My dependent variable is the proportion of net optimistic language in the

MD&A section of a firm's 10-K. Using the DICTION 7 software program, I identify optimistic and pessimistic words using the word lists generated by Loughran and McDonald (2011), and take the difference between average incidences of the two to generate net optimism. My independent variable of interest is the wedge between inside voting rights and cash flow rights; in alternate specifications I model inside voting rights and inside cash flow rights separately. Key control variables come from Davis and Tama-Sweet (2012).

Concerning readability, I find that an increased separation between inside voting and cash flow rights is associated with greater reading ease as measured by the Fog Index. Further, reading difficulty decreases in insider voting rights. There is no statistically significant association between readability and inside cash flow rights in my base OLS regressions. I repeat my initial analyses with the Flesch-Kincaid Readability Score and find slightly stronger results; results with using the Smog Index, Flesch Reading Ease Score, and word count are also qualitatively similar. Overall, the results suggest greater inside voting rights improve MD&A readability, consistent with the monitoring argument above. In additional analyses I perform the regression analysis using a fixed effects model. Fixed effects models control for time-invariant correlated omitted variables that may bias results obtained from OLS regressions. I find that my results are robust to the fixed effects specification: the wedge and inside voting rights continue to be significantly associated with greater levels of readability, while inside cash flow rights become negatively associated with readability.

I also find that a greater wedge is significantly associated with increased net optimism as defined by the dictionaries developed by Loughran and McDonald (2011), and that net optimism increases in inside voting rights and decreases in inside cash flow rights. These results are confirmed using the optimism measure that is built in to DICTION 7. In total, inside voting

rights are associated with more optimistic, and inside cash flow with less optimistic, filings. This is consistent with motivated reasoning whereby managers who have a strong desire to see their firm succeed use more optimistic language to describe its performance. When I use a fixed effects model to estimate the impact of inside voting and cash flow rights on optimism, the results are again largely confirmed: the wedge and inside voting rights continue to be positively associated with optimism, however inside cash flow rights are not significantly associated with optimism at conventional levels.

This essay contributes to the literature by shedding further light on the impact of inside ownership on mandatory disclosures, and in particular the readability and tone of annual reports. The findings of this paper may prove useful to financial analysts as they generate forecasts for firms with high inside ownership. The examination of these firms' narrative filings in this study may aid in analyst performance. Investors will benefit from this paper by understanding to what extent the language used in corporate documents may be a function of inside ownership, and in particular the effects of inside power and cash flow. The degree to which they must take the language "with a grain of salt" may be at least partially determined by the ownership pattern and financial reporting pressure. This study may also be of use to regulators, such as the SEC, when crafting rules and regulation regarding inside ownership. Further the SEC may wish to consider standards for clear and effective writing of filed reports.

The remainder of this study is organized as follows: Chapter 2 contains an overview of dual class firms, a literature review of prior work done on dual class firms, and a description of my dual class firm sample; Chapter 3 consists of Essay I, containing a literature review of voluntary disclosure, hypotheses, methods, and results; Chapter 4 consists of Essay II, containing a

literature review of aspects of mandatory disclosure (focusing especially on narrative disclosures), hypotheses, methods, and results; and Chapter 5 summarizes and concludes.

CHAPTER 2 – Background on Dual Class Firms

2.1 Overview of dual class firms

Dual class firms have two or more outstanding common classes of stock. These classes differ along their voting and/or cash flow rights per share. That is, the number of votes per share is not restricted to one as is typically the case with corporate structures, but instead may be less than, equal to, or greater than a single vote. Cash flow rights (typically dividends) may also be unequal across classes of common shares. The class of shares with greater voting rights per share is known as the “superior” class; that with fewer voting rights per share as the “inferior” class. Superior shares are often owned by founders, their families, and management, and serve to project power or control in a way that is greater than the number of shares owned implies. Cash flow rights per share in dual class firms in the US are often equal for all classes, though if they differ at all the superior class typically receives a lower dividend relative to the superior class. This cash flow arrangement serves to reinforce the notion that the purpose of the superior class is to control the corporation, not share in the cash flow the corporation produces.

A dual class structure may serve to exacerbate principal-agent problems as insiders’ voting power (calculated as the percentage of total voting rights held relative to all shareholders) may outstrip their cash flow rights (due to the enhanced voting power per superior class share and the fact that dividend rights of the superior class are almost always equal or less than those of inferior shares). While outside investors, the primary owners of inferior class shares in most situations, will usually hold the goal of firm value maximization, Morck et al. (1988) note that decreased management participation in cash flows may serve to aggravate the propensity of

management's undertaking of non-value maximizing activities. As the share of cash flows accruing to management declines, agency costs can increase at a dramatic rate (Bebchuk et al., 2000).

Despite some differences, dual class firms have the potential to be informative about a wide swath of corporations with significant inside ownership. In both dual class and non-dual class firms, inside ownership imparts two unique forces on management: the entrenchment effect and the incentive effect (Morck et al., 1988; Claessens et al., 2002). Entrenchment predicts that as managers own more of a firm, they will have a greater ability and likelihood to act in their own self-interest to the detriment of outside shareholders. Specific entrenchment costs may include managers blocking value-enhancing mergers and takeovers (McConnell and Servaes, 1990), securing outside compensation (Shleifer and Vishny, 1989; Masulis et al., 2009), engaging in non-value adding expansion more frequently (Shleifer and Vishny, 1989, Masulis et al., 2009) and consuming perquisites (e.g. Shleifer and Vishny, 1989). The general, or perhaps resultant, entrenchment cost is the observed market discount applied to firms with increasing managerial ownership (e.g., Morck et al., 1988; McConnell and Servaes, 1990; Claessens et al., 2002; Gompers et al., 2010).

However, high inside ownership may also help to align the interests of managers and outside shareholders by motivating management to seek firm value maximization as its primary goal. This is the theory behind equity compensation of managers (e.g., Core et al., 2003).¹¹ The overall impact of inside ownership depends on which force dominates. Dual class firms present a unique opportunity to disentangle these conflicting forces that is absent in single class corporations where cash flow and voting rights are always owned in equal proportions by management. The

¹¹ Core et al. (2003) provide a thorough literature review of the equity compensation literature and discuss many incentive-related topics.

degree to which managers are entrenched in a dual class firm is captured by the computed share of the voting power of insiders relative to the total; the extent of incentive-alignment is captured by the share of cash flow rights belonging to insiders relative to the total (see Section 2.3 for the exact computation used in this paper). Using dual class firms allows the researcher to measure the relative importance of each effect of inside ownership.

2.2 Literature Review

Interest in dual class firms, especially in the United States, expanded dramatically in the mid-1980s. Researchers' increased attention largely coincided with the New York Stock Exchange's decision to loosen listing rules prohibiting dual class firms in 1984 and then formally allow the listing of firms with classes of stock featuring differing voting rights in 1986 (a prohibition that had been in place for nearly sixty years). DeAngelo and DeAngelo (1985) undertake the first study of publicly-traded dual class firms. In a mostly descriptive paper, they document that management in dual class firms typically owns a larger percentage of the superior class than of the inferior. Consequently, manager median voting rights of 56.9% are substantially greater than the median cash flow rights of 24%. The authors also show that premiums may be paid to acquire superior shares in dual class firms. Other early dual class papers replicate their finding (Jog and Riding, 1986; Megginson, 1990).

An important question addressed by the literature is whether a dual class structure is inherently good or bad. Prior research provides mixed evidence. Grossman and Hart (1988) develop theoretical models showing that while a one-vote per share structure is usually optimal, it is not necessarily so. Given the large number of existing firms which adopted a dual class structure after the changes in NYSE rules, much research in the late 1980s focuses on

recapitalization. Dual class recapitalizations are often found to be associated with positive wealth effects (Partch, 1987; Ang and Megginson, 1989; Cornett and Vetsuypens, 1989). Dimitrov and Jain (2006), with the benefit of a longer horizon, estimate stock returns for dual class recapitalizations between 1979 and 1998 and find that they add value for shareholders. More generally, Bergström and Rydqvist (1990) do not find evidence of manager expropriation in dual class recapitalizations, a sentiment echoed by Dimitrov and Jain (2006).

However, Gilson (1987) notes that dual class status may be so effective at centralizing control “that it completely shelters management from the discipline of the market for corporate control” (p.812). Jarrell and Poulsen (1988) find that dual class recapitalizations are associated with significant negative abnormal returns, and that these returns are similar to those experienced by firms employing other anti-takeover mechanisms such as poison pills and charter amendments. Dual class firms may thus be at greater risk of experiencing the negative effects of managerial entrenchment noted previously. Hanson and Song (1996) conclude dual class firms are more likely to engage in value-destroying acquisitions. In a comprehensive examination of agency problems, Masulis et al. (2009) are able to draw multiple conclusions regarding the increased severity of conflicts at dual class firms. They find that as the difference between insiders’ voting and cash flow rights grows, acquisitions are more likely to be value-destroying, cash holdings are worth less to outside investors, excess CEO compensation increases, and capital expenditures are less likely to generate value for shareholders.

The literature further finds that, in general, the entrenchment of management at dual class firms leads to a discount in the market. Smart and Zutter (2003) find that dual class initial public offerings (IPOs) are priced lower than non-dual class IPOs, and Smart et al. (2008) observe that this discount persists for at least five years after the firm becomes publicly traded. Similarly,

Gompers et al. (2010) show that firm value, as measured by Tobin's Q, decreases in the wedge between insiders' voting rights and cash flow rights in a large sample of US dual class firms. This result holds when examining the effects of voting power and cash flow separately; firm value is positively associated with insider cash flow rights and negatively associated with inside voting rights. An important contribution of this article is that it is the first comprehensive hand-collected sample of US dual class firms. Claessens et al. (2002) and Smith et al. (2009) also observe lower prices for dual class firms than non-dual class firms in Asia and Canada, respectively. However, while dual class firms may trade at lower multiples, they seem to reward investors with dividends. Jordan et al. (2012) show that dual class firms pay higher dividend rates, and tend to use regular cash dividends more often than single class firms.

In recent years, a variety of other aspects of dual class firms have also been examined. A number of papers look at earnings properties of dual class firms. Francis et al. (2005) find that the earnings-return relation is weaker for US dual class firms, while Niu (2008) demonstrate similar results for Canadian firms. Earnings management activities, defined as the propensity to just meet or beat analyst forecasts or exhibit abnormal accruals, tend to decrease in manager voting rights and increase in manager cash flow rights (Chen, 2008; Nguyen and Xu, 2010). Both earnings management studies attribute their findings to reduced capital market pressures for dual class firms. Nguyen and Xu (2010) also find that earnings management increases after dual class firms convert their equity into a single class, while Chen (2008) finds there is no break in the earnings distribution around zero for dual class firms. Timely loss reporting (i.e., conditional conservatism) decreases in the wedge between manager voting rights and cash flow rights (Khurana et al., 2013). This result is also consistent with firms with high inside control relative to cash flow facing less pressure from debt markets (e.g., Ball et al., 2005; Nikolaev, 2010).

While in general a dual class structure is associated with worse corporate governance, some studies that have looked at specific aspects of corporate governance have reached different conclusions. Li et al. (2008) and Chung and Zhang (2011) find institutional investment is lower for dual class firms, while Howe and Tamm (2011) and Dey et al. (2012) find the opposite. Howe and Tamm (2011) also note that while dual class firms are less likely to have independent boards, they are less likely to have a chief executive officer in the role of chairman of the board and staggered boards. These findings suggest that dual class firms may attempt to partially mitigate the agency problems engendered by their ownership structure with other mechanisms.

Auditor fees are examined in two samples of Canadian firms. Khalil et al. (2008) and Niu (2008) find that dual class firms pay larger amounts of audit fees and non-audit fees (a measure of auditor independence), respectively. However, dual class firms engage in less tax planning activity, and tax planning declines with the wedge between manager voting and cash flow rights (McGuire et al., 2014).

To my knowledge, only one paper exists concerning voluntary disclosure of dual class firms. Tinaikar (2014) finds that compensation disclosure is lower for firms in dual class firms, and that the quantity of disclosure decreases as the wedge between voting rights and cash flow rights increases.

Concluding this section, a number of papers also examine the reunification of dual class shares in single class recapitalizations. Hauser and Lauterbach (2004) find that owners of previously-superior shares are usually compensated for their loss of influence with additional shares, partially mitigating the decline in corporate control. In samples of European firms, Ehrhardt et al. (2005) find that the cost of equity declines while Dittmann and Ulbricht (2008)

and Maury and Pajuste (2011) observe positive stock price movements when a dual class equity structure is abandoned.

2.3 Sample Selection, Description, and Variable Construction

This paper shares its dual class sample with Forst et al. (2014) and covers the period between 2000 and 2013. This data set consists of dual class firms identified by a difference between the number of shares outstanding as reported by Compustat and CRSP,¹² firms in CRSP with more than one class of traded shares, dual class firms from the Gompers et al. (2010) sample, and firms explicitly identified as dual class by Thomson's SDC Global New Issues database¹³ and RiskMetrics. All potential candidate firm-years (aside from those eliminated due to foreign incorporation status or financial firms, identified with an SIC code between 6000 and 6999) are then researched on the SEC's EDGAR system.

The final dual class status determination, voting and cash flow rights per class, and inside ownership and cash flow data are obtained from proxy statements and 10-Ks on EDGAR. Per previous research and the SEC's own reporting standards, inside ownership is defined as not only stock owned by officers and directors (the "insiders"), but also shares owned by their family members and trusts for the benefit of family members, as well as shares owned by parent or subsidiary corporations with board representation. Shares are counted as being owned by insiders even if ownership is disclaimed for reporting purposes. Further, only shares owned, and not rights to shares (such as options and stock units) are included in the measure of insider ownership. Other corporate governance data such as CEO-Chairman identity, board size, and

¹² CRSP reports shares outstanding for a given stock issue, while Compustat contains shares for all classes of common stock. A difference may indicate multiple classes of common shares.

¹³ With corrections by Jay Ritter. See <http://bear.warrington.ufl.edu/ritter/dual-class-ipo.htm>.

number of independent directors are collected from the same documents. In all, data is collected for 3,951 firm-years representing 566 dual class firms during the sample period.

The main independent variables of interest in Essays I and II is the difference (the “wedge”) between inside voting and cash flow rights, and those terms modelled separately. As in Forst et al. (2014), inside voting rights are a function of the number of shares owned of each class and the votes per share for the election of directors of each class, as well as any further board election rights associated with each class of stock. Calculating voting power this way provides a measure of the influence insiders have in electing the board of directors.

For the majority of firms in our sample, voting power varies across classes due to different numbers of votes per share. However, for a sizeable portion of the sample (18.5%), votes per share across classes are actually equal; the power of one class is instead manifested by the number of directors it is allowed to elect. In dual class firms with these proportional voting rights, some directors are only elected by holders of the superior class, while others (typically a smaller number) may be elected by holders of the inferior class of shares. Some board seats may be voted on by both classes of shares as well.¹⁴ Following Forst et al. (2014), the formula to calculate inside voting power is as follows:

$$\text{Inside Voting Rights (VR)} = \frac{S_i}{S_t} * \text{VotingRightsSuperior} + \frac{I_i}{I_t} * \text{VotingRightsInferior}$$

Where,

$$\text{VotingRightsSuperior} = \frac{\text{SupDir}}{\text{TotDir}} + \frac{\text{JointDir}}{\text{TotDir}} * \left(\frac{S_t * V_S}{S_t * V_S + I_t * V_I} \right)$$

and

$$\text{VotingRightsInferior} = \frac{\text{InfDir}}{\text{TotDir}} + \frac{\text{JointDir}}{\text{TotDir}} * \left(\frac{I_t * V_I}{S_t * V_S + I_t * V_I} \right)$$

¹⁴ I ignore directors elected by preferred stock holders; less than 1% of the sample features these directors.

Variables are defined as follows,

Inside Voting Rights (VR) = the proportion of the board of directors elected by insiders;

VotingRightsSuperior = the proportion of the board of directors elected by holders of the superior class;

VotingRightsInferior = the proportion of the board of directors elected by holders of the inferior class;

S_i = the superior shares held by insiders;

S_t = total superior shares;

I_i = the inferior shares held by insiders;

I_t = total inferior shares;

V_S = votes per superior share;

V_I = votes per inferior share;

SupDir = directors elected only by the superior class;

InfDir = directors elected only by the inferior class;

JointDir = directors elected by both superior and inferior classes jointly;

TotDir = total number of directors.¹⁵

¹⁵ The formulas for firms with more than two classes of shares are extensions of those presented here.

All directors are considered joint for firms without proportional board representation; that is, when no directors are elected solely by holders of the superior or inferior class, all are voted on by the classes of shares together.

The calculation of cash flow rights owned by insiders is as follows:

$$\text{Inside Cash Flow Rights (CFR)} = \frac{S_i * D_S + I_i * D_I}{S_t * D_S + I_t * D_I}$$

Where the new variables introduced are defined as,

D_S = Annual dividend rights per superior share;

D_I = Annual dividend rights per inferior share.

Note that inside cash flow does not strictly depend on actual dividends paid in a given year, but rather the amount that would be paid if dividends were declared as stated in a firm's proxy statement, annual report, corporate charter, or securities registration statement. For the majority of firm-year observations in the sample (90%), cash flow rights are equal across shares. When rights differ, the inferior class usually receives a greater share of dividends than the superior class. Inside cash flow rights per share for the superior class exceed cash flow rights per share for the inferior for less than 2% of my sample firms.

In the examination of dual class firms, the so-called "wedge" between voting rights and cash flow rights is often of importance. Following prior literature (e.g. Gompers et al., 2010), the wedge can be computed as the ratio (Inside Voting Rights / Inside Cash Flow Rights) or a difference (Inside Voting Rights – Inside Cash Flow Rights). In either construction, as voting power increases relative to cash flow rights, so does the wedge. The wedge is informative

relative to the degree excess inside control of a particular firm. Dual class firms with wedge differences approaching 0 (equivalent to a wedge ratio approaching 1) mimic the inside voting and cash flow right pattern of a non-dual class firm. As the difference and ratio values increase, so does the power of insiders relative to the cash flow they command.¹⁶ This paper uses the difference form of the wedge.

¹⁶ Wedge ratios of less than one and wedge differences of less than zero are rarely observed (so called “negative wedge” firms); they comprise about 6% of the dual class sample. The primary purpose of most dual class firms is to empower founders, families, or managers; “negative wedge” firms are unlikely to produce this result.

CHAPTER 3 – Essay I

3.1 Literature Review

3.1.1 Reasons for Disclosure

Much research has centered on the question as to why firms voluntarily disclose information. Grossman (1981) suggests that information users will assume the information provider “is of the worst possible quality consistent with his disclosure” (p.462). The contemporaneous but independently-developed paper of Milgrom (1981) comes to the same conclusion that the information user “assumes that information is withheld only if it is very unfavorable” (p. 382). Both papers dictate that the rational response of information providers in a market is full disclosure of all private information. However, these results are dependent upon a set of assumptions. The six assumptions, as identified by Beyer et al. (2010) in the context of investors demanding information provided by a firm, are as follows: (1) disclosures are costless; (2) investors know firms have private information; (3) all investors interpret information identically and this is known by firms; (4) managers have the goal of firm value maximization; (5) firms’ disclosure of information is truthful; and (6) firms cannot commit to a specific disclosure policy *ex ante*.

These assumptions are widely accepted to be too idealistic, and thus unrealistic, for corporate settings. Yet their identification is useful as it provides a means to examine why firms provide less than full disclosure. For example, information release often is associated with significant costs. Two such costs identified by Wagenhofer (1990) are proprietary costs and political costs.

Releasing proprietary information may exact a toll on a firm by harming its future economic viability if a competitor is able to act on the disclosed information to advance its own market position. Further, even the release of positive economic news may burden a firm politically by increasing the odds that unions or governments will extract rents. Another assumption violation is provided by the findings of Fishman and Hagerty (2003). The authors demonstrate that if both sophisticated and unsophisticated information users exist, and unsophisticated users who are unable or unwilling to understand or act on information constitute a sufficient proportion of the total population, firms will be better off by not releasing voluntary information.

According to Beyer et al. (2010), though the assumptions detailed above may not hold (thus preventing the full so-called “unraveling result”), the logical justification for providing voluntary information in the market is still soundly based in the main findings of Grossman (1981) and Milgrom (1981). Investors will tend to assume that information that is withheld would, if disclosed, have caused investors to lower the value they place on a firm.

There may be additional reasons why managers provide voluntary disclosures in general and earnings forecasts in particular. Noting the relative infrequency of manager earnings forecasts, Ajinkya and Gift (1984) predict and find evidence to support the hypothesis that management issues guidance to correct consensus analyst forecasts that are inaccurate. Direct management communication is more likely when investors rely less on analysts and are subject to large price swings when actual earnings are announced. Exploring another motive, Trueman (1986) suggests that the provision of earnings forecasts demonstrates that management is striving to fulfill its expected duty to foresee changes in market conditions. A release of an earnings estimate by management implies that management is likely to spot future changes of condition and adjust

production levels accordingly. That is, the mere issuance of an earnings forecast, separately from whether that forecast contains good or bad news, provides a positive signal about firm value.

3.1.2 Management Guidance

This essay concentrates on management earnings guidance. Management earnings guidance is one of many methods to voluntarily disclose information about a firm (e.g., including information beyond what is required in annual and quarterly SEC filings, the filing of non-mandated SEC reports, public relations and news releases, analyst and shareholder meetings and conference calls). Management forecasts are an important tool by which managers attempt to set or change earnings expectations in the market, ward off concerns of litigation, and establish their reputation for transparent and truthful reporting (Hirst et al., 2008). Management earnings forecasts are important as they have been shown to affect a variety of markets and intermediaries such as stock prices (e.g., Penman, 1980), credit default swap spreads (Shivakumar et al., 2011), and financial analysts (e.g., Clement et al., 2003), as well as specific types of investors (e.g., Healy et al., 1999). Management forecasts have been found to be “considerably” more informative than earnings announcements (Ball and Shivakumar, 2008) and in fact account for 55% of all accounting-based information based on stock price reactions (Beyer et al., 2010).

While prior literature has not explicitly examined management earnings forecasts of dual class firms, it has addressed such voluntary disclosures for firms that may be, in some senses, related to dual class firms: family-controlled firms and firms with weak corporate governance.

Many dual class firms start as family firms. DeAngelo and DeAngelo (1985) find that a sizeable portion of the dual class firms in their sample feature significant family involvement.

Family ownership roots are also a strong predictor of dual class status (Amoako-Adu and Smith,

2001; Gompers et al., 2010). Ali et al. (2007) also find that family firms are less likely to provide voluntary disclosures about their corporate governance practices, yet more likely to warn about upcoming bad news. Using an author-defined disclosure index that captures users' perceptions of importance, Ho and Wong (2001) find that greater numbers of family members on the boards of Hong Kong-listed firms is negatively associated with voluntary disclosure. Specifically relevant to this essay, Chen et al. (2008) examine the managerial disclosure patterns of 2,043 family firms between 1996 and 2000. They find that family firms hold fewer conference calls and are less likely to issue management guidance due to their longer-term focus. The authors also note that the substitutability of direct monitoring and public disclosure, as developed by Bushman et al. (2004), may play a role as managers tend to be more stringently-monitored at family firms.

Given their potential to have more severe agency problem than non-dual class firms, dual class firms innately suffer from weaker corporate governance than single class firms, *ceteris paribus*. The separation of ownership and control is shown to impact accounting information disclosure (Smith, 1976). A number of papers have studied the association between corporate governance and voluntary disclosures. Gul and Leung (2004) examine chief executive officer (CEO) duality and outside directors and find weaker governance is associated with less voluntary disclosure. In contrast, Ajinkya et al. (2005) find that firms with larger numbers of outside directors and greater institutional ownership are more likely to issue management guidance and issue more frequent forecasts. Outside directors are also positively associated with voluntary disclosure in a sample of Irish firms (Donnelly and Mulcahy, 2008). Karamanou and Vafeas (2005) broadly find a positive relation between corporate governance characteristics and disclosure policies, including management earnings guidance. Using a sample of 275 Fortune 500 firms between 1995 and 2000, the authors find that firms with more effective governance

structures (i.e., a larger number of outside directors, lower inside ownership, greater institutional ownership) are more likely to give earnings guidance, especially when news is bad.

One particular aspect of corporate governance that is of interest to this study is inside ownership. Prior research has documented mixed evidence on the relationship between inside ownership and voluntary disclosures. A number of studies have shown a negative association between inside ownership and voluntary disclosure. Using a sample of firms in Hong Kong and Singapore, Chau and Gray (2002) show that outside ownership is associated with greater levels of voluntary disclosure in annual reports. Nagar et al. (2003) find that inside ownership is negatively related to the number of management forecasts issued and Association for Investment Management and Research (AIMR) scores, while management stock-based compensation is positively associated with disclosures. Assessing corporate governance by examining board composition and ownership structure, Eng and Mak's (2003) results show that managerial ownership is negatively related to voluntary disclosures (measured with a score sheet for strategic, non-financial, and financial information in the discussion portion of the annual report) for a sample of Singaporean firms. Other papers also examine how managerial ownership relates to voluntary disclosure quality. Baek et al. (2009) partition their sample by whether overall managerial ownership is less or greater than five percent. The authors find a negative relationship between the ownership level of the top five managers and three of four discretionary S&P Transparency and Disclosure Survey scores, including overall disclosure, for firms with less than five percent managerial ownership. There is no significant association between managerial ownership and the four disclosure scores for firms with greater than five percent managerial ownership.

A host of other studies, however, fail to find a relation between inside ownership and voluntary disclosures. Gelb (2000) compares inside ownership and voluntary disclosure, as measured by the AIMR Investor Relations ranking, but does not find significant results; inside ownership does not appear to influence non-mandatory disclosures. Donnelly and Mulcahy (2008) do not find an effect of insider ownership in a sample of Irish firms. Makhija and Patton (2004) also fail to find a significant impact of management ownership on voluntary disclosure for firms in the Czech Republic.¹⁷ Finally, there exist two papers that examine voluntary disclosures for firms with unequal voting and cash flow rights. For a sample of Asian companies, Lee (2007) finds that disclosure decreases for firms with a greater separation in voting and cash flow rights in regards to the inclusion of specific items in annual reports per Standard and Poor's Transparency and Disclosure Methodology. However, this effect is lessened by the presence of a large non-management shareholder. Tinaikar (2014) finds that compensation disclosure, measured using contextual analysis, is worse for dual class firms, and that disclosure decreases in voting rights and increases in cash flow rights.

Specifically concerning management guidance, Karamanou and Vafeas (2005) and Baik et al. (2010) find that inside ownership is associated with a lower probability of management generating a point versus a range forecast (range forecasts being more conservative and potentially less likely to mislead). Mak (1991) finds that while operating history and industry are significant in explaining management forecast practices for a sample of firms from New Zealand, inside ownership again is not.¹⁸ Two additional studies examine the impact of inside ownership

¹⁷ This Czech sample is interesting as it represents a natural experiment of sorts. The sample year of 1993 coincides with the Czech Republic's transition to capitalism. At this time ownership structure was mostly exogenous and financial reports were nearly completely voluntary; there were very few minimum standards of disclosure to be followed.

¹⁸ Nasir and Abdullah (2004) find a strong positive relationship between managerial ownership and voluntary disclosure in study using Malaysian firms.

and management forecasts directly. Ruland et al. (1990) use a probit model to study the relationship between the likelihood of issuing a management earnings forecast and insider stock holdings. Results indicate that firms with a higher level of inside ownership are less likely to issue management earnings forecasts. Noe (1995) finds that firms with high managerial ownership are *more* likely to issue forecasts before selling shares.

3.2 Hypotheses Development

Inside ownership of shares may impact the decision as to whether management chooses to issue earnings forecasts, and furthermore, the form and accuracy of such guidance. Prior literature is inconclusive as to the effect that inside ownership may have on the issuance of guidance. For example, there exist some studies which find that the prevalence of earnings forecasts declines as managerial shareholding increases (e.g., Ruland et al., 1990; Nagar et al., 2003; Karamanou and Vafeas, 2005; Baik, 2010), while other studies (e.g., Mak, 1991) fail to find a relation. Furthermore, Noe (1995) finds a positive relation between managerial ownership and the likelihood of forecast issuance.

The reason for the lack of conclusive evidence regarding earnings guidance and insider ownership may be due to the conflicting forces imparted by insider ownership: entrenchment and incentive-alignment. The extent of insiders' entrenchment is measured by the share of inside voting rights relative to all voting rights; the extent of their incentive-alignment is measured by the share of inside cash flow to all cash flow. The sign of the relationship between earnings guidance and inside ownership may be due to which force dominates – if indeed either does. If neither force clearly dominates the other, there is a chance that no effect of inside ownership will be observed. For non-dual class firms, each share owned by insiders (and outsiders) has equal

voting and dividend rights. Ownership provides managers equal parts of voting and cash flow rights, and so the effect of either individually is confounded. In dual class firms, the opposing forces can be differentially studied by examining insider's voting rights and cash flow rights, and the separation between these two constructs known as the wedge.

Prior literature generally finds that as managerial power grows relative to cash flow, the amount of information provided by firms decreases. Fan and Wong (2002) and Francis et al. (2005) both find a similar effect of dual class firms in East Asia and the United States, respectively. In each study, the authors attribute the decreased informativeness of earnings to two separate, but complimentary, arguments: the entrenchment argument and the information argument.

In general, the entrenchment argument states that as managers' power grows they will have an increased ability to control the overall financial reporting process. These insiders also have the incentive to report at least partially out of self-interest and to hide any wealth-expropriation activities within aggregate earnings numbers (Fan and Wong, 2002). The information argument in Fan and Wong (2002) centers around the release of proprietary information. Concentrated management may be able to better control the release of proprietary information by closely overseeing which individuals possess specific knowledge and distribute control rights accordingly. With managers in control of the firm and its reporting policies and practices, they can ensure that key information about a firm does not accidentally leak to the public and competitors, and that information can be censored when its release could harm the firm's well-being.

In the context of management guidance, both the entrenchment and information arguments may play a role in determining if and how managers release earnings forecasts. The

entrenchment effect could serve to limit the release of negative information about a firm because managers, free to determine whether or not information should be released, may decline to do so when news is bad. The information argument may also come into play in the decision to issue guidance if news is good. In a good news situation, managers may rather keep that information private in order to not convey that fact to competitors or authorities before it is necessary.

According to Karamanou and Vafeas (2005), proprietary costs are a major reason why firms choose not to issue forecasts (p. 458).

Furthermore, Karamanou and Vafeas (2005) reason that while management earnings guidance helps to reduce agency conflicts, its usefulness is a function of the incentives the board of directors presents to management to protect shareholders. Yet in dual class firms, control of the board is often in the hands of management itself. Consequently it is unlikely to objectively monitor the quality of disclosure made by management in the interest of outside shareholders. Consistent with this reasoning, the authors find that managers are more likely to generate an earnings forecast when firms have more effective boards and audit committees.

Along similar lines but taking a slightly different approach, Lee (2007) finds that voluntary disclosure decreases in the separation between control and cash flow rights due to a desire for management to conceal private benefits of control. Tinaikar (2014) argue and present evidence that dual class firms tend to be more opaque for generally the same reason.

There exists another reason why firms with greater manager voting rights relative to cash flow rights choose to issue less management guidance: market pressure. As described by Hirst et al. (2008), management earnings forecasts are an important channel by which managers attempt to establish their reputation for truthful and transparent reporting. It has already been established that managers with high control rights may not value informative and transparent disclosure as

much as they value their own perception, perquisite consumption, and keeping proprietary information private. Thus, producing guidance may not serve the interests of entrenched managers at firms with a large wedge.

Additionally, Hirst et al. (2008) state that issuing management earnings forecasts is an important way management informs both markets and analysts of performance expectations. This role of issuing guidance is quite substantial; for example, management forecasts are more informative than earnings announcements and represent more than half of all accounting-based information based on stock price reactions (Ball and Shivakumar, 2008; Beyer et al., 2010). Yet entrenched management tends to be insulated from market pressure (Chen, 2008; Nguyen and Xu, 2010), and may be at lower risk of losing their jobs if they miss quarterly earnings targets, for example.¹⁹ Also firms with high inside ownership relative to cash flow are less reliant on the market for funding. Arugaslan et al. (2010) find that the primary reason most dual class firms go public is to reduce the costs associated with a lack of diversification, not raise money for projects or other business needs. If management does not feel a need to please the markets, they will likely place less emphasis on providing those markets with key inputs to develop crucial expectations of earnings.

Incentive-alignment, measured by insiders' participation in dividends, will tend to produce opposite effects to that of entrenchment. The greater the amount of cash flow accruing to insiders, the more likely they are to run their firms with firm value maximization as the primary goal. They may also be less likely to consume excess perquisites and withhold information desired by market participants. As a result, greater openness will tend to develop between management and investors.

¹⁹ Insulation from the pressures of the market may have negative or positive effects. For example, a potential benefit is that it may free management to concentrate on generating long-term value rather than meeting quarterly Wall Street earnings targets.

Because the wedge captures the difference between inside voting and cash flow rights and is a measure of how entrenched management is at a given firm, I expect that a larger wedge will be associated with fewer management earnings forecasts. I also expect that the likelihood of issuing a management earnings forecast will be decreasing in insiders' voting rights (a measure of entrenchment) and increasing in insiders' cash flow rights (a measure of incentive alignment). The greater managers' share of total cash flow is, the more likely they are to be forthcoming with information and to please external shareholders in general.

Therefore, I formally hypothesize the following:

H1a: The propensity to issue management guidance is negatively associated with the wedge between insiders' voting and cash flow rights.

H1b: The propensity to issue management guidance is negatively associated with insiders' voting rights.

H1c: The propensity to issue management guidance is positively associated with insiders' cash flow rights.

For those firms providing management forecasts, Essay I next considers the likelihood of management providing a point or a range forecast. I predict entrenched managers are less likely to generate point forecasts for two reasons. First, as in the development of my first set of hypotheses, proprietary costs are likely to play a role. Bamber and Cheon (1998) find that managers facing higher proprietary information costs are more likely to issue a less-specific forecast. Second, costs of generating a forecast also are likely to be higher for point, rather than range, forecasts. A point forecast requires that managers gather greater amounts of information –

potentially costing more money, time, and effort. A range forecast, on the other hand, is more amenable to the use of estimates and best guesses. Thus management should be able to generate range forecasts with less effort. As discussed earlier, when voting rights substantially exceed cash flow rights, the impetus to issue earnings guidance is reduced. Under this scenario, it is unlikely that managers will readily undertake the additional work to produce specific point forecasts.

Managers with greater cash flow participation may undertake additional effort to provide precise earnings forecasts. Similar to the reasoning for my first set of hypotheses, management that receives a greater share of dividends is more likely to work hard to please the expectations of the market. Given that management guidance is an important input for the investment decisions of market participants, managers who have investors' interests in mind are more likely to issue precise estimates of future earnings. This takes guesswork out of decision making for market participants and presents a clearer prediction of firm performance.

As a result, I formally hypothesize:

H2a: The propensity to issue a point versus a range forecast is negatively associated with the wedge between insiders' voting and cash flow rights.

H2b: The propensity to issue a point versus a range forecast is negatively associated with insiders' voting rights.

H2c: The propensity to issue a point versus a range forecast is positively associated with insiders' cash flow rights.

I predict accuracy may decrease in the wedge between voting and cash flow rights. Better corporate governance is associated with more accurate forecasts (Karamanou and Vafeas, 2005), and so the worse corporate governance environment of firms with a high degree of dual classness may result in less accurate forecasts. Further, as discussed, both Chen (2008) and Nguyen and Xu (2010) find less earnings management as insider voting rights diverge from cash flow rights due to firms being insulated from market pressure. If this is the case, then management may invest less effort in producing management earnings forecasts. Apathy towards the market may manifest itself in less accurate point and range forecasts.

Similar to my first and second hypotheses, managers with a large share of cash flow are more likely to have a greater sensitivity to market pressures. They are thus more likely to invest the time and money in generating accurate point forecasts as this provides the market with the truest measure of likely future earnings. As a result, inside cash flow is likely to be associated with more accurate forecasts.

I thus formally state my hypotheses as follows:

H3a: The accuracy of point management forecasts is negatively associated with the wedge between insiders' voting and cash flow rights.

H3b: The accuracy of point management forecasts is negatively associated with insiders' voting rights.

H3c: The accuracy of point management forecasts is positively associated with insiders' cash flow rights.

3.3 Methodology

This essay develops models similar to those of Karamanou and Vafeas (2005) in examining the relationship between the wedge and management earnings forecast properties.

To test H1a, I use Logit regression to estimate the following model:

$$\begin{aligned}
 FORECAST_{i,t} = & \beta_0 + \beta_1 WEDGE_{i,t} + \beta_2 PCTIND_{i,t} + \beta_3 BSIZE_{i,t} + \beta_4 INST_{i,t} + \beta_5 BADI_{i,t} + \\
 & \beta_6 DISP_{i,t} + \beta_7 FOLLOW_{i,t} + \beta_8 HIGHTECH_{i,t} + \beta_9 \ln SIZE_{i,t} + \sum \delta_{11} IND_{i,j} + \sum \delta_{12} YEAR_{i,t} + \varepsilon_{i,t}
 \end{aligned}
 \tag{1a}$$

Where, for firm i and year t :

$FORECAST$ = a dummy variable that takes a value of 1 if a firm's management issues an earnings forecast for a given year end and 0 otherwise;

$WEDGE$ = the difference between inside voting rights and inside cash flow rights. See section 2.3 for a discussion of this variable and details of computation;

$PCTIND$ = the percentage of insiders on the board of directors;

$BSIZE$ = the size of the board of directors;

$INST$ = the fraction of institutional ownership;

$BADI$ = a dummy variable that takes a value of 1 for if actual earnings are less than the consensus analyst forecast three months before fiscal year end, and 0 otherwise;

$DISP$ = the standard deviation of financial analysts' earnings forecasts three months prior to fiscal year end;

$FOLLOW$ = the number of financial analysts following a firm;

HIGHTECH = a dummy variable that takes a value of 1 for firms that are in high-technology industries, specifically SIC 2833-2836, 3570-3577, 3600-3674, 7371 – 7379, and 8731-8734, and 0 otherwise;

lnSIZE = a proxy of firm size, measured as the natural log of market value of equity.

All models also include Fama and French (1997) industry and year indicator variables.

In line with H1a, I expect a negative coefficient on *WEDGE*: as the separation between inside voting rights and cash flow rights grows, I predict the likelihood of issuing an earnings forecast declines. The control variables primarily come from Karamanou and Vafeas (2005). The first three (*PCTIND*, *Bsize*, and *INST*) are measures of corporate governance and represent the variables of interest in Karamanou and Vafeas (2005). Controlling for corporate governance is important as these variables have been shown to impact management guidance issuance, and I predict an effect of the wedge in excess of these variables. It should be noted that I exclude from my model corporate governance variables in Karamanou and Vafeas (2005) that were not generally shown to be significant (such as the number of board meetings, and audit committee variables). I also exclude inside ownership as I am interested in the effect of the separation of inside voting and cash flow rights measured by *WEDGE*, my primary variable of interest.

Other control variables generally reflect aspects of the information environment of the firm. Analyst forecast dispersion tends to increase as the information environment of the firm worsens (Lang and Lundholm, 1996) and uncertainty increases (Barron and Stuercke, 1998). Firms with greater analyst following tend to have lower information asymmetry (Lang and Lundholm, 1996), as do larger firms (Brown et al., 1987). Per Kasznik and Lev (1995), high-technology firms may be more likely to face litigation and so tend to be more forthcoming with guidance.

Additionally, following Karamanou and Vafeas (2005) I control for whether the firm fails to meet the consensus analyst forecast for a given year.

To differentially test the impact of insiders' voting and cash flow rights on forecast issuance per H1b and H1c respectively, I replace *WEDGE* with insiders' voting rights (*VR*) and insiders' cash flow rights (*CFR*) as follows:

$$\begin{aligned} FORECAST_{i,t} = & \beta_0 + \beta_1 VR_{i,t} + \beta_2 CFR_{i,t} + \beta_3 PCTIND_{i,t} + \beta_4 BSIZE_{i,t} + \beta_5 INST_{i,t} + \beta_6 BADI_{i,t} + \\ & \beta_7 DISP_{i,t} + \beta_8 FOLLOW_{i,t} + \beta_9 HIGHTECH_{i,t} + \beta_{10} \ln SIZE_{i,t} + \sum \delta_{11} IND_{i,j} + \sum \delta_{12} YEAR_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (1b)$$

Where,

VR = insiders' voting rights. See section 2.3 for a discussion of this variable and exact computation;

CFR = insiders' cash flow rights. See section 2.3 for a discussion of this variable and exact computation.

I expect the coefficient on *VR* to be negative (greater control rights lead to a lower likelihood of issuing earnings guidance) and the coefficient on *CFR* to be positive.

I test H2a and H2b-c using the following logistic regression models:

$$\begin{aligned} POINT_{i,t} = & \beta_0 + \beta_1 WEDGE_{i,t} + \beta_2 PCTIND_{i,t} + \beta_3 BSIZE_{i,t} + \beta_4 INST_{i,t} + \beta_5 BAD2_{i,t} + \beta_6 DISP_{i,t} + \\ & \beta_7 FOLLOW_{i,t} + \beta_8 HIGHTECH_{i,t} + \beta_9 \ln SIZE_{i,t} + \sum \delta_{11} IND_{i,j} + \sum \delta_{12} YEAR_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (2a)$$

$$\begin{aligned}
POINT_{i,t} = & \beta_0 + \beta_1 VR_{i,t} + \beta_2 CFR_{i,t} + \beta_3 PCTIND_{i,t} + \beta_4 BSIZE_{i,t} + \beta_5 INST_{i,t} + \beta_6 BAD2_{i,t} + \\
& \beta_7 DISP_{i,t} + \beta_8 FOLLOW_{i,t} + \beta_9 HIGHTECH_{i,t} + \beta_{10} \ln SIZE_{i,t} + \sum \delta_{11} IND_{i,j} + \sum \delta_{12} YEAR_{i,t} + \varepsilon_{i,t}
\end{aligned}
\tag{2b}$$

Where, for firm i and year t the variables not previously defined are:

$POINT$ = a dummy variable that takes a value of 1 if a manager issues a point forecast, and 0 if the manager issues a range, open-ended, or qualitative forecast.

$BAD2$ = a dummy variable that takes a value of 1 for management forecasts that are less than the most recent consensus forecast prior fiscal year end, 0 otherwise.

This model is similar to the first. In addition to a different dependent variable however, the definition of the variable $BAD2$ is altered slightly from $BAD1$ per Karamanou and Vafeas (2005). $BAD2$ is a dummy variable that takes a value of 1 for management forecasts that are less than the consensus forecast three months prior to fiscal year end. I predict a negative coefficient on $WEDGE$ and VR , and a positive coefficient CFR in accordance with hypotheses H2a-c.

Finally, I use ordinary least squares regression to test H3a and H3b-c:

$$\begin{aligned}
AbsMFE_{i,t} = & \beta_0 + \beta_1 WEDGE_{i,t} + \beta_2 PCTIND_{i,t} + \beta_3 BSIZE_{i,t} + \beta_4 INST_{i,t} + \beta_5 BAD2_{i,t} + \beta_6 DISP_{i,t} \\
& + \beta_7 FOLLOW_{i,t} + \beta_8 HIGHTECH_{i,t} + \beta_9 \ln SIZE_{i,t} + \beta_{10} MGRHOR_{i,t} + \sum \delta_{11} IND_{i,j} + \sum \delta_{12} YEAR_{i,t} + \\
& \varepsilon_{i,t}
\end{aligned}
\tag{3a}$$

$$\begin{aligned}
AbsMFE_{i,t} = & \beta_0 + \beta_1 VR_{i,t} + \beta_2 CFR_{i,t} + \beta_3 PCTIND_{i,t} + \beta_4 BSIZE_{i,t} + \beta_5 INST_{i,t} + \beta_6 BAD2_{i,t} + \\
& \beta_7 DISP_{i,t} + \beta_8 FOLLOW_{i,t} + \beta_9 HIGHTECH_{i,t} + \beta_{10} lnSIZE_{i,t} + \beta_{11} MGRHOR_{i,t} + \sum \delta_{11} IND_{i,j} + \\
& \sum \delta_{12} YEAR_{i,t} + \varepsilon_{i,t}
\end{aligned} \tag{3b}$$

Where, for firm i and year t the variables not previously defined are:

$AbsMFE$ = absolute value of management forecast error, constructed as the absolute difference between the management forecast and actual earnings, scaled by the actual value of earnings;

$MGRHOR$ = the number of days between the date of the management forecast and fiscal year end.

To assess accuracy, I restrict the sample to those firms which have used a point forecast. The dependent variable is absolute forecast error, is constructed in a similar manner as Karamanou and Vafeas (2005). Horizon is added as an important control variable as forecasts made farther from the end of the fiscal period are likely to suffer greater errors, as found by Karamanou and Vafeas (2005). I predict a positive coefficient on $WEDGE$ and VR , and a negative coefficient CFR in accordance with hypotheses H3a-c.

3.4 Data Sources and Sample Selection

This essay shares its dual class sample with Forst et al. (2014) and covers the period 2000 - 2012. This data set consists of dual class firms identified by a difference between the number of shares outstanding as reported by Compustat and CRSP,²⁰ firms in CRSP with more than one class of traded shares, dual class firms from the Gompers et al. (2010) sample, and firms explicitly identified as dual class by Thomson's SDC Global New Issues database²¹ and RiskMetrics. All potential candidate firm-years (aside from those eliminated due to foreign incorporation status or financial firms, identified with an SIC code between 6000 and 6999) are then researched on the SEC's EDGAR system.

Final dual class status determination, voting and cash flow rights per class, and inside ownership and cash flow data are obtained from proxy statements and 10-Ks on EDGAR. Per previous research and the SEC's own reporting standards, inside ownership is defined as not only stock owned by officers and directors, but also shares owned by their family members, or trusts for the benefit of family members, as well as shares owned by parent or subsidiary corporations with board representation. Shares are counted as being owned by insiders even if ownership is disclaimed for reporting purposes. Further, only shares owned, and not rights to shares (such as options and stock units) are included in the measure of insider ownership. In addition, other corporate governance data such as CEO-Chairman identity, board size, and number of independent directors are collected from the same documents.

I obtain management guidance data from publicly-available news releases as identified by Factiva, a news aggregator owned by Dow Jones and Company. Factiva scans over 30,000 sources (including newspapers, magazines, and transcripts) for key search terms. I search using

²⁰ CRSP reports shares outstanding for a given stock issue, while Compustat contains shares for all classes of common stock. A difference may indicate multiple classes of common shares.

²¹ With corrections by Jay Ritter. See <http://bear.warrington.ufl.edu/ritter/dual-class-ipo.htm>.

the terms “management earnings forecast” and “management earnings guidance.” I search for management guidance data for years 2000 through 2012. I keep only the most recent forecast for a given fiscal year end and obtain 366 management earnings forecasts for my firms of interest (99 firms).

The main independent variables of interest in this paper are the wedge between insider voting and cash flow rights, and those terms modelled separately. As in Forst et al. (2014), inside voting rights are a function of the number of shares owned of each class and the votes per share for the election of directors of each class, as well as any further board election rights associated with each class of stock. Calculating voting power this way provides a measure of the influence insiders have in electing the board of directors. Inside cash flow rights are computed from dividend rights per class of stock.

Firm accounting data comes from Compustat, return information from CRSP, and analyst variables from the Institutional Brokers’ Estimate System (I/B/E/S). Institutional ownership is obtained from Thomson Reuters, while governance characteristics are hand collected from proxy statements (SEC Form DEF-14A) and 10-Ks. After matching with necessary data sources, the sample size to test my first set of hypotheses is 2,247 firm-year observations (372 firms). For my second and third set of hypotheses, which require a management earnings forecast, my sample size is 337 observations (85 firms).

3.5 Descriptive Statistics

[Insert Table 1 about here]

Table 1 presents descriptive statistics for the sample. Of the 2,247 dual class firm-year observations, 15% (337) have forecasts available.²² Of these 337, the majority of observations take the form of ranges; just over 13% of those are point earnings forecasts. The average absolute forecast error is 27.4%, while the average signed forecast error is 20.2%. Thus there is a fair degree of error present in managers' forecasts, and that the estimates tend to be greater than actual earnings.

The average wedge across the 2,247 observations is 29.2%. Insiders typically hold nearly thirty percent more voting rights than cash flow rights, and also usually have a majority of votes at the dual class firms in my sample (56.4%) and correspondingly lower share of cash flows (27.2%). Boards of directors for my sample firms are on average more than half independent (62%) and comprised of about nine directors (8.9). Institutional investors hold over two-thirds of the shares of firms in my sample (67.8%), but due to the dual class nature of the firms in the sample this does not result in the same level of control as it would in non-dual class firms. The firms in my sample are fairly large with a mean market capitalization of \$3.7 billion and well-followed by analysts (an average of over 7 per firm-year observation).²³ Managers typically

²² The observed frequency of forecasts for my sample is lower than the true value. This is because my sample is hand-collected from Factiva. While Factiva has a great deal of information regarding managerial guidance, there are also a lot of missing data, as evidenced by gaps in time series and a cross check of Factiva data against other sources of data.

²³ Due to the need to control for analyst forecast dispersion, I eliminate dual class firm-year observations with only one analyst providing an earnings estimate in the construction of my sample.

generate their final forecast about four months before fiscal year end (average horizon of 121 days).

[Insert Table 2 about here]

Correlations are presented in Table 2. Contrary to expectations regarding my first hypothesis, there is a significant and positive correlation between the issuance of forecasts and the wedge (correlation coefficient = 0.0858, p-value = <.0001). While voting rights are positively correlated with forecasts, the correlation is not significant. Cash flow rights are significantly negatively correlated with forecasts, again contrary to my first hypothesis. *WEDGE* and *VR* are negatively associated with the propensity to issue point forecasts, although the correlations are not significant. Cash flow rights are also significant and negatively correlated with point forecasts, also opposite to what I predict in my second hypothesis. *WEDGE* and *VR* are positively associated with greater absolute managerial forecast error, but again these correlations are not significant. Contrary to my third hypothesis, cash flow rights are also positively associated with greater absolute managerial forecast error. Independent boards, institutional ownership, greater analyst coverage, and larger firms are more likely to issue forecasts. Independent directors are associated with greater forecast accuracy, while, intuitively, longer forecast horizons are associated with lower forecast accuracy. Correlations between control variables are low (less than 0.30), reducing concerns of multicollinearity.

3.6 Results of Hypotheses Tests

3.6.1 Primary Hypotheses Tests

[Insert Table 3 about here]

Table 3 presents the results of testing my first set of hypotheses. In the column A, the coefficient estimate on *WEDGE* is positive but not significant. Thus I am unable to reject H1a; wedge is not significantly associated with the likelihood of management issuing earnings guidance. Similar to the findings of Karamanou and Vafeas (2005), institutional ownership and analyst following are both positively related with forecast issuance, although I find that bad news is negatively related to forecast issuance while Karamanou and Vafeas find the opposite. The second column presents the results of the tests of H1b and H1c. Neither inside voting rights or cash flow rights is significant, and I am therefore unable to reject parts b and c of my first hypothesis. Results for the control variables in the column B are extremely similar to the first.

[Insert Table 4 about here]

Results for my second set of hypotheses concerning the type of forecast issued are presented in Table 4. The coefficient on *WEDGE* is not significantly associated with the likelihood of managers generating a point forecast ($p\text{-value} = 0.8755$). Of the significant control variables, the percentage of independent directors is positively associated with managers generating a point forecast, opposite to the finding of Karamanou and Vafeas (2005). Also, *HIGHTECH* is negative and significant; Karamanou and Vafeas find a negative but non-significant coefficient on

HIGHTECH. The second column of Table 4 presents the results of testing H2b and H2c. Neither inside voting rights or inside cash flow rights are significantly associated with the likelihood of managers generating a point forecast (p-values of 0.0854 and 0.9937 respectively). As a result I am unable to reject H2b or H2c.

[Insert Table 5 about here]

Table 5 presents the results of testing my third hypothesis regarding managerial forecast accuracy. *Wedge* is not significantly associated with management forecast error (p-value = 0.9767). I thus fail to reject H3a. Of the significant controls, bad news and size are both associated with more accurate forecasts, as is, surprisingly, greater analyst forecast dispersion. *VR* and *CFR* are also non-significant (p-values of 0.9783 and 0.8938). As a result I am unable to reject H3b or H3c.

3.6.2 Additional Analyses

In additional analyses I also examine the association between *WEDGE* (and *VR* and *CFR*) and signed management forecast error. As shown in the column A of Table 6, *WEDGE* is not significantly related to management forecast error (p-value of 0.9216). In column B, *VR* and *CFR* are also not significantly associated with signed management forecast accuracy (p-values of 0.9047 and 0.8948).

One worry may be that observed results are a function of correlated omitted variables. One method to address this issue is the usage of a fixed-effects model. Fixed-effects models include a

separate intercept for each firm in the sample, allowing correlated time-invariant firm-specific characteristics to “wash out.” However, for fixed-effects to be applied, there must be at least two year observations for each firm and the wedge and language characteristics must vary over time. These requirements reduce the sample to 67 firms (229 observations). Tables 7 and 8 present the results of absolute and signed forecast error using fixed-effects models. Results overall are consistent with the previously-reported OLS results: the coefficients on *WEDGE*, *VR*, and *CFR* remain non-significant. Also, the test for no fixed effects is unable to reject the null (p-value = 0.68 in Column A and 0.70 in column B in Table 7; p-value = 0.66 in Column A and 0.69 in column B in Table 8). Thus fixed effects do not appear to be biasing the observed results.

[Insert Table 6 about here]

[Insert Table 7 about here]

[Insert Table 8 about here]

Tables – Chapter 3

Table 1: Essay I Descriptive Statistics

	N	Mean	Std. Dev.	1 st Percentile	Q1	Median	Q3	99 th Percentile
<i>Dependent variables</i>								
FORECAST	2,247	0.150	0.357	0.000	0.000	0.000	0.000	1.000
POINT	337	0.134	0.341	0.000	0.000	0.000	0.000	1.000
AbsMFE	337	0.274	2.117	0.000	0.019	0.060	0.347	10.000
MFE	337	0.202	2.125	-1.800	-0.037	-0.004	0.188	8.786
<i>Variables of interest</i>								
WEDGE	2,247	0.292	0.198	-0.109	0.151	0.293	0.428	0.891
VR	2,247	0.564	0.266	0.002	0.368	0.602	0.758	1.000
CFR	2,247	0.272	0.210	0.004	0.107	0.216	0.401	0.862
<i>Controls</i>								
PCTIND	2,247	0.620	0.162	0.200	0.500	0.625	0.727	0.909
BSIZE	2,247	8.900	2.325	5.000	7.000	9.000	10.000	15.000
INST	2,247	0.678	0.226	0.100	0.538	0.713	0.855	1.000
BAD1	2,247	0.404	0.491	0.000	0.000	0.000	1.000	1.000
BAD2	2,247	0.914	0.281	0.000	1.000	1.000	1.000	1.000
DISP	2,247	0.016	0.095	0.000	0.001	0.002	0.005	0.259
FOLLOW	2,247	7.477	6.150	2.000	3.000	5.000	10.000	28.000
HIGHTECH	2,247	0.119	0.324	0.000	0.000	0.000	0.000	1.000
SIZE	2,247	3,703.289	13,861.818	16.788	227.939	683.980	1,974.700	68,166.823
MGRHOR	337	120.703	107.133	1.000	58.000	70.000	159.000	371.000

The sample represents 2,247 firm-years (372 unique firms). Variable definitions FORECAST = a dummy variable that takes a value of 1 if a firm's management issues an earnings forecast for a given year end and 0 otherwise; POINT = a dummy variable that takes a value of 1 if a manager issues a point forecast, and 0 if the manager issues a range, open-ended, or qualitative forecast. AbsMFE = absolute value of management forecast error, constructed as the absolute difference between the management forecast and actual earnings, scaled by the actual value of earnings; MFE = management forecast error, constructed as the difference between the management forecast and actual earnings, scaled by the actual value of earnings; WEDGE = the difference between inside voting rights and inside cash flow rights. See section 2.3 for a discussion of this variable and details of computation; PCTIND = the percentage of insiders on the board of directors; BSIZE = the size of the

board of directors; INST = the fraction of institutional ownership; BAD1 = a dummy variable that takes a value of 1 for if actual earnings are less than the consensus analyst forecast three months before fiscal year end, and 0 otherwise; BAD2 = a dummy variable that takes a value of 1 for management forecasts that are less than the most recent consensus forecast prior to fiscal year end, 0 otherwise. DISP = the standard deviation of financial analysts' earnings forecasts three months prior to fiscal year end; FOLLOW = the number of financial analysts following a firm; HIGHTECH = a dummy variable that takes a value of 1 for firms that are in high-technology industries, specifically SIC 2833-2836, 3570-3577, 3600-3674, 7371 – 7379, and 8731-8734, and 0 otherwise; SIZE = a proxy of firm size, measured as market value of equity in millions of dollars. MGRHOR = the number of days between the date of the management forecast and fiscal year end.

Table 2: Essay I Correlations

Pearson (Above Diagonal) & Spearman (Below)

	FORE-CAST	POINT	Abs MFE	WEDGE	VR	CFR	PCT IND	BSIZE	INST	BAD1	BAD2	DISP	FOL-LOW	HIGH TECH	lnSIZE	MGR-HOR
FORE-CAST	1			0.087 ($<.001$)	-0.001 (0.968)	-0.083 ($<.001$)	0.070 (0.001)	0.032 (0.129)	0.206 ($<.001$)	-0.094 ($<.001$)	-0.0732 ($<.001$)	-0.055 (0.009)	0.157 ($<.001$)	-0.019 (0.357)	0.137 ($<.001$)	1
POINT	1	1	0.070 (0.199)	-0.012 (0.830)	-0.060 (0.276)	-0.084 (0.123)	0.083 (0.131)	-0.023 (0.676)	0.010 (0.855)	0.015 (0.785)	0.037 (0.538)	0.013 (0.816)	-0.014 (0.803)	-0.105 (0.054)	0.040 (0.462)	-0.006 (0.916)
AbsMFE	1	-0.104 (0.056)	1	-0.016 (0.763)	-0.015 (0.788)	-0.003 (0.955)	-0.038 (0.491)	0.002 (0.977)	0.028 (0.615)	0.015 (0.787)	-0.042 (0.441)	-0.034 (0.539)	0.017 (0.760)	-0.010 (0.859)	-0.039 (0.480)	0.116 (0.034)
WEDGE	0.058 ($<.001$)	-0.053 (0.336)	0.065 (0.235)	1	0.626 ($<.001$)	-0.151 ($<.001$)	-0.038 (0.075)	0.035 (0.095)	0.235 ($<.001$)	0.044 (0.039)	-0.084 ($<.001$)	0.054 (0.010)	0.037 (0.076)	-0.080 ($<.001$)	0.075 ($<.001$)	-0.108 (0.048)
VR	0.014 (0.520)	-0.038 (0.490)	0.079 (0.147)	0.594 ($<.001$)	1	0.676 ($<.001$)	-0.246 ($<.001$)	-0.087 ($<.001$)	-0.105 ($<.001$)	0.066 (0.002)	-0.045 (0.032)	0.079 ($<.001$)	-0.082 ($<.001$)	-0.077 ($<.001$)	-0.144 ($<.001$)	-0.060 (0.271)
CFR	-0.065 (0.002)	-0.114 (0.037)	0.115 (0.035)	-0.026 (0.226)	0.693 ($<.001$)	1	-0.276 ($<.001$)	-0.087 ($<.001$)	-0.355 ($<.001$)	0.042 (0.047)	0.022 (0.290)	0.049 (0.020)	-0.140 ($<.001$)	-0.022 (0.305)	-0.254 ($<.001$)	0.040 (0.463)
PCTIND	0.066 (0.002)	0.084 (0.122)	-0.231 ($<.001$)	-0.063 (0.003)	-0.222 ($<.001$)	-0.228 ($<.001$)	1	-0.098 ($<.001$)	0.096 ($<.001$)	-0.014 (0.504)	-0.031 (0.139)	-0.010 (0.644)	0.028 (0.189)	0.056 (0.008)	-0.005 (0.808)	-0.185 ($<.001$)
BSIZE	0.053 (0.012)	-0.027 (0.620)	0.058 (0.289)	0.011 (0.607)	-0.053 (0.012)	-0.120 ($<.001$)	-0.065 (0.002)	1	0.044 (0.035)	-0.041 (0.052)	-0.058 (0.006)	0.041 (0.054)	0.191 ($<.001$)	-0.117 ($<.001$)	0.413 ($<.001$)	-0.117 (0.031)
INST	0.210 ($<.001$)	0.013 (0.816)	-0.027 (0.626)	0.241 ($<.001$)	-0.082 ($<.001$)	-0.301 ($<.001$)	0.078 ($<.001$)	0.036 (0.085)	1	-0.078 ($<.001$)	-0.146 ($<.001$)	-0.112 ($<.001$)	0.236 ($<.001$)	-0.023 (0.284)	0.299 ($<.001$)	-0.030 (0.584)
BAD1	-0.094 ($<.001$)	0.015 (0.785)	-0.001 (0.988)	0.045 (0.034)	0.060 (0.004)	0.046 (0.028)	-0.011 (0.618)	-0.044 (0.038)	-0.064 (0.002)	1	0.056 (0.008)	0.111 ($<.001$)	-0.174 ($<.001$)	-0.092 ($<.001$)	-0.189 ($<.001$)	0.086 (0.117)
BAD2	-0.732 ($<.001$)	0.034 (0.538)	-0.236 ($<.001$)	-0.086 ($<.001$)	-0.052 (0.013)	-0.001 (0.949)	-0.030 (0.161)	-0.075 ($<.001$)	-0.152 ($<.001$)	0.056 (0.008)	1	0.036 (0.087)	-0.096 ($<.001$)	0.025 (0.241)	-0.069 (0.001)	-0.046 (0.405)
DISP	-0.215 ($<.001$)	-0.044 (0.425)	0.089 (0.104)	-0.020 (0.341)	0.045 (0.032)	0.056 (0.008)	0.026 (0.218)	-0.028 (0.190)	-0.214 ($<.001$)	0.269 ($<.001$)	0.121 ($<.001$)	1	-0.086 ($<.001$)	-0.042 (0.045)	-0.167 ($<.001$)	0.069 (0.205)
FOL-LOW	0.190 ($<.001$)	-0.016 (0.776)	0.014 (0.797)	0.023 (0.282)	-0.062 (0.003)	-0.166 ($<.001$)	0.004 (0.836)	0.214 ($<.001$)	0.286 ($<.001$)	-0.188 ($<.001$)	-0.123 ($<.001$)	-0.269 ($<.001$)	1	0.057 (0.007)	0.657 ($<.001$)	0.052 (0.337)
HIGH TECH	-0.019 ($<.001$)	-0.105 (0.054)	0.034 (0.537)	-0.070 (0.001)	-0.078 ($<.001$)	-0.045 (0.033)	0.062 (0.003)	-0.105 ($<.001$)	-0.013 (0.531)	-0.092 ($<.001$)	0.025 (0.241)	-0.025 (0.245)	0.040 (0.058)	1	-0.004 (0.860)	-0.014 (0.793)
lnSIZE	0.160 ($<.001$)	0.051 (0.349)	-0.056 (0.308)	0.069 (0.001)	-0.122 ($<.001$)	-0.273 ($<.001$)	-0.012 (0.563)	0.417 ($<.001$)	0.288 ($<.001$)	-0.189 ($<.001$)	-0.085 ($<.001$)	-0.395 ($<.001$)	0.652 ($<.001$)	0.006 (0.781)	1	-0.037 (0.494)
MGR-HOR	1	-0.013 (0.814)	0.302 ($<.001$)	-0.074 (0.174)	-0.011 (0.840)	0.046 (0.397)	-0.133 (0.015)	-0.118 (0.031)	-0.067 (0.222)	0.080 (0.144)	-0.038 (0.485)	0.008 (0.879)	0.011 (0.841)	0.002 (0.969)	-0.043 (0.426)	1

This table indicates correlations coefficients above p-values of correlations. The sample represents 2,247 firm-years (372 unique firms). All other variables defined in Table 1.

Table 3: The effect of insider voting and cash flow rights on the issuance of Management Earnings Forecasts

	Column A		Column B	
	Coeff. est.	χ^2 value	Coeff. est.	χ^2 value
WEDGE	0.796	1.59		
VR			0.792	1.51
CFR			-0.515	0.38
<i>Controls</i>				
PCTIND	-0.302	0.11	-0.261	0.09
BSIZE	-0.067	0.82	-0.067	0.82
INST	2.425	12.21 ***	2.493	14.04 ***
BAD1	-0.333	2.96 *	-0.330	2.91 *
DISP	-18.84	0.94	-18.80	0.94
FOLLOW	0.058	3.875 **	0.057	3.709 *
HIGHTECH	-0.571	0.772	-0.552	0.711
lnSIZE	-0.008	0.00	-0.002	0.00
Likelihood Ratio		734.058 ***		734.157 ***
Pseudo R ²		0.488		0.489
N		2,247		2,247

The dependent variable is the dichotomous variable FORECAST, which takes a value of 1 for firm-year observations with annual management earnings forecast; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 1. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 4: The effect of insider voting and cash flow rights on the issuance of Management Point Forecasts of Earnings

	Column A		Column B	
	Coeff. est.	χ^2 value	Coeff. est.	χ^2 value
WEDGE	0.230	0.02		
VR			0.310	0.04
CFR			-0.018	0.00
<i>Controls</i>				
PCTIND	6.010	3.31 *	6.097	3.14 *
BSIZE	-0.038	0.03	-0.040	0.04
INST	-0.559	0.138	-0.503	0.13
BAD2	0.446	0.768	0.444	0.76
DISP	-10.97	1.16	-11.014	1.17
FOLLOW	-0.102	1.79	-0.104	2.12
HIGHTECH	-7.654	37.48 ***	-7.59	34.80 ***
lnSIZE	0.577	1.51	0.599	1.97
Likelihood Ratio		94.389 ***		94.453 ***
Pseudo R ²		0.449		0.449
N		337		337

The dependent variable is the dichotomous variable POINT, which takes a value of 1 for firm-year observations with annual management earnings forecasts of a single earnings value; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 1. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 5: The effect of insider voting and cash flow rights on the Absolute Error of Management Earnings Forecasts

	Column A		Column B	
	Coeff. est.	t-value	Coeff. est.	t-value
WEDGE	-0.011	-0.03		
VR			-0.011	-0.03
CFR			-0.086	-0.13
<i>Controls</i>				
PCTIND	0.283	0.48	0.279	0.47
BSIZE	0.038	0.76	0.039	0.81
INST	-0.440	-0.82	-0.454	-0.82
BAD2	-0.236	-1.79 *	-0.236	-1.79 *
DISP	-12.121	-3.84 ***	-12.154	-3.88 ***
FOLLOW	0.022	1.27	0.023	1.25
HIGHTECH	-0.191	-0.86	-0.198	-0.84
lnSIZE	-0.230	-2.01 **	-0.236	-2.08 **
MGRHOR	0.002	1.45	0.002	1.44
Model F Statistic		26.48 ***		27.47 ***
Adjusted R ²		0.078		0.075
N		337		337

The dependent variable is AbsMFE, the absolute value of management forecast error; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 1. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 6: The effect of insider voting and cash flow rights on the Signed Error of Management Earnings Forecasts

	Column A		Column B	
	Coeff. est.	t-value	Coeff. est.	t-value
WEDGE	-0.039	-0.10		
VR			-0.047	-0.12
CFR			-0.085	-0.13
<i>Controls</i>				
PCTIND	0.153	0.26	0.145	0.24
BSIZE	0.040	0.84	0.042	0.90
INST	-0.346	-0.65	-0.365	-0.66
BAD2	-0.353	-2.61	-0.354	-2.61
DISP	-11.619	-3.84	-11.662	-3.87
FOLLOW	0.024	1.38	0.025	1.35
HIGHTECH	-0.300	-1.15	-0.312	-1.12
lnSIZE	-0.233	-2.03	-0.242	-2.05
MGRHOR	0.001	1.10	0.002	1.09
Model F Statistic		18.17		15.85
Adjusted R ²		0.079		0.076
N		337		337

The dependent variable is MFE, the signed management forecast error; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 1. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 7: Fixed Effects -- the effect of insider voting and cash flow rights on the Absolute Error of Management Earnings Forecasts

	Column A		Column B		
	Coeff. est.	t-value	Coeff. est.	t-value	
WEDGE	1.279	0.73			
VR			1.241	0.71	
CFR			-3.074	-1.32	
<i>Controls</i>					
PCTIND	0.721	0.78	0.712	0.77	
BSIZE	0.034	0.43	0.019	0.24	
INST	-0.907	-1.40	-0.941	-1.45	
BAD2	-0.140	-0.89	-0.146	-0.93	
DISP	-12.175	-3.84	-12.658	-2.13	***
FOLLOW	-0.011	-0.37	-0.012	-0.038	
LnSIZE	-0.622	-3.31	-0.690	-3.51	***
MGRHOR	0.002	2.13	0.002	2.06	**
F-test for No Fixed Effects		0.68		0.70	
R ²		0.375		0.379	
N		319		319	

The dependent variable is AbsMFE, the absolute value of management forecast error; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 1. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 8: Fixed Effects -- the effect of insider voting and cash flow rights on the Signed Error of Management Earnings Forecasts

	Column A		Column B	
	Coeff. est.	t-value	Coeff. est.	t-value
WEDGE	1.354	0.76		
VR			1.315	0.74
CFR			-3.350	-1.42
<i>Controls</i>				
PCTIND	0.567	0.60	0.558	0.59
BSIZE	0.046	0.58	0.030	0.38
INST	-0.809	-1.22	-0.848	-1.28
BAD2	-0.226	-1.40	-0.233	-1.45
DISP	-11.631	-1.92 *	-12.167	-2.01 **
FOLLOW	-0.003	-0.08	-0.003	-0.09
lnSIZE	-0.680	-3.55 ***	-0.755	-3.77 ***
MGRHOR	0.002	1.70 *	0.002	1.62
F-test for No Fixed Effects		0.66		0.69
R ²		0.372		0.377
N		319		319

The dependent variable is MFE, the signed management forecast error; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 1. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

CHAPTER 4 – Essay II

4.1 Literature Review

4.1.1 Annual Report Disclosure Quality

Many disclosure studies focus on the content of annual reports. For instance, Singhvi and Desai (1971) use an index of 31 items from an earlier study (Fremgen, 1963) such as comparative financial and operating data and labor costs and contract terms. The authors conclude that smaller firms, and those free from listing requirements, provide worse disclosure. Several other papers over the following decades have confirmed these initial findings (e.g., Buzby, 1974; Buzby, 1975; Firth, 1979; Cooke, 1989; Wallace et al., 1994). Other research has examined the influence of debt (e.g. Malone et al., 1993; Wallace and Naser, 1996), profitability (e.g., Singhvi and Desai, 1971; McNally et al., 1982), and auditors (e.g., Singhvi and Desai, 1971; Malone, 1993; Patton and Zelenka, 1997) on disclosure quality. It is interesting to note that the dependent variable in all of the above studies is a researcher-created index. Other studies (e.g., Imhoff Jr., 1992; Lang and Lundholm, 1993) use analyst opinions of disclosure quality. However, a latent criticism of each of these approaches is the inherent subjectivity of the measure of disclosure quality.²⁴ Two disclosure attributes that can be objectively determined, and are simple to implement with the aid of computer programs, are the readability and tone of a narrative piece.²⁵

²⁴ See Ahmed and Courtis (1999) for a meta-analysis of many of these studies.

²⁵ Li (2010a) provides a literature review of the recent accounting literature examining readability and tone.

4.1.2 Readability

Readability has long been acknowledged as a desirable trait of financial reporting. In contrast to the content-based studies above, readability is a characteristic that can be objectively obtained. In fact, the syntactic complexity of annual financial reports was among one of the first applications of the Flesch Reading Ease Score (Pashalian and Chrissy, 1950) and has been a topic of considerable accounting research for decades.^{26,27}

Soper and Dolphin (1964) replicate Pashalian and Chrissy (1950) and note that financial report readability significantly declined between 1948 and 1961. Soper and Dolphin (1964) provide early evidence suggesting the Flesch Reading Ease Score is valid for accounting reports – the perceived ease of comprehension judged by subjects broadly agrees with the difficulty level suggested by the scale. Smith and Smith (1971), also using the Flesch Reading Ease Score, find that most annual reports have readability scores corresponding to college-level educational attainment and that there is not a relationship between specific auditors and reading ease. Hoskins (1984) and Heath and Phelps (1984) note that the average readability of annual reports is difficult, with the latter study observing that the readability level is more difficult than eight of nine business news publications evaluated. Comparing the readability of various written components of a corporation's annual report using the Flesch-Kincaid Index and similar measures, Schroeder and Gibson (1990) find that MD&A are more difficult to read than President's Letters, and are approximately on par with the footnotes.

²⁶ See Hotchkiss and Paterson (1950) for a thorough reference list and summary of early (pre-1950) business research using the Flesch Reading Ease Score.

²⁷ The revised Flesch Reading Ease Score (Flesch, 1948) uses word and syllable counts, along with measures of sentence length and pronouns and proper nouns, to mechanically compute the reading difficulty level for a section of text. Other common measures of difficulty used in this study include the contemporaneously, yet independently, developed Fog Index (see Gunning [1969] for a history of the development) and the SMOG readability formula (McLaughlin, 1969). The main measure of readability used in this paper is the Fog Index. Computation of each readability measure is described further in the methodology section.

Beginning in the 1980s, accounting researchers began to move beyond merely describing readability to drawing links between readability and firm and market characteristics. While early studies did not find a link between readability and market reactions (Means, 1981) or readability and profitability or risk (Courtis, 1986), later research discerns a number of relationships between readability and firm and market characteristics. Smith and Taffler (1992) and Subramanian et al. (1993) find that better performing firms produce more readable chairmen's statements and annual reports, respectively. Similar results regarding performance are obtained by Li (2008). He also finds that firms with more readable annual reports are associated with more persistent positive earnings. Firms with greater litigation risk have been found to have less readable MD&A (Blouin, 2010).

Lehavy et al. (2011) study the impact of annual report (SEC form 10-K) readability on analysts.²⁸ In addition to finding that increased complexity is associated with a larger analyst following, greater individual analyst effort, and more pronounced market reaction to analyst reports, the authors show complexity is associated with lower forecast accuracy and higher forecast dispersion for firms with less readable 10-K filings. Lee (2012) finds that there is less of a three-day window market reaction around the 10-Q filing for firms with unexpectedly longer and less readable quarterly reports relative to reactions for firms with shorter and more readable filings. Further, lower readability also results in a greater post-earnings announcement drift for up for sixty days after filing. Thus, the market has a more difficult time quickly pricing the information contained in less readable filings; equity markets are less efficient at incorporating news from firms with less readable documents. Similarly, Callen et al. (2013) find a longer price delay for annual reports with higher Fog Indices. Loughran and McDonald (2014a) find that

²⁸ Annual reports have been shown to be an important source of information for financial analysts (e.g. Previt et al., 1994)

improved readability is associated with increased small investor trading, the likelihood of seasoned equity issuance, and better corporate governance.²⁹ Overall, readability positively impacts the market's ability to interpret information, and aids small investors in capital allocation decisions. Readability also appears to be a product of better corporate governance and a need to access capital markets.

4.1.3 Tone

In one of the first studies of its kind, Frazier et al. (1984) utilize the narrative-content analysis method developed by Ingram and Frazier (1983) to identify important themes in MD&A. While not explicitly measuring positivity (optimism), the authors split their sample by positive and negative performance, and note incidences of such themes as “Tax effect of segment losses” and “Environmental improvements.” The authors, however, do not find much evidence of management attempting to change the perception of performance. In a later study, Tennyson et al. (1990) examine the thematic contents of MD&A and President's Letters and do find significant predictive associations between types of themes discussed and subsequent bankruptcy.

The optimism or pessimism of business media contains important information as well. For example, using large-scale content analysis methods, Kothari et al. (2009) find that both positive and negative news in the business press can impact a firm's cost of capital, and that the strength of this relationship is stronger than that between the cost of capital and disclosures made by analysts or companies. Tetlock (2007) examines the linkage between pessimism in the financial

²⁹ Taking a broader view of disclosure quality and a wider range of sources (reports by management, analysts, and the business press), Kothari et al. (2009) find that when content disclosures are favorable, cost of capital, stock return volatility, and analyst forecast dispersion all decrease. Negative disclosures by the business press are associated with a higher cost of capital and return volatility.

press and stock prices. Excessive pessimism is found to predict temporarily lower prices, but is not a source of new information as prices recover to fundamental values with time. Tetlock et al. (2008) find results consistent with those in Tetlock (2007) and that negative words in news stories are associated with lower future earnings.

Abrahamson and Amir (1996) first assess the positivity and negativity of corporate narratives. Examining President's Letters, the authors conclude that the tonal information contained therein is positively associated with financial performance; this result contrasts with an alternative theory of management using tone to dampen the impact of bad financial results or smooth good performance. Further, the authors find evidence that narratives are useful to investors: the earnings-return relation is stronger when both the information in President's Letters and financial results are considered. Using methodology similar to that of Tetlock (2007) and Tetlock et al. (2008), Feldman et al. (2008) find that the tone change (positive or negative) in MD&A also has information value to markets. This information value is in excess of that contained in accruals, cash flow, and earnings surprises, and results in both short- and long-window price movements. The amount of incremental information conveyed by tone is greater for firms with weaker information environments, defined as a smaller firm size and lower analyst following. The authors conclude that trading based on tone may generate significant excess returns. Demers and Vega (2011) find that linguistic tone has a greater impact on prices when so-called "hard" (i.e., numerically-based) information is noisier and when the narrative disclosures themselves are deemed more credible. Tone of MD&A, measured using a unique Naïve Bayesian machine learning algorithm, is associated with future accounting returns, controlling for other factors that may influence performance, and even seems to mitigate accrual mispricing (Li, 2010b). Davis et al. (2012) examine another source of company-provided information: earnings press releases.

The authors document that optimistic language is positively associated with future ROA and impacts market prices, concluding that the language of earnings press releases communicates credible information to markets. Davis and Tama-Sweet (2012) also find that pessimistic language in MD&A is associated with lower future ROA, even after controlling for the language in the associated earnings press release.

Recently, optimism and pessimism have also been linked to the manipulation of financial reports, in contrast to the implications of Abrahamson and Amir (1996). Examining earnings press releases and MD&A, Davis and Tama-Sweet (2012) find that managers facing greater pressure to meet earnings targets may alter the language of reports. Specifically, firms that just meet or beat analysts' earnings targets (an indicator of potential earnings management) are found to use less pessimistic language. The authors also find limited evidence that that these firms use more optimistic language in earnings press releases. However, firms with unusually optimistic earnings announcements are also more likely to be subject to shareholder litigation (Rogers et al., 2011). In summary, the tone of written documents regarding companies, produced either externally in the press or internally in the form of press releases and SEC filings, has information value for markets: there is a positive association between tone and future returns. The tone of written narratives can also sometimes be used as a substitute for other more traditional forms of disclosure. Additionally, tone is predictive of future firm performance, and there is evidence to suggest that tone can be manipulated by management to achieve specific ends.

4.2 Hypothesis Development

Recently, accounting studies have begun to explore the determinants of more or less readable annual reports. Li (2008) and Blouin (2010) examine a range of potential determinants of readability as measured by the Fog Index. Interestingly, Blouin (2010) finds higher litigation risk is associated with MD&A that are more difficult to read. This finding is important in that it indicates management may be able to influence the readability of SEC filings based on external pressure from the markets or litigants.

The greater the amount of cash flow accruing to management, the more likely they are to run their firms with firm value maximization as the primary goal; this is in congruence with the objectives of outside investors. Existing research demonstrates that it is easier for investors and other market participants to understand and act on more readable filings (Lehavy et al., 2011; Lee, 2012; Callen et al., 2013; Loughran and McDonald, 2014a). As a result, insiders are more likely to be motivated to provide the information desired by market participants and exert explicit effort to ensure that the documents produced by their firms are clear and readable for the intended users as their stake in firm cash flow increases. I thus predict as insiders' cash flow rights increase, readability of the MD&A is likely to increase.

The effect of insiders' voting rights and the wedge between insiders' voting rights and cash flow rights is less certain. Chen (2008) and Nguyen and Xu (2010) find that as managers' voting rights increase relative to their cash flow rights, they become more insulated from market pressures. For example, if managers effectively control the company, they need not fear losing their jobs if they miss Wall Street's earnings expectations. Furthermore, firms with a large separation between inside voting and inside cash flow rights tend to be less reliant on the market for funding (Arugaslan et al., 2010). In this case, management may report in such a way that

external annual report readers are not given first priority when documents are filed with the SEC. In effect, managers may choose to supply less readable documents due to a lack of incentives to provide those that are more readable. Thus management may comply with the letter of the law for developing MD&A, but not feel the pressure to ensure they are easy to read or especially informative. This would be consistent with the findings of Fan and Wong (2002) and Francis et al. (2005) who find that earnings become less informative as the separation between inside voting rights and cash flow rights increases. These papers attribute this lack of informativeness to a desire to report out of self-interest and conceal proprietary information. Self-interest and private information arguments would also suggest lower levels of readability as managerial voting rights diverge from cash flow rights. In total then, entrenched management resulting from the wedge may be expected to lead to lower readability both due to a lack of attention paid to the clarity of written output (resulting from the insulation of management from market pressure) and/or an intentional effort to hide private benefits of control and proprietary information (resulting from Fan and Wong's [2002] entrenchment and information arguments) through the use of less readable language.

On the other hand however, increased managerial voting rights relative to cash flow rights may lead to *more* readable financial statements. One reason this could be the case is that clear and comprehensible communication may aid as a monitoring function of management in situations of high insider control. Similar to the "bonding" argument put forth by Dey et al. (2012), management may partially offset the inherent agency problems associated with high voting rights relative to cash flow by committing to disclosing information in such a way as to minimize investor confusion or even the appearance of hiding behind abstruse language.

Investors may be less averse to putting their money in a firm over which they will not have much control if they at least feel well-informed about its operations and performance.

Evidence for this supposition exists anecdotally in the form of comments made by the controlling shareholder of the dual class firm Berkshire Hathaway, Warren Buffett. A strong advocate of transparent communication by management, Buffett was consulted in the preparation of the SEC's "A Plain English Handbook" and was even invited to pen the preface of the document. Buffett himself posits that in some cases, a "less-than-scrupulous issuer doesn't want [investors] to understand a subject it feels legally obligated to touch upon" (SEC, 1). Bonded insiders may use plain language to ensure that investors understand all subjects that are mentioned in disclosures. Furthermore, if Buffett's desire for readable financial statements is at all a common characteristic of owners of firms with large voting power relative to cash flow, managers at firms with large wedges may inherently want to produce clear and readable documents.

As a result of the two opposing possibilities, I do not predict ex ante the effect of the wedge or voting rights on the readability of MD&A. Insulation from the concerns of investors may result in a negative association between the wedge and readability, while a bonding situation may result in a positive association between the wedge and readability. My hypothesis regarding insiders' voting rights is similarly non-directional.

Formally, I thus hypothesize in alternate form:

H4a: MD&A readability is associated with the wedge between insiders' voting and cash flow rights.

H4b: MD&A readability is associated with insiders' voting rights.

H4c: MD&A readability is positively associated with insiders' cash flow rights.

I also leverage the findings of Chen (2008) and Nguyen and Xu (2010) to predict the effect of insiders' voting rights and cash flow rights on tone. Davis and Tama-Sweet (2012) find that managers with greater strategic reporting incentives use less pessimistic language. Specifically, they find that firms that meet or just beat analysts' forecasts use less pessimistic language, and provide some evidence that firms increase their use of optimistic language in this situation. Meeting or just beating analysts' forecast is a common indicator of earnings management in the accounting literature (e.g., Dechow et al., 2010). The implication is that managers who are manipulating analyst expectations are manipulating the textual portion as well; the two can be viewed as different aspects of earnings management.

As previously discussed above, Chen (2008) and Nguyen and Xu (2010) find less earnings management as the wedge between insiders' voting rights and cash flow rights grows. It accordingly follows that the amount of verbal "earnings management" would be lower for these firms; the tone of the MD&A is thus more likely to paint a more accurate picture of the economic situation of the firm. As insiders' voting rights diverge from their cash flow rights, management is less likely to use unnecessarily optimistic language or avoid using pessimistic language when describing results and the state of the firm. This assumes a natural tendency on the part of

management to use tone to put a positive spin on results, but this seems reasonable given the findings of Davis and Tama-Sweet (2012). Thus, greater inside voting rights may be associated with more realistic language. The greater is managers' share of total cash flow on the other hand, the more likely they are to be sensitive to the expectations of other market participants and may be more prone to using language to manipulate those participants' perceptions of firm performance.

However, it may also be the case that the management of firms with a high degree of divergence between inside voting rights and cash flow rights would be *more* likely to use optimistic language. This could be caused by the psychological effects of motivated reasoning. In this context motivated reasoning is defined as a wish, desire, or preference to arrive at a particular, directional conclusion (Kunda, 1990). Despite early controversy, literature in psychology has established that outcome preferences can bias judgments and decision making (Kunda, 1990). Research in accounting and finance has shown that motivated reasoning extends to investment positions as well (Hales, 2007; Ko and Hansch, 2009; Seybert and Bloomfield, 2009; Han and Tan, 2010; Thayer, 2011; Hales et al., 2011). As insiders' typically already-large holdings increase in the wedge, a greater wedge may be associated with increased motivated reasoning regarding the performance of the firm.

Given the relationship between insiders and the firm at the typical dual class firm, the impact of motivated reasoning may be stronger at these firms than in others where insiders are simply majority owners. Many dual class firms were either founded by the insiders or their families. In contrast with the handful of years that the average American chief executive stays at his or her post, ownership and control of dual class firms often spans decades and generations. As such, this deep and personal connection with the firms may quite often cause them to be viewed as

extensions of the insiders' family or of the insiders themselves. Similar to how parents tend to be more optimistic about their own progeny's future relative to the average child (Lench et al., 2006) or optimistically biased even relative to their own prospects (e.g., Lench and Bench, 2012), owners of dual class firms may to some extent feel the same way about their companies. Indeed, as the difference between voting rights and cash flow rights grows, this feeling may be amplified; less pecuniary utility derived from firm ownership may be correlated with greater utility resulting from other aspects of firm ownership, and this in turn may further the perception of the firm as more of an extension of self and less of an impersonal economic entity. Thus I expect that higher cash flow rights would be associated with management viewing the firm more in financial terms and so optimism is likely to decrease in cash flow rights in this scenario. As the wedge increases therefore, management may (consciously or not) use more optimistic language when describing past, current, and expected firm-related events. Due to the conflicting nature of the two possible impacts of the wedge and its components on optimism, my hypotheses are non-directional.

Formally, I hypothesize:

H5a: MD&A net optimism is associated with the wedge between insider voting and cash flow rights.

H5b: MD&A net optimism is associated with insiders' voting rights.

H5c: MD&A net optimism is associated with insiders' cash flow rights.

4.3 Methodology

4.3.1 Readability

My primary method of measuring readability is through the Fog Index. Developed by Robert Gunning in 1952, the Fog Index considers the average number of words per sentence and the percent of those words deemed complex (three or more syllables) to establish a readability figure. The formula for the Fog Index is calculated as $\text{Fog} = [(\text{number of words}/\text{number of sentences}) + 100 * (\text{number of complex words}/\text{number of words})] * .4$. The calculated Fog Index is roughly equivalent to school grade levels in the United States, where a value of between 9 and 12 would be appropriate for an audience with a high school level of education, 13-16 with an undergraduate level of education, and 17+ for graduate or advanced levels of education. A Fog Index of greater than 14 has been deemed to be “socially inaccessible” (Parker, 1982). The appropriateness of the Fog Index has been vetted through its frequent utilization in accounting studies (e.g., Parker, 1982; Courtis, 1995; Blouin, 2010; Li, 2010; Leheavy et al., 2011; Laksmana et al., 2012; Callen et al., 2013).

In additional analyses, I use three other measures of readability. Two, the Flesch-Kincaid and the Smog indices, are also interpreted in terms of grade levels. The formula for the Flesch-Kincaid Index is: $\text{F-K Index} = (11.8 * \text{number of syllables}/\text{number of words}) + (0.39 * \text{number of words}/\text{number of sentences}) - 15.59$. The formula for the Smog Index is $\text{Smog Index} = 3 + \text{square root of the number of complex words}$, where the number of complex words is the number of words with three or more syllables in a random sample of 30 sentences in the document. The final calculated measure of readability I employ is the Flesch Reading Ease Score. The formula for the score is $\text{Flesch Reading Ease} = 206.835 - (1.015 * \text{number of words}/\text{number of}$

sentences) – (84.6 * number of syllables/number of words). High scores denote material that is easier to read, with scores below 50 ranking as difficult as below 30 as very difficult.

Li (2008) and Blouin (2010) provide the basis for developing a model of readability based on firm characteristics. I incorporate the controls from the models identified in these papers along with my independent variables of interest. To test H4a, I use OLS to model the following:

$$\begin{aligned}
 READ_{i,t} = & \delta_0 + \delta_1 WEDGE_{i,t} + \delta_2 SIZE_{i,t} + \delta_3 MTB_{i,t} + \delta_4 AGE_{i,t} + \delta_5 SI_{i,t} + \delta_6 RET_VOL_{i,t} + \\
 & \delta_7 EARN_VOL_{i,t} + \delta_8 \ln SEG_{i,t} + \delta_9 SEO_{i,t} + \delta_{10} DLW_{i,t} + \delta_{11} LITRISK_{i,t} + \sum \delta_{12} IND_{i,t} + \sum \delta_{13} YEAR_{i,t} + \\
 & v_{i,t}
 \end{aligned}
 \tag{4a}$$

Where, for firm i and year t :

$READ$ = readability measure;

$WEDGE$ = the difference between inside voting rights and inside cash flow rights. See section 2.3 for a discussion of this variable and details of computation;

$SIZE$ = natural log of assets;

MTB = market value of common equity divided by the book value of equity;

AGE = the number of years a firm has appeared in the CRSP database;

SI = amount of GAAP special items divided by assets;

RET_VOL = standard deviation of monthly stock returns over the previous 12 months;

$EARN_VOL$ = standard deviation of annual earnings over the prior five years;

SEG = the natural logarithm of the number of business and operating segments;

SEO = natural logarithm of the sale of common and preferred shares;

DLW = a dummy variable that takes a value of 1 if Compustat incorporation state is Delaware, and 0 otherwise;

$LITRISK$ = litigation risk, as modeled by Kim and Skinner (2012)³⁰:

$$LITRISK_{i,t} = -7.718 + 0.180HIGH_{i,t} + 0.463lnASSETS_{i,t-1} + 0.553SALES_GROWTH_{i,t-1} - 0.498ADJRET_{i,t} - 0.359RET_SKEW_{i,t} + 14.437RET_STD_{i,t} + 0.0000004TVOL_{i,t}$$

Where, for firm i :

$HIGH_{i,t}$ = a dummy variable that equals one if a firm is in a high litigation industry:

Biotech (SIC Codes 2833 – 2838 and 8731 – 8734), Computers (3570 – 3577 and 7370 – 7374), Electronics (3600 – 3674), and Retail (5200 – 5961);

$lnASSETS$ = natural log of assets at the end of year $t-1$;

$SALES_GROWTH$ = (year t sales – year $t-1$ sales) divided by year t sales;

$ADJRET$ = market-adjusted 12-month stock return for year t ;

RET_SKEW = skewness of the firm's 12-month return for year t ;

RET_STD = standard deviation of the firm's 12-month return for year t

$TVOL$ = 12 month share trading volume for year t .

³⁰ I use the litigation risk model from Kim and Skinner (2012) rather than the proxy used by Blouin (2010); it represents the sole focus of the Kim and Skinner (2012) paper. Notes on the litigation risk model from Kim and Skinner (2012): (1) I use the model and coefficients from Model 2 (p. 302) because this model has the highest Pseudo-R² of all possible models explored in the paper and (2) I include the industry dummies because, although they were not significant (p-value = 0.12), they are very close to being so and have been linked to litigation risk in prior studies.

Li (2008) defines a number of control variables to model readability of MD&A. First, size affects many aspects of a firm's reporting environment, and may result in more complex SEC reports. Similarly, more business or operating segments are likely to be associated with more complex reports. Market-to-book ratio may predict readability in that growth firms (with a higher ratio) may have more complex MD&A due to the unique circumstances faced in expansion. Age is included as a control because older firms could be expected to have annual reports that are simpler and more readable. A large amount of special items may indicate peculiar circumstances that result in a greater level of complexity. Special events, such as seasoned equity offerings, could result in less readable MD&A. High return or income volatility may indicate the presence of events that require more complex language to convey. Firms incorporated in the state of Delaware are also shown to have less readable MD&A (Li, 2008). Finally, Blouin (2010) finds complexity is higher for firms with greater litigation risk. I do not predict a sign of the coefficient on *WEDGE* as H4a is stated in non-directional form.

To test H4b-c, I use OLS to model the following:

$$\begin{aligned}
 READ_{i,t} = & \delta_0 + \delta_1 VR_{i,t} + \delta_2 CFR_{i,t} + \delta_3 SIZE_{i,t} + \delta_4 MTB_{i,t} + \delta_5 AGE_{i,t} + \delta_6 SI_{i,t} + \delta_7 RET_VOL_{i,t} + \\
 & \delta_8 EARN_VOL_{i,t} + \delta_9 SEG_{i,t} + \delta_{10} SEO_{i,t} + \delta_{11} DLW_{i,t} + \delta_{12} LITRISK_{i,t} + \sum \delta_{13} IND_{i,t} + \sum \delta_{14} YEAR_{i,t} + \\
 & V_{i,t}
 \end{aligned}
 \tag{4b}$$

Where, for firm i and year t :

VR = insiders' voting rights. See section 2.3 for a discussion of this variable and exact computation;

CFR = insiders' cash flow rights. See section 2.3 for a discussion of this variable and exact computation.

In accordance with the non-directional form of H4b, I do not predict the sign of the coefficient on VR . I predict a negative coefficient on CFR .

4.3.2 Tone

To test H5a, I use OLS to estimate a model similar to that used by Davis and Sweet (2012). However, because Davis and Sweet (2012) examine earnings press releases in addition to MD&A, I exclude variables that specifically relate to press releases and not MD&A. Additionally, I exclude variables that relate to specific quarters as I use only MD&A appearing in firms' annual reports, as well as variables are that not significant across all model specifications.³¹

$$NET_OPT = \delta_0 + \delta_1 WEDGE_{i,t} + \delta_2 ROA_{i,t} + \delta_3 FUT_ROA_{i,t} + \delta_4 \ln SALES_{i,t} + \delta_5 LOSS_{i,t} + \delta_6 LEV_{i,t} + \delta_7 BEAT_{i,t} + \delta_8 SURP_{i,t} + \delta_9 WC_{i,t} + \delta_{10} PCTIND_{i,t} + \sum \delta_{11} IND_{i,j} + \sum \delta_{12} YEAR_{i,t} + v_{i,t}$$

(5a)

³¹ Examples of the latter include accruals and a special items indicator variable.

$$\begin{aligned}
NET_OPT = & \delta_0 + \delta_1 VR_{i,t} + \delta_2 CFR_{i,t} + \delta_3 ROA_{i,t} + \delta_4 FUT_ROA_{i,t} + \delta_5 \ln SALES_{i,t} + \delta_6 LOSS_{i,t} + \\
& \delta_7 LEV_{i,t} + \delta_8 BEAT_{i,t} + \delta_8 SURP_{i,t} + \delta_{10} WC_{i,t} + \delta_{11} PCTIND_{i,t} + \sum \delta_{12} IND_{i,j} + \sum \delta_{13} YEAR_{i,t} + v_{i,t}
\end{aligned}
\tag{5b}$$

Where, for firm i and year t , the variables not previously defined are:

NET_OPT = average number of words per 500 word sample in the MD&A for year t that are classified as optimistic using the word list developed by Loughran and McDonald (2011) less the average number of words per 500 word sample in the MD&A for year t that are classified as pessimistic using the word list developed by Loughran and McDonald (2011);

ROA = income before extraordinary items for year t scaled by assets at $t-1$;

FUT_ROA = ROA for year $t + 1$;

$\ln SALES$ = natural log of sales in year t ;

$LOSS$ = a dummy variable that equals 1 if $ROA < 0$ in year t , 0 otherwise;

LEV = leverage ratio, measured as long term debt to total assets in year t ;

$BEAT$ = a dummy variable that equals 1 if the firm just beat or met the mean consensus analyst forecast for year t ;

$SURP$ = year t actual earnings – mean consensus forecast three months prior to fiscal year end scaled by stock price;

WC = a word count of the number of words in the year t MD&A;

$PCTIND$ = percentage of independent directors on the board.

Consistent with H5a, I refrain from predicting the sign of the coefficient on *WEDGE* to be negative, as I similarly do for coefficients on VR and CFR when testing H5b-c. Davis and Tama-Sweet (2012) find current and future performance is positively associated with optimism while leverage, losses, and risk disclosures are negatively related to optimism. Earnings surprises and risk disclosures are negatively associated with pessimism. *BEAT* is an important control as Davis and Tama-Sweet (2012) find firms that just meet or beat analysts' forecasts tend to use less pessimistic and more optimistic language.

4.4 Data Sources and Sample Selection

This essay also shares its dual class sample with Forst et al. (2014) and covers the period 2008 - 2012. This data set consists of dual class firms identified by a difference between the number of shares outstanding as reported by Compustat and CRSP,³² firms in CRSP with more than one class of traded shares, dual class firms from the Gompers et al. (2010) sample, and firms explicitly identified as dual class by Thomson's SDC Global New Issues database³³ and RiskMetrics. All potential candidate firm-years (aside from those eliminated due to foreign incorporation status or financial firms, identified with an SIC code between 6000 and 6999) are then researched on the SEC's EDGAR system.

Final dual class status determination, voting and cash flow rights per class, and inside ownership and cash flow data are obtained from proxy statements and 10-Ks on EDGAR. Per previous research and the SEC's own reporting standards, inside ownership is defined as not only stock owned by officers and directors, but also shares owned by their family members, or

³² CRSP reports shares outstanding for a given stock issue, while Compustat contains shares for all classes of common stock. A difference may indicate multiple classes of common shares.

³³ With corrections by Jay Ritter. See <http://bear.warrington.ufl.edu/ritter/dual-class-ipo.htm>.

trusts for the benefit of family members, as well as shares owned by parent or subsidiary corporations with board representation. Shares are counted as being owned by insiders even if ownership is disclaimed for reporting purposes. Further, only shares owned, and not rights to shares (such as options and stock units) are included in the measure of insider ownership. In addition, other corporate governance data such as CEO-Chairman identity, board size, and number of independent directors are collected from the same documents. In all, data is collected for 1,099 firm-years representing 271 dual class firms during the sample period.

The main independent variables of interest in this essay are the wedge between inside voting and cash flow rights, and those terms modelled separately. As in Forst et al. (2014), inside voting rights are a function of the number of shares owned of each class and the votes per share for the election of directors of each class of stock, as well as any further disproportionate board election rights associated with each class of stock. Calculating voting power this way provides a measure of the influence insiders have in electing the board of directors. Inside cash flow rights are computed from dividend rights per class of stock.

Firm accounting data comes from Compustat, return information from CRSP, and analyst variables from the Institutional Brokers' Estimate System (I/B/E/S). Institutional ownership is obtained from Thomson Reuters, while governance characteristics are hand collected from proxy statements (SEC Form DEF-14A) and 10-Ks. MD&A from firms' 10-K annual reports are accessed via the SEC's EDGAR website. After matching with necessary data sources, the sample size to test my fourth set of hypotheses is 1,042 firm-years (257 firms) while that to test my fifth is 732 (208 firms).

4.5 Descriptive Statistics

[Insert Table 9 about here]

Descriptive statistics of my dependent variables, independent variables of interest, and controls are presented in Table 9. The values of my first outcome variable of interest, the Fog Index, are comparable to the Fog Index measured in other recent work examining 10-Ks (e.g. Lehavy et al., 2011) with a mean of 18.011. Concerning my second, the negative mean value of *NET_OPT* (-3.869) indicates on average there is more negative language used than positive based on Loughran and McDonald's (2011) dictionaries. That my sample period encompasses the financial crisis and subsequent slow recovery may account for this. Turning to my independent variables of interest, on average insiders of my sample firms control nearly 57% of board election rights, while commanding only 27% of the cash flow, leading to an average *WEDGE* value of 0.299. These figures are comparable to prior work with this sample (e.g. Forst et al., 2014). Control variables indicate that the firms in my sample are fairly large, with on average approximately \$6 billion of assets (and a mean natural log of total assets value of 6.794), middle-aged (mean age of 24.3 years), and typically incorporated in Delaware (63%). The ROA of sample firms is also negative on average (-7.8%), likely due to the recession during the sample period, and likewise over 32% of observations involve losses. Boards are usually two-thirds independent. Finally, the median length of the MD&A section is long at 9,657 words.

[Insert Table 10 about here]

A review of the correlations in Table 10 reveals that they are low among the control variables in Model 4. The table also indicates that the correlations are large and highly significant among the four measures of readability considered in this study. This is intuitive as the measures are constructed in a similar fashion. Specifically, the Pearson correlations between the Fog Index, Flesch-Kincaid Score, and Smog Index are all positive and at least 0.763 (significant at the 1% level). The correlations between these three and the Flesch Reading Ease Score is negative and strongly significant due to the fact that this measure is constructed with greater reading ease indicated with a higher score. Of the independent variables of interest, there is a positive correlation between *VR* and *CFR* as both voting rights and cash flow rights increase with greater ownership. Finally, there exists initial univariate support for H4a and H4b with a significant and negative Pearson correlation between *FOG* and *WEDGE* (Correlation coefficient = -0.093, p-value = 0.002) and *VR* and *WEDGE* (Correlation coefficient = -0.058, p-value = 0.055).

[Insert Table 11 about here]

A review of the correlations in Table 11 also reveals that they are low among the control variables in Model 5. The table also indicates that the alternative measures of optimism, *NET_OPT* and *OPT* (a measure of optimism built in to DICTION 7), are moderately correlated with a coefficient of 0.343 (significant at the 1% level). Finally, there exists initial univariate support for H5c with a significant and negative correlation between *NET_OPT* and *CFR* (Correlation coefficient = -0.054, p-value = 0.074). There are also significant correlations between *OPT* and *WEDGE* (Correlation coefficient = 0.071, p-value = 0.018) and *OPT* and *CFR* (Correlation coefficient = -0.059, p-value = 0.050).

4.6 Results of Hypotheses Tests

4.6.1 Primary Hypotheses Tests

H4a-c and H5a-c are tested using Ordinary Least Squares and clustering standard errors at the firm level. Controls for industry (Fama and French, 1997) and year effects are also included. Column A in Table 12 presents results for H4a concerning the association between the wedge and readability as measured by the Fog Index. The coefficient on *WEDGE* is negative and significant (coefficient = -0.674, p-value = 0.055). A greater separation between inside voting and cash flow rights is therefore associated with a more readable MD&A and H4a is supported. Of the control variables, results suggest that larger firms have more complex (less readable) filings as do firms with greater return volatility and firms issuing shares, as expected. Older firms also tend to have less complex filings.

Results for the tests of H4b and H4c are shown in Column B of the same table. Of my two variables of interest, only *VR* is significant (coefficient estimate = -0.634, p-value = 0.065). The negative coefficient again implies that greater insider voting rights are associated with more readable filings. Unexpectedly, the coefficient on *CFR* is positive, however it is not significant at conventional levels (coefficient estimate = 0.726, p-value = 0.180). I thus find evidence for H4b but fail to reject the null for H4c. Results for the control variables in Column B are nearly identical to those in Column A. Collectively, these findings are consistent with the monitoring argument which predicts as insiders accrue more power over the firm they take steps to ensure that management's analysis and discussion is more clear and readable.

[Insert Table 12 about here]

As an additional test of H4a-c, I replace the dependent variable of Models 4a and 4b with the Flesch-Kincaid Readability Score (see Table 13). Results for my variables of interest are similar and actually slightly stronger. The coefficients on *WEDGE* and *VR* remain negative (-0.698 and -0.669) but are now each significant at the 5% level (p-values of 0.042 and 0.047). The coefficient on *CFR* is again positive but not significant (coefficient estimate = 0.703, p-value = 0.190). Again, the implication is that a greater separation between insider voting and cash flow rights is associated with more readable MD&A, and that this effect is driven primarily by voting power effects rather than forces imparted by cash flow rights.

[Insert Table 13 about here]

Table 14 presents the results of the tests of H5a-c. Results in Column A, in support of H5a, indicate that *WEDGE* is positive and significantly associated with *NET_OPT*, the net optimism measure derived from Loughran and McDonald's (2011) optimistic and pessimistic word lists (coefficient estimate = 2.499, p-value = 0.040). Column B reports the results of tests of H5b-c. The coefficient on *VR* is positive and significant (coefficient estimate = 2.268, p-value = 0.060) while that on *CFR* is negative and significant (coefficient estimate = -3.186, p-value = 0.054); H5b and -c are thus supported. Together, these results indicate that the amount of optimistic language used in the MD&A section of 10-K reports increases in the difference between insider voting rights and cash flow rights, and specifically that optimism increases in insider voting rights and decreases in cash flow rights. The finding that optimism increases in the separation between voting and cash flow rights is consistent with motivated reasoning potentially playing a

role in the language used in MD&A reports. Of the significant control variables, larger firms and firms experiencing losses tend to be less optimistic, while greater leverage is associated with more optimism. Unexpectedly, positive earnings surprises are associated with lower levels of tonal optimism.

[Insert Table 14 about here]

4.6.2 Additional Analyses

Tests of H4a are repeated using two additional indicators of readability, the Smog Index and Flesch Reading Ease Score (Tables 15 and 16). Although not statistically significant at conventional levels, results are qualitatively similar to the main findings when these additional dependent variables are regressed on *WEDGE*: a higher wedge is associated with lower textual complexity.

[Insert Table 15 about here]

[Insert Table 16 about here]

Given the critique and findings of Loughran and McDonald (2014b) relative to the Fog Index, I also use another measure they propose for readability: word count. While in their main analysis the authors use 10-K file size, this measure would not be appropriate in my application as I am particularly interested in the MD&A section of the 10-K, not the entire file. However, the authors find a fairly high correlation (0.712) between their file size measure and the natural log of the

number of words in a 10-K document. I thus use word count and the natural log thereof in my analyses and the same control variables as in the prior readability models.

Results of using these alternate dependent variables are shown in Tables 17 and 18. When I regress word count and natural log of word count on *WEDGE* and the control variables, the coefficients of interest are not statistically significant at conventional levels (t-values of -1.12 and -1.07), but the negative estimated coefficients are consistent with my previous findings.³⁴ These results again suggest that a larger separation between inside voting and cash flow rights is associated with greater reading ease.

[Insert Table 17 about here]

[Insert Table 18 about here]

I repeat the test of H5a by measuring tonal optimism with the built-in optimism word list provided by DICTION 7 (Table 19). Using this alternative measure provides nearly identical results: higher *WEDGE* values are significantly associated with greater optimism (coefficient estimate = 0.955, p-value = 0.0318). Inside voting rights are also positively associated with the DICTION 7 optimism measure as well (coefficient estimate = 0.933, p-value = 0.0314), although inside cash flow rights are not significant (coefficient estimate = -0.941, p-value = 0.1315).

[Insert Table 19 about here]

³⁴ The coefficients on *VR* and *CFR* are also not significant at conventional levels in Tables 17 and 18, but the signs of the estimated coefficients on these variables are also what would be expected given the sign on *WEDGE*. Namely, the coefficients on *VR* are negative and those on *CFR* are positive.

One worry may be that observed results are a function of correlated omitted variables. One method to address this issue is the usage of a fixed-effects model. Fixed-effects models include a separate intercept for each firm in the sample, allowing correlated time-invariant firm-specific characteristics to “wash out.” However, for fixed-effects to be applied there must be at least two year observations for each firm and the wedge and language characteristics must vary over time. These requirements reduce the sample to 217 firms (773 observations) and 166 firms (511 observations) for readability and tone respectively. Tables 20 (readability) and 21 (tone) present the main results using fixed effects models. Results overall are consistent with the previously-reported OLS results. The coefficients on *WEDGE* and *VR* are even more significant in both tables (now at the 1% level) with the same signs as previously noted, partially alleviating concerns of endogeneity. As the wedge and voting rights increase within firms over time, MD&A become more readable and optimistic. However, the coefficient on *CFR* in Table 21, which was significant in the OLS models no longer is. This suggests that the findings on optimism are driven primarily by insider voting rights, as in the case of readability.

[Insert Table 20 about here]

[Insert Table 21 about here]

Tables – Chapter 4

Table 9: Essay II Descriptive Statistics

	N	Mean	Std. Dev.	1 st Percentile	Q1	Median	Q3	99 th Percentile
<i>Dependent variables</i>								
FOG	1,099	18.011	1.313	14.906	17.111	18.010	18.831	-21.060
NET_OPT	1,099	-3.869	4.792	-21.060	-5.920	-3.010	-1.110	5.180
<i>Variables of interest</i>								
WEDGE	1,099	0.299	0.198	-0.103	0.150	0.218	0.437	0.889
VR	1,099	0.567	0.261	0.003	0.379	0.635	0.753	1.000
CFR	1,099	0.268	0.205	0.003	0.109	0.218	0.383	0.878
<i>Controls</i>								
lnAT	1,099	6.794	1.825	1.951	5.660	6.825	7.878	11.969
MTB	1,085	2.215	23.175	-11.799	0.501	1.095	2.422	43.516
AGE	1,053	24.304	15.594	3.000	12.000	20.000	33.000	85.000
SI	1,099	-0.016	0.865	-0.801	-0.016	-0.002	0.000	0.088
RET_VOL	1,053	0.150	0.114	0.034	0.0855	0.116	0.176	0.636
EARN_VOL	1,097	268.391	1,094.970	0.533	12.382	36.394	135.577	5,958.970
lnSEG	1,099	0.860	0.779	0.000	0.000	1.099	1.386	2.565
SEO	1,099	1.359	1.691	0.000	0.000	0.606	2.218	6.331
DLW	1,099	0.626	0.484	0.000	0.000	1.000	1.000	1.000
LITRISK	1,051	-1.124	6.333	-5.033	-3.153	-2.280	-0.847	21.407
ROA	1,097	-0.078	1.411	-1.072	-0.021	0.027	0.069	0.319
FUT_ROA	1,067	-0.075	1.430	-0.749	-0.023	0.027	0.067	0.294
lnSALES	1,099	6.592	1.859	0.000	5.504	6.641	7.825	10.930
LOSS	1,099	0.322	0.467	0.000	0.000	0.000	1.000	1.000
LEV	1,096	0.355	0.319	0.000	0.111	0.291	0.512	1.465
BEAT	752	0.048	0.214	0.000	0.000	0.000	0.000	1.000
SURP	752	-0.063	0.477	0.000	-0.008	0.000	0.004	0.095
WC	1,099	10,455.20	4,583.60	1,966.00	7,084.00	9,657.00	13,398.00	25,973.00
PCTIND	748	0.670	0.135	0.333	0.600	0.667	0.778	0.909

The sample represents 1,099 firm-years (271 unique firms). Variable definitions: FOG = Fog Index value; NET_OPT = average number of words per 500 word sample in the MD&A for year t that are classified as optimistic less the average number of words per 500 word sample in the MD&A for year t that are classified as pessimistic using the word lists developed by Loughran and McDonald (2011); WEDGE = the difference between inside voting rights and inside cash flow rights; VR = insiders' board control rights; CFR = insiders' cash flow rights; lnAT = natural log of assets; MTB = market value of common equity divided by the book value of equity; AGE = the number of years a firm has appeared in the CRSP database; SI = amount of GAAP special items divided by assets; RET_VOL = standard deviation of monthly stock returns over the previous 12 months; EARN_VOL = standard deviation of annual earnings over the prior five years; lnSEG = the natural logarithm of the number of business and operating segments; SEO = natural logarithm of the sale of common and preferred shares; DLW = a dummy variable that takes a value of 1 if Compustat incorporation state is Delaware, and 0 otherwise; LITRISK = litigation risk, as modeled by Kim and Skinner (2012); ROA = income before extraordinary items for year t scaled by assets at t-1; FUT_ROA = ROA for year t + 1; lnSALES = natural log of sales in year t; LOSS = a dummy variable that equals 1 if ROA < 0 in year t, 0 otherwise; LEV = leverage ratio, measured as long term debt to total assets in year t; BEAT = a dummy variable that equals 1 if the firm just beat or met the mean consensus analyst forecast for year t; SURP = year t actual earnings – mean consensus forecast three months prior to fiscal year end scaled by stock price; WC = a word count of the number of words in the year t MD&A; PCTIND = the percentage of independent directors.

Table 10: Essay II Correlations - Model 4

Pearson (Above Diagonal) & Spearman (Below)

	WEDGE	VR	CFR	Fog	Flesch	Smog	FRE	lnAT	MTB	SI	RET VOL	EARN VOL	lnSEG	SEO	DLW	LIT RISK
WEDGE		0.630 ($<.001$)	-0.164 ($<.001$)	-0.093 (0.002)	-0.080 (0.008)	0.001 (0.982)	0.040 (0.183)	0.115 ($<.001$)	-0.063 (0.039)	-0.010 (0.733)	-0.080 (0.010)	-0.022 (0.465)	0.145 ($<.001$)	-0.016 (0.603)	0.035 (0.247)	-0.028 (0.359)
VR	0.583 ($<.001$)		0.663 ($<.001$)	-0.058 (0.055)	-0.062 (0.040)	0.012 (0.680)	0.039 (0.195)	-0.057 (0.061)	0.0475 (0.118)	0.011 (0.706)	-0.023 (0.455)	-0.116 ($<.001$)	-0.053 (0.078)	-0.121 ($<.001$)	0.084 (0.006)	-0.142 ($<.001$)
CFR	-0.025 (0.404)	0.694 ($<.001$)		0.016 (0.588)	-0.001 (0.963)	0.015 (0.616)	0.011 (0.719)	-0.183 ($<.001$)	0.121 ($<.001$)	0.024 (0.419)	0.048 (0.118)	-0.127 ($<.001$)	-0.207 ($<.001$)	-0.138 ($<.001$)	0.072 (0.016)	-0.157 ($<.001$)
Fog	-0.079 (0.009)	-0.033 (0.267)	-0.024 (0.434)		0.946 ($<.001$)	0.763 ($<.001$)	-0.868 ($<.001$)	0.245 ($<.001$)	-0.048 (0.113)	-0.028 (0.349)	0.138 ($<.001$)	0.101 (0.001)	0.106 ($<.001$)	0.170 ($<.001$)	0.125 ($<.001$)	0.140 ($<.001$)
Flesch	-0.067 (0.026)	-0.039 (0.196)	-0.049 (0.103)	0.0938 ($<.001$)		0.789 ($<.001$)	-0.910 ($<.001$)	0.287 ($<.001$)	-0.040 (0.192)	-0.036 (0.239)	0.115 ($<.001$)	0.116 ($<.001$)	0.140 ($<.001$)	0.154 ($<.001$)	0.153 ($<.001$)	0.141 ($<.001$)
Smog	-0.013 (0.656)	-0.004 (0.907)	-0.049 (0.103)	0.796 ($<.001$)	0.0856 ($<.001$)		-0.714 ($<.001$)	0.119 ($<.001$)	-0.040 (0.192)	-0.045 (0.134)	0.153 ($<.001$)	0.033 (0.271)	0.094 (0.002)	0.025 (0.409)	0.106 ($<.001$)	0.047 (0.130)
FRE	0.037 (0.215)	0.032 (0.288)	0.053 (0.077)	-0.0839 ($<.001$)	-0.892 ($<.001$)	-0.715 ($<.001$)		-0.353 ($<.001$)	0.051 (0.092)	0.031 (0.300)	-0.040 (0.199)	-0.131 ($<.001$)	-0.203 ($<.001$)	-0.172 ($<.001$)	-0.092 (0.002)	-0.162 ($<.001$)
lnAT	0.110 ($<.001$)	-0.033 (0.271)	-0.205 ($<.001$)	0.216 ($<.001$)	0.260 ($<.001$)	0.109 ($<.001$)	-0.322 ($<.001$)		-0.040 (0.189)	-0.051 (0.093)	-0.186 ($<.001$)	0.419 ($<.001$)	0.373 ($<.001$)	0.422 ($<.001$)	0.156 ($<.001$)	0.474 ($<.001$)
MTB	-0.094 (0.002)	0.154 ($<.001$)	0.245 ($<.001$)	-0.189 ($<.001$)	0.175 ($<.001$)	-0.159 ($<.001$)	0.115 ($<.001$)	-0.196 ($<.001$)		-0.017 (0.570)	-0.064 (0.040)	-0.019 (0.523)	-0.046 (0.129)	0.004 (0.884)	-0.014 (0.639)	-0.039 (0.220)
SI	0.050 (0.099)	0.080 (0.008)	0.080 (0.008)	-0.049 (0.103)	-0.058 (0.057)	-0.151 ($<.001$)	0.076 (0.012)	-0.047 (0.119)	0.156 ($<.001$)		-0.025 (0.413)	-0.014 (0.638)	-0.025 (0.412)	-0.013 (0.677)	-0.033 (0.277)	-0.014 (0.658)
RET_ VOL	-0.070 (0.022)	-0.029 (0.360)	0.033 (0.280)	0.153 ($<.001$)	0.116 ($<.001$)	0.151 ($<.001$)	-0.015 (0.625)	-0.256 ($<.001$)	-0.373 ($<.001$)	-0.190 ($<.001$)		0.009 (0.760)	-0.106 ($<.001$)	-0.157 ($<.001$)	0.032 (0.300)	0.185 ($<.001$)
EARN_ VOL	0.074 (0.014)	-0.048 (0.109)	-0.155 ($<.001$)	0.345 ($<.001$)	0.369 ($<.001$)	0.216 ($<.001$)	-0.381 ($<.001$)	0.734 ($<.001$)	-0.368 ($<.001$)	-0.162 ($<.001$)	0.108 ($<.001$)		0.200 ($<.001$)	0.197 ($<.001$)	0.062 (0.039)	0.763 ($<.001$)
lnSEG	0.116 ($<.001$)	-0.047 (0.120)	-0.190 ($<.001$)	0.110 ($<.001$)	0.140 ($<.001$)	0.077 (0.011)	-0.201 ($<.001$)	0.363 ($<.001$)	-0.107 ($<.001$)	-0.94 (0.002)	-0.091 (0.003)	0.305 ($<.001$)		0.113 ($<.001$)	-0.068 (0.024)	0.223 ($<.001$)
SEO	0.012 (0.691)	-0.108 ($<.001$)	0.211 ($<.001$)	0.142 ($<.001$)	0.119 ($<.001$)	0.022 (0.463)	-0.126 ($<.001$)	0.367 ($<.001$)	-0.005 (0.880)	0.047 (0.119)	-0.225 ($<.001$)	0.210 ($<.001$)	0.106 ($<.001$)		0.099 (0.001)	0.296 ($<.001$)
DLW	0.045 (0.137)	0.121 ($<.001$)	0.043 (0.158)	0.122 ($<.001$)	0.154 ($<.001$)	0.138 ($<.001$)	-0.097 (0.001)	0.141 ($<.001$)	-0.075 (0.014)	-0.013 (0.671)	0.007 (0.814)	0.179 ($<.001$)	-0.062 (0.038)	0.079 (0.009)		0.059 (0.055)
LIT RISK	0.000 (0.997)	-0.087 (0.005)	-0.165 ($<.001$)	0.342 ($<.001$)	0.334 ($<.001$)	0.202 ($<.001$)	-0.301 ($<.001$)	0.601 ($<.001$)	-0.494 ($<.001$)	-0.215 ($<.001$)	0.439 ($<.001$)	0.727 ($<.001$)	0.251 ($<.001$)	0.211 ($<.001$)	0.157 ($<.001$)	

This table indicates correlations coefficients above p-values of correlations. The sample represents 1,099 firm-years (271) unique firms). Flesch = Flesch-Kincaid Score. Smog = Smog Score. FRE = Flesch Reading Ease Score. All other variables defined in Table 9.

Table 11: Essay II Correlations - Model 5*Pearson (Above Diagonal) & Spearman (Below)*

	NET_OPT	OPT	WEDGE	VR	CFR	ROA	FUT ROA	lnSALES	LOSS	LEV	BEAT	SURP	WC
NET_OPT		0.343 ($<.001$)	0.023 (0.448)	-0.025 (0.407)	-0.054 (0.074)	0.003 (0.926)	-0.029 (0.339)	-0.027 (0.0375)	-0.052 (0.088)	-0.121 ($<.001$)	-0.014 (0.706)	-0.047 (0.201)	0.050 (0.100)
OPT	0.264 ($<.001$)		0.071 (0.018)	0.07 (0.804)	-0.059 (0.050)	0.015 (0.609)	0.039 (0.195)	0.0104 ($<.001$)	-0.043 (0.152)	0.185 ($<.001$)	0.007 (0.859)	-0.009 (0.813)	0.152 ($<.001$)
WEDGE	0.023 (0.441)	0.074 (0.015)		0.630 ($<.001$)	-0.164 ($<.001$)	0.108 ($<.001$)	0.111 ($<.001$)	0.154 ($<.001$)	-0.154 ($<.001$)	-0.0939 (0.002)	0.019 (0.603)	0.028 (0.442)	-0.007 (0.820)
VR	0.004 (0.8924)	0.028 (0.346)	0.583 ($<.001$)		0.663 ($<.001$)	0.010 (0.729)	0.013 (0.662)	-0.038 (0.021)	-0.068 (0.025)	-0.051 (0.094)	-0.008 (0.783)	-0.010 (0.783)	-0.096 (0.002)
CFR	-0.034 (0.264)	-0.039 (0.200)	-0.025 (0.4039)	0.694 ($<.001$)		-0.091 (0.003)	-0.091 (0.003)	-0.196 ($<.001$)	0.062 (0.039)	-0.026 (0.393)	-0.030 (0.408)	-0.042 (0.245)	-0.115 ($<.001$)
ROA	0.013 (0.668)	-0.025 (0.409)	0.155 ($<.001$)	0.095 (0.002)	-0.044 (0.145)		0.712 ($<.001$)	0.240 ($<.001$)	-0.161 ($<.001$)	0.050 (0.098)	0.059 (0.108)	0.235 ($<.001$)	0.103 ($<.001$)
FUT_ROA	-0.020 (0.504)	0.006 (0.855)	0.154 ($<.001$)	0.095 (0.002)	-0.031 (0.318)	0.656 ($<.001$)		0.227 ($<.001$)	-0.118 ($<.001$)	0.057 (0.064)	0.037 (0.315)	0.092 (0.012)	0.105 ($<.001$)
lnSALES	-0.028 (0.355)	0.118 ($<.001$)	0.150 ($<.001$)	-0.018 (0.548)	-0.198 ($<.001$)	0.315 ($<.001$)	0.318 ($<.001$)		-0.327 ($<.001$)	0.145 ($<.001$)	-0.056 (0.126)	0.082 (0.025)	0.516 ($<.001$)
LOSS	-0.044 (0.145)	-0.039 (0.199)	-0.144 ($<.001$)	-0.070 (0.021)	0.057 (0.060)	-0.809 ($<.001$)	-0.496 ($<.001$)	-0.313 ($<.001$)		0.167 ($<.001$)	-0.062 (0.088)	-0.220 ($<.001$)	-0.009 (0.773)
LEV	0.145 ($<.001$)	0.259 ($<.001$)	-0.083 (0.006)	-0.059 (0.052)	-0.056 (0.064)	-0.227 ($<.001$)	0.178 ($<.001$)	0.225 ($<.001$)	0.115 ($<.001$)		-0.071 (0.053)	-0.175 ($<.001$)	0.339 ($<.001$)
BEAT	-0.002 (0.948)	-0.020 (0.576)	0.017 (0.645)	0.001 (0.972)	-0.039 (0.285)	0.085 (0.019)	0.050 (0.171)	-0.051 (0.159)	-0.062 (0.088)	-0.067 (0.067)		0.030 (0.419)	-0.032 (0.3746)
SURP	-0.000 (0.998)	0.075 (0.041)	0.027 (0.452)	-0.043 (0.240)	-0.100 (0.006)	0.266 ($<.001$)	0.281 ($<.001$)	0.088 (0.016)	-0.218 ($<.001$)	-0.058 (0.112)	-0.021 (0.563)		0.001 (0.979)
WC	0.051 (0.094)	0.148 ($<.001$)	-0.007 (0.816)	-0.060 (0.047)	-0.139 ($<.001$)	-0.032 (0.295)	0.004 (0.886)	0.498 ($<.001$)	-0.010 (0.741)	0.384 ($<.001$)	-0.022 (0.553)	-0.020 (0.585)	

This table indicates correlations coefficients above p-values of correlations. The sample represents 1,099 firm-years (271) unique firms). OPT = optimism measure from DICTION 7 software program. All other variables defined in Table 9.

Table 12: The effect of insider voting and cash flow rights on MD&A readability as measured by the Fog Index

	Column A			Column B		
	Coeff. est.	t value		Coeff. est.	t value	
WEDGE	-0.674	-1.93	*			
VR				-0.634	-1.85	*
CFR				0.726	1.34	
<i>Controls</i>						
lnAT	0.238	4.11	***	0.236	3.99	***
MTB	-0.023	-1.85	*	-0.023	-1.79	*
AGE	-0.011	-1.93	*	-0.010	-1.79	*
SI	-0.424	-1.46		-0.432	-1.49	
RET_VOL	1.837	3.92	***	1.811	3.82	***
EARN_VOL	-0.000	-1.16		-0.000	-1.17	
lnSEG	0.072	0.74		0.073	0.75	
SEO	0.067	2.31	**	0.069	2.43	**
DLW	0.064	0.44		-0.015	-0.10	
LITRISK	-0.026	-1.39		-0.005	-0.28	
Model F statistic		14.31	***		70.09	***
Adjusted R ²		0.431			0.430	
N		1,042			1,042	

The dependent variable is the Fog Index value for MD&A; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 9. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 13: The effect of insider voting and cash flow rights on MD&A readability as measured by the Flesch-Kincaid Readability Score

	Column A			Column B		
	Coeff. est.	t value		Coeff. est.	t value	
WEDGE	-0.698	-2.04	**			
VR				-0.669	-2.00	**
CFR				0.703	1.31	
<i>Controls</i>						
lnAT	0.254	4.54	***	0.252	4.38	***
MTB	-0.024	-2.19	**	-0.024	-2.07	**
AGE	-0.007	-1.31		-0.007	-1.23	
SI	-0.235	-0.85		-0.240	-0.87	
RET_VOL	1.808	3.90	***	1.798	3.84	***
EARN_VOL	-0.000	-0.35		-0.000	-0.36	
lnSEG	0.124	1.22		0.073	1.22	
SEO	0.040	1.39		0.041	1.44	
DLW	0.064	0.44		-0.064	0.44	
LITRISK	-0.026	-1.39		-0.025	-1.24	
Model F statistic		11.22	***		41.50	***
Adjusted R ²		0.406			0.406	
N		1,042			1,042	

The dependent variable is the Flesch-Kincaid Readability Score value for MD&A; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 9. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 14: The effect of insider voting and cash flow rights on MD&A tonal optimism as measured by the Loughran & McDonald (2011) Dictionaries

	Column A		Column B		
	Coeff. est.	t value	Coeff. est.	t value	
WEDGE	2.499	2.06			**
VR			2.268	1.89	*
CFR			-3.186	-1.94	*
<i>Controls</i>					
ROA	0.848	0.48	0.892	0.50	
FUT_ROA	-0.940	-0.71	-0.920	-0.69	
lnSALES	-0.355	-2.24	-0.375	-2.34	**
LOSS	-1.293	-2.29	-1.236	-2.25	**
LEV	3.535	3.57	3.516	3.60	***
BEAT	-0.260	-0.46	-0.290	-0.52	
SURP	-0.372	-1.77	-0.372	-1.73	*
lnWC	1.187	1.67	1.164	1.61	
PCTIND	4.131	2.55	3.697	2.15	**
Model F statistic		9.60		14.56	***
Adjusted R ²		0.217		0.218	
N		732		732	

The dependent variable is NET_OPT = average number of words per 500 word sample in the MD&A for year t that are classified as optimistic less the average number of words per 500 word sample in the MD&A for year t that are classified as pessimistic using the word lists developed by Loughran and McDonald (2011); WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 9. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 15: The effect of insider voting and cash flow rights on MD&A readability as measured by the Smog Index

	Column A		Column B	
	Coeff. est.	t value	Coeff. est.	t value
WEDGE	-0.165	-1.05		
VR			-0.147	-0.95
CFR			0.193	0.88
<i>Controls</i>				
lnAT	0.057	2.50 **	0.056	2.42 **
MTB	-0.008	-1.52	-0.008	-1.54
AGE	-0.004	-1.59	-0.004	-1.52
SI	-0.189	-1.61	-0.192	-1.65 *
RET_VOL	0.631	3.02 ***	0.618	2.94 ***
EARN_VOL	-0.000	-0.78	-0.000	-0.80
lnSEG	0.023	0.59	0.024	0.61
SEO	-0.002	-0.14	-0.001	-0.08
DLW	0.007	0.12	0.007	0.11
LITRISK	-0.005	-0.53	-0.004	-0.43
Model F statistic		36.78 ***		46.26 ***
Adjusted R ²		0.375		0.375
N		1,042		1,042

The dependent variable is the Smog Index value for MD&A; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 9. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 16: The effect of insider voting and cash flow rights on MD&A readability as measured by the Flesch Reading Ease Score

	Column A		Column B	
	Coeff. est.	t value	Coeff. est.	t value
WEDGE	1.77	1.28		
VR			1.553	1.16
CFR			-2.603	-1.21
<i>Controls</i>				
lnAT	-1.217	-5.38	-1.192	-5.20
MTB	0.078	1.75	0.088	1.88
AGE	0.019	0.93	0.017	0.77
SI	1.336	1.44	1.395	1.51
RET_VOL	-3.261	-1.82	-2.957	-1.64
EARN_VOL	0.000	1.38	0.000	1.40
lnSEG	-0.601	-1.56	-0.622	-1.62
SEO	-0.129	-1.20	-0.147	-1.39
DLW	-0.035	-0.06	-0.022	-0.04
LITRISK	0.079	1.25	0.062	0.89
Model F statistic		15.40		12.14
Adjusted R ²		0.392		0.393
N		1,042		1,042

The dependent variable is the Flesch Reading Ease Score value for MD&A; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 9. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 17: The effect of insider voting and cash flow rights on MD&A readability as measured by Word Count

	Column A		Column B	
	Coeff. est.	t value	Coeff. est.	t value
WEDGE	-1,080.15	-1.12		
VR			-1,069.01	-1.09
CFR			676.17	0.54
<i>Controls</i>				
lnAT	1,608.01	7.78 ***	1,615.78	7.75 ***
MTB	20.76	0.77	24.82	0.88
AGE	-27.04	-1.64	-28.01	-1.66 *
SI	-711.44	-0.70	-759.29	-0.69
RET_VOL	8,010.33	3.14 ***	8,126.33	3.13 ***
EARN_VOL	0.49	0.86	0.50	0.86
lnSEG	1,138.52	4.33 ***	1,128.90	4.36 ***
SEO	62.67	0.58	56.92	0.53
DLW	562.66	1.20	565.80	1.22
LITRISK	-165.42	-0.90	-171.04	-0.92
Model F statistic		43.85 ***		46.26 ***
Adjusted R ²		0.511		0.375
N		1,042		1,042

The dependent variable is the number of words in the MD&A; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 9. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 18: The effect of insider voting and cash flow rights on MD&A readability as measured by Natural Log of Word Count

	Column A		Column B	
	Coeff. est.	t value	Coeff. est.	t value
WEDGE	-0.112	-1.07		
VR			-0.110	-1.03
CFR			0.037	0.29
<i>Controls</i>				
lnAT	0.177	8.64 ***	0.179	8.95 ***
MTB	-0.003	-0.51	-0.003	-0.38
AGE	-0.003	-1.98 *	-0.003	-2.07 **
SI	-0.113	-1.10	-0.110	-1.08
RET_VOL	0.999	4.66 ***	1.021	4.70 ***
EARN_VOL	0.000	0.56	0.000	0.58
lnSEG	0.114	4.48 ***	0.112	4.49
SEO	0.005	0.49	0.004	0.39
DLW	0.070	1.46	0.070	1.48
LITRISK	-0.022	-1.56	-0.023	-1.62
Model F statistic		52.58 ***		23.58 ***
Adjusted R ²		0.522		0.522
N		1,042		1,042

The dependent variable is the natural log of words in the MD&A; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 9. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 19: The effect of insider voting and cash flow rights on MD&A tonal optimism as measured by the DICTION 7 Optimism Measure

	Column A		Column B		
	Coeff. est.	t value	Coeff. est.	t value	
WEDGE	0.955	2.16			**
VR			0.933	2.17	**
CFR			-0.941	-1.50	
<i>Controls</i>					
ROA	0.263	0.41	0.265	0.041	
FUT_ROA	-0.063	-0.09	-0.057	-0.09	
lnSALES	0.057	0.97	0.057	-0.97	
LOSS	-0.232	-1.35	-0.231	-1.34	
LEV	1.574	4.84	1.570	4.83	***
BEAT	0.070	0.42	0.069	0.41	
SURP	-0.009	-0.08	-0.009	-0.08	
lnWC	0.054	0.24	0.048	0.21	
PCTIND	-0.263	-0.45	-0.271	-0.45	
Model F statistic		2,463.16		3,470.31	***
Adjusted R ²		0.141		0.139	
N		732		732	

The dependent variable is OPT = average number of words per 500 word sample in the MD&A for year t that are classified as optimistic using the word list in DICTION 7; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 9. All models include an intercept, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 20: Fixed Effects - the effect of insider voting and cash flow rights on MD&A readability as measured by the Fog Index

	Column A		Column B		
	Coeff. est.	t value	Coeff. est.	t value	
WEDGE	-0.894	-2.63			***
VR			-0.898	-2.64	***
CFR			0.873	1.91	*
<i>Controls</i>					
lnAT	0.078	1.30	0.078	1.30	
MTB	-0.002	-0.52	-0.002	-0.51	
SI	0.147	0.99	0.147	0.98	
RET_VOL	-0.395	-1.22	-0.393	-1.21	
EARN_VOL	0.000	0.41	0.000	0.41	
lnSEG	-0.016	-0.26	-0.016	-0.26	
SEO	0.011	0.76	0.012	0.76	
LITRISK	0.031	1.46	0.031	1.45	
F-test for No Fixed Effects		20.52		20.51	***
R ²		0.921		0.921	
N		773		772	

The dependent variable is the Fog Index value for MD&A; WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 9. Estimates and t-statistics are calculated based on a fixed effects model. All models include firm-specific intercepts, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

Table 21: Fixed Effects - the effect of insider voting and cash flow rights on MD&A tonal optimism as measured by the Loughran & McDonald (2011) Dictionaries

	Column A		Column B		
	Coeff. est.	t value	Coeff. est.	t value	
WEDGE	7.970	2.79			***
VR			7.657	2.68	***
CFR			-4.807	-1.16	
<i>Controls</i>					
ROA	-2.111	-1.14	-2.123	-1.15	
FUT_ROA	-2.177	-1.29	-2.136	-1.26	
lnSALES	-0.386	-0.81	-0.275	-0.56	
LOSS	-1.225	-2.61	-1.254	-2.67	***
LEV	1.318	0.74	1.376	0.77	
BEAT	0.169	0.29	0.169	0.29	
SURP	-0.242	-0.80	-0.237	-0.78	
lnWC	1.562	1.46	1.601	1.50	
PCTIND	-0.260	-0.12	-0.228	-0.10	
F-test for No Fixed Effects		3.63		3.62	***
R ²		0.656		0.657	
N		511		510	

The dependent variable is NET_OPT = average number of words per 500 word sample in the MD&A for year t that are classified as optimistic less the average number of words per 500 word sample in the MD&A for year t that are classified as pessimistic using the word lists developed by Loughran and McDonald (2011); WEDGE is the divergence of voting rights from cash flow rights computed as the difference between VR and CFR; VR is the proportion of the board elected by insiders; CFR is the proportion of dividend rights owned by insiders. Other variables are defined in Table 9. Estimates and t-statistics are calculated based on a fixed effects model. All models include firm-specific intercepts, as well as year and Fama and French (1997) indicator variables. Test statistics and significance levels are calculated based on standard errors (Rogers) clustered at the firm level. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively (two-sided tests).

CHAPTER 5 – Conclusion

This dissertation examines disclosure patterns of dual class firms. The association between inside ownership and voluntary and mandatory disclosure has received only limited attention in the literature. Yet management ownership of shares confers two conflicting forces on management, and for this reason dual class firms offer a more nuanced way to examine the effects of inside ownership.

First, owning shares provides management with a stake in the residual cash flow of the organization in the form of dividend rights. This “incentive-alignment” effect may cause management to run the corporation in the interests of outside shareholders (i.e., to maximize firm value). Second, share ownership gives management votes for the board of directors, with whom ultimate control of the corporation rests. The greater the level of share ownership, the more influence management has over the board and the more likely management is to become entrenched – that is, to pursue its own interests and not be bound by effective board oversight. In most corporations these effects are confounded. It is not possible to discern the differing effects of each because insiders always hold equal levels of voting and cash flow rights. In dual class firms, however, voting rights and cash flow rights can be separately identified along with the forces imparted by each. As a result, it may be possible to find associations between aspects of managerial share ownership and response variables using dual class firms that would otherwise be masked. In other instances, where associations have been found with inside ownership, using dual class firms allows the researcher to observe which effect (voting rights or cash flow) is driving the observed results.

Karamanou and Vafeas (2005) study the relationship between the number of shares owned by management and earnings guidance. Lee (2007) finds that disclosure decreases for firms with a greater wedge between inside voting rights and cash flow rights in regards to the inclusion of specific items in annual reports, and Tinaikar (2014) finds that compensation disclosure is worse for dual class firms. However, to date no studies have looked at the association between the wedge and management earnings forecasts, or the association between the wedge and textual characteristics of the MD&A section of the 10-K.

Essay I investigates the wedge and properties of management earnings guidance. I examine three separate aspects of earnings guidance. First, as the wedge increases and the entrenchment effect dominates the incentive-alignment effect, management is less likely to supply management earnings forecasts because they are more likely to be insulated from the demands of the market, including those for more information. Further, I predict when management does issue forecasts, they are more likely to be in the form of a range than a point forecast as the wedge increases. Finally, I hypothesize that management forecast accuracy decreases in the wedge as management will have less incentive to provide accurate forecasts.

I test these hypotheses using models similar to those used by Karamanou and Vafeas (2005), but fail to find support for the three hypotheses. I do not find an association between the wedge, inside voting rights, or inside cash flow rights on the propensity to issue earnings guidance, the type of forecast (i.e., range or point), or forecast accuracy, as measured by absolute forecast error. In additional tests, I examine signed management forecast accuracy and fixed-effects models for the accuracy models. However, I continue to fail to find significant results in these specifications.

Essay II examines the association between the wedge and textual characteristics of the MD&A section of 10-K filings. I consider readability first. Ex ante, I do not predict a direction of the effect of the wedge on readability due to its potentially conflicting impacts. On the one hand, a greater separation between voting and cash flow rights may result in management paying less attention to the needs of investors (due to their insulation) and therefore not ensuring that filings are readable. On the other, a larger wedge may result in more readable documents if readability is used in a monitoring role to reduce agency problems, in much the same way as Dey et al. (2012) find debt to be used. That is, managers with a high level of control relative to cash flow may commit to clear and readable communication to partially offset their ability to expropriate value from outside shareholders. Thus while I predict an association between the wedge and readability, I do not predict a direction.

I likewise do not form a directional hypothesis regarding the wedge and tone. Prior literature has shown a positive association between pressure to manage earnings and optimistic language used by management (Davis and Tama-Sweet, 2012). As firms with a larger wedge have less incentive to manage earnings (Chen, 2008; Nguyen and Xu, 2010), the language in their SEC filings may tend to be less overly optimistic (controlling for current and future performance). On the other hand, given the close relationship typically found between management and dual class firms, motivated reasoning may cause managers to use more optimistic language. Therefore I again do not predict a direction for my hypothesis.

Results indicate a positive association between the wedge and readability. As the separation between voting rights and cash flow rights increases, so does the readability of the MD&A section of 10-K filings as measured by the Fog Index. When I decompose the wedge into its components of inside voting rights and cash flows, I find that it is primarily voting rights which

drive the observed result regarding the wedge. Using the Flesch-Kincaid Readability Index as an alternative measure of readability, I obtain nearly identical results, adding robustness to my original findings. This suggests management may use readability as a monitoring mechanism to partially alleviate the concerns of outside shareholders vulnerable to agency problems.

Concerning the tone of MD&A, as measured by the optimistic and pessimistic word lists developed by Loughran and McDonald (2011), my findings indicate that a greater wedge is associated with more optimistic filings. Each of the wedge components is also significantly related to optimism: inside voting rights are associated with more optimism while inside cash flow rights are associated with less.

In additional analyses I perform a number of further specification tests. I find qualitatively similar results for three other measures of readability, the Smog Index, the Flesch Reading Ease Score, and length (number of words); again, a larger wedge is associated with greater readability. I also use another measure of optimism that is a built-in function in the DICTION 7 software program. My results using this measure of optimism are slightly stronger for both the wedge and inside voting rights, where higher levels of these variables are associated with greater levels of optimism. However, results regarding inside cash flow rights are not statistically significant at conventional levels. To address concerns of the endogeneity of the wedge variable with respect to correlated omitted firm-specific variables that are constant over time, I also use fixed effects models and repeat my primary analyses. Results from the fixed effects model indicate that coefficient estimates on my variables of interest continue to be statistically significant, and in fact generally are stronger, with the exception of inside cash flow rights in the optimism model. These fixed effects models provide robust findings which suggest that changes in the wedge over time are associated with changes in readability and tone.

These findings have several implications. First and foremost, it appears as though inside voting rights and cash flow rights matter when it comes to narrative disclosure. To the best of my knowledge no previous study had made such a connection. More specifically, I find that a greater wedge leads to more readable disclosures. This result is interesting as it suggests that managers voluntarily undertake actions to partially offset their control rights. As such, the amount of external regulation necessary to protect outside investors in situations of high inside ownership may be less than what would be assumed if managers were not voluntarily forthcoming. However, while managers with high control rights relative to cash flow tend to use clearer language, they also tend to use more optimistically-biased language. Financial statement users may need to keep this in mind as they read the financial statements of firms with high inside control rights relative to cash flow. The SEC may wish to keep these pieces of information in mind when crafting future “Plain English” guidelines.

My second essay is subject to some limitations. First, the sample size is relatively small at 1,099 observations. Part of this is due to the fact that there is a relative paucity of dual class firms (271 firms are used in this part of the study). However, in the future I could extend the time series back to the year 2000. This could more than double the number of observations available and provide much greater statistical power. A longer time series of data would also help with the limitation that the sample period covers the “Great Recession” and its subsequent slow recovery. For example, the particular years observed used may be the reason the average net optimism score is -3.869. While it is not clear how a crisis period would result in systematically different reporting patterns across firms with differing levels of the wedge, it would nonetheless be interesting to see if it had an effect on the results obtained in this study. Upon expanding my sample size to a substantial pre-crisis period, I plan on re-running the tests on the whole period

(2000 to the present), as well as implementing split-sample tests (before/after), or using an interaction with a “Crisis Period” indicator variable and the wedge to measure the impact of the financial crisis.

A final limitation concerns econometric issues. Dual class status, or the level of the wedge, has not been randomly assigned to the firms under study. As a result, whether a firm is dual class or the size of the wedge can be viewed as a choice or a sample selection bias problem. If one views dual class status as a choice problem, then it is an endogenous variable and needs to be treated appropriately. The fixed-effects models used in this study provide one way to account for time-invariant correlated omitted variables, however a potentially stronger approach to address endogeneity is to use either propensity matching or an instrumental variable approach. In propensity matching, dual class firms are matched with non-dual class firms on a host of attributes that are related to the likelihood of being dual class. Gompers et al. (2010) identify a set of variables that attempt to capture private benefits of control, including whether a firm is in the media industry, whether a person’s name is used in the firm’s name, and multiple measures of performance in a given geographic area. Using these variables, it is possible to develop a propensity score for being dual class. In this approach, the dual class and non-dual class observations with the closest propensity scores are matched. These firms are likely to be very similar except for their choice of being dual class, and so correlated omitted variables are also likely to be similar across matches. The models used in this essay can then be run on the matched sample and the effect of wedge, inside voting rights, and inside cash flow rights can be estimated. An alternative approach is to instrument the wedge using the same variables and run the tests on the dual class sample. This approach is taken in Gompers et al. (2010).

Dual class status can also be viewed as a sample selection problem because we cannot observe the effect of dual class status on all firms, only those which are actually dual class. In other words, dual class status is not randomly assigned to firms, but rather it is a structure that firms select to use. To control for this selection problem, one models the probability of dual class on the variables used in the endogeneity tests above; these variables are used to predict the likelihood that a firm adopts a dual class status. From this probit regression, an inverse Mills ratio is computed and added as an additional control variable to the regression models used in this paper. The models are then relatively robust to selection issues. In future versions of this study, I will perform propensity score matching to further control for endogeneity and the Heckman 2-stage procedure to control for selection bias.

There are a number of avenues which can be explored from my second essay. First, I can expand the realm of study from dual class firms to all firms. Dual class and non-dual class firms can be compared using either a dichotomous variable (taking a value of 1 if a firm is dual class and 0 if not) or the wedge. Non-dual class firms implicitly have a wedge value of 0 and so can be readily compared with dual class firms using the same independent variable used in this study. This would allow the researcher to see if dual class firms vary systematically in their disclosure patterns from non-dual class firms. Alternatively, given the limited research regarding inside ownership and disclosure, I could simply use inside ownership as an independent variable of interest and investigate its effect on tone and readability. While doing so would necessarily cause the loss of granularity which the wedge affords, it may still be interesting to estimate this effect, both for its own right and to see how the effect of inside ownership in general differs from the wedge and its components in particular.

Turning my attention back to my first essay, I address the lack of statistically significant results. I believe the primary reason for the lack of statistically significant results is due to the main limitation of the first essay: a small sample size of 337 observations. In generating this sample I was limited to the observations I could find in the Factiva database. I ultimately hope to re-test my hypotheses on a larger data set. However, it should be noted that the sample size for the main analyses of Karamanou and Vafeas (2005) is only 553 firm-year observations. When they partition their data into “good news” and “bad news” subsamples their sample sizes are roughly comparable to mine. Thus, I feel that while small my sample is not completely unreasonable. Access to a larger sample would help clarify whether my lack of significant results is due to a lack of statistical power or a true absence of association between my variables of interest and outcome variables examined. In the future, with access to a larger dataset, I may also want to compare dual class firms and non-dual class firms to see if their managerial earnings guidance practices differ. I can do so either with using a dichotomous variable to indicate whether a firm is dual class or with the wedge, as previously described above. Finally, I could also compare the results obtained in my two essays. Given the results in my second essay, I am interested in investigating whether the optimism indicated may also be reflected in my first essay. Once I obtain access to a larger sample for my first essay, I will be curious to see if management earnings forecasts tend to increase in optimism as the wedge grows larger, much as the language used becomes more optimistic in the wedge. If this turns out to be the case, I may wish to extend this study to other measures of managerial optimism, such as share purchases.

REFERENCES

- Abrahamson, E., & Amir, E. (1996). The information content of the president's letter to shareholders. *Journal of Business Finance & Accounting*, 23(8), 1157-1182.
- Ahmed, K., & Courtis, J. K. (1999). Associations between corporate characteristics and disclosure levels in annual reports: a meta-analysis. *The British Accounting Review*, 31(1), 35-61.
- Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors and the properties of management earnings forecasts. *Journal of Accounting Research*, 43(3), 343-376.
- Ajinkya, B. B., & Gift, M. J. (1984). Corporate managers' earnings forecasts and symmetrical adjustments of market expectations. *Journal of Accounting Research*, 22(2), 425-444.
- Ali, A., Chen, T. Y., & Radhakrishnan, S. (2007). Corporate disclosures by family firms. *Journal of Accounting and Economics*, 44(1), 238-286.
- Amoako-Adu, B., & Smith, B. F. (2001). Dual class firms: Capitalization, ownership structure and recapitalization back into single class. *Journal of Banking & Finance*, 25(6), 1083-1111.
- Ang, J. S., & Megginson, W. L. (1989). Restricted voting shares, ownership structure, and the market value of dual-class firms. *Journal of Financial Research*, 12(4), 301-18.
- Arugaslan, O., Cook, D. O., & Kieschnick, R. (2010). On the decision to go public with dual class stock. *Journal of Corporate Finance*, 16(2), 170-181.
- Asthana, S., & Balsam, S. (2002). The effect of EDGAR on the market reaction to 10-K filings. *Journal of Accounting and Public Policy*, 20(4), 349-372.
- Asthana, S., Balsam, S., & Sankaraguruswamy, S. (2004). Differential response of small versus large investors to 10-K filings on EDGAR. *The Accounting Review*, 79(3), 571-589.
- Baek, H. Y., Johnson, D. R., & Kim, J. W. (2009). Managerial ownership, corporate governance, and voluntary disclosure. *Journal of Business and Economic Studies*, 15(2), 44.
- Baik, B., Kang, J. K., & Morton, R. (2010). Why are analysts less likely to follow firms with high managerial ownership? *Journal of Accounting, Auditing & Finance*, 25(2), 171-200.
- Ball, R., Robin, A., & Sadka, G. (2005). Is accounting conservatism due to debt or share markets? A test of "contracting" versus "value relevance" theories of accounting. Working paper, University of Chicago.

- Ball, R., & Shivakumar, L. (2008). How much new information is there in earnings? *Journal of Accounting Research*, 46(5), 975-1016.
- Bamber, L. S., & Cheon, Y. S. (1998). Discretionary management earnings forecast disclosures: Antecedents and outcomes associated with forecast venue and forecast specificity choices. *Journal of Accounting Research*, 36(2), 167-190.
- Barron, O. & Stuerke, P. (1998). Dispersion in analysts' earnings forecasts as a measure of uncertainty. *Journal of Accounting, Auditing, and Finance*, 13(3), 245-270.
- Bebchuk, L. A., Kraakman, R., & Triantis, G. (2000). Stock pyramids, cross-ownership, and dual class equity: the mechanisms and agency costs of separating control from cash-flow rights. In *Concentrated Corporate Ownership* (pp. 295-318). University of Chicago Press.
- Bergström, C., & Rydqvist, K. (1990). Ownership of equity in dual-class firms. *Journal of Banking & Finance*, 14(2), 255-269.
- Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics*, 50(2), 296-343.
- Blouin, M. C. (2010). What Types of Firms Send a Clear Signal in the MD&A? Determinants of Annual Report Readability. *Journal of the Academy of Business & Economics*, 10(1), 24-38.
- Brown, L. D., Richardson, G. D., & Schwager, S. J. (1987). An information interpretation of financial analyst superiority in forecasting earnings. *Journal of Accounting Research*, 25, 49-67.
- Bushman, R., Chen, Q., Engel, E., & Smith, A. (2004). Financial accounting information, organizational complexity and corporate governance systems. *Journal of Accounting and Economics*, 37(2), 167-201.
- Buzby, S. L. (1974). Selected items of information and their disclosure in annual reports. *The Accounting Review*, 49(3), 423-435.
- Buzby, S. L. (1975). Company size, listed versus unlisted stocks, and the extent of financial disclosure. *Journal of Accounting Research*, 16-37.
- Callen, J. L., Khan, M., & Lu, H. (2013). Accounting Quality, Stock Price Delay, and Future Stock Returns. *Contemporary Accounting Research*, 30(1), 269-295.
- Chau, G. K., & Gray, S. J. (2002). Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore. *The International Journal of Accounting*, 37(2), 247-265.
- Chen, F. (2008). Capital market pressures and earnings management: Evidence from US dual-class firms (Doctoral dissertation, Columbia University).

- Chen, S., Chen, X., & Cheng, Q. (2008). Do family firms provide more or less voluntary disclosure? *Journal of Accounting Research*, 46(3), 499-536.
- Chung, K. H., & Zhang, H. (2011). Corporate governance and institutional ownership. *Journal of Financial and Quantitative Analysis*, 46(01), 247-273.
- Claessens, S., Djankov, S., Fan, J. P., & Lang, L. H. (2002). Disentangling the incentive and entrenchment effects of large shareholdings. *The Journal of Finance*, 57(6), 2741-2771.
- Clement, M., Frankel, R., & Miller, J. (2003). Confirming management earnings forecasts, earnings uncertainty, and stock returns. *Journal of Accounting Research*, 41(4), 653-679.
- Cooke, T. E. (1989). Disclosure in the corporate annual reports of Swedish companies. *Accounting and Business Research*, 19(74), 113-124.
- Core, J. E., Guay, W., & Larcker, D. F. (2003). Executive equity compensation and incentives: A survey. *Economic Policy Review*, 9(1), 27-50.
- Cornett, M. M., & Vetsuypens, M. R. (1989). Voting rights and shareholder wealth the issuance of limited voting common stock. *Managerial and Decision Economics*, 10(3), 175-188.
- Courtis, J. K. (1986). An investigation into annual report readability and corporate risk-return relationships. *Accounting and Business Research*, 16(64), 285-294.
- Courtis, J. K. (1995). Readability of annual reports: Western versus Asian evidence. *Accounting, Auditing & Accountability Journal*, 8(2), 4-17.
- Courtis, J. K. (1998). Annual report readability variability: tests of the obfuscation hypothesis. *Accounting, Auditing & Accountability Journal*, 11(4), 459-472.
- Dale, E., & Chall, J. S. (1949). The concept of readability. *Elementary English*, 26(1), 19-26.
- Davis, A. K., & Tama-Sweet, I. (2012). Managers' Use of Language Across Alternative Disclosure Outlets: Earnings Press Releases versus MD&A. *Contemporary Accounting Research*, 29(3), 804-837.
- Davis, A. K., Piger, J. M., & Sedor, L. M. (2012). Beyond the Numbers: Measuring the Information Content of Earnings Press Release Language. *Contemporary Accounting Research*, 29(3), 845-868.
- DeAngelo, H., & DeAngelo, L. (1985). Managerial ownership of voting rights: A study of public corporations with dual classes of common stock. *Journal of Financial Economics*, 14(1), 33-69.
- DeAngelo, H., & Rice, E. M. (1983). Antitakeover charter amendments and stockholder wealth. *Journal of Financial Economics*, 11(1), 329-359.

- Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50(2), 344-401.
- Demers, E. A. and Vega, C. (2011). Linguistic Tone in Earnings Announcements: News or Noise? FRB International Finance Discussion Paper No. 951. Available at SSRN: <http://ssrn.com/abstract=1152326> or <http://dx.doi.org/10.2139/ssrn.1152326>
- Dey, A.; V. Nikolaev; and X. Wang. "Disproportional Control and the Bonding Role of Debt." 2012, Working paper. Available at <http://faculty.chicagobooth.edu/valeri.nikolaev/PDF/Dey%20Nikolaev%20Wang%202012%20Disproportional%20control%20rights%20and%20the%20bonding%20role%20of%20debt.pdf>.
- Dimitrov, V., & Jain, P. C. (2006). Recapitalization of one class of common stock into dual-class: Growth and long-run stock returns. *Journal of Corporate Finance*, 12(2), 342-366.
- Dittmann, I., & Ulbricht, N. (2008). Timing and wealth effects of German dual class stock unifications. *European Financial Management*, 14(1), 163-196.
- Donnelly, R., & Mulcahy, M. (2008). Board structure, ownership, and voluntary disclosure in Ireland. *Corporate Governance: An International Review*, 16(5), 416-429.
- Ehrhardt, O., Kuklinski, J., & Nowak, E. (2005). Unifications of Dual-Class Shares in Germany: Empirical Evidence on the Effects of Related Changes in Ownership Structure. Market Value and Bid-Ask Spreads, Swiss Finance Institute, 06-12.
- Eng, L. L., & Mak, Y. T. (2003). Corporate governance and voluntary disclosure. *Journal of Accounting and Public Policy*, 22(4), 325-345.
- Fama, E. F., & French, K. R. (1997). Industry costs of equity. *Journal of Financial Economics*, 43(2), 153-193.
- Fan, J. P., & Wong, T. J. (2002). Corporate ownership structure and the informativeness of accounting earnings in East Asia. *Journal of Accounting and Economics*, 33(3), 401-425.
- Feldman, R., Govindaraj, S., Livant, J., & Segal, D. (2008). The Incremental Information Content of Tone Change in Management Discussion and Analysis. Available at SSRN: <http://ssrn.com/abstract=1126962> or <http://dx.doi.org/10.2139/ssrn.1126962>.
- Firth, M. (1979). The impact of size, stock market listing, and auditors on voluntary disclosure in corporate annual reports. *Accounting and Business Research*, 9(36), 273-280.

- Fishman, M. J., & Hagerty, K. M. (2003). Mandatory versus voluntary disclosure in markets with informed and uninformed customers. *Journal of Law, Economics, and Organization*, 19(1), 45-63.
- Flesch, R. (1948). A new readability yardstick. *Journal of Applied Psychology*, 32(3), 221.
- Forst, A., Hettler, B., & Barniv, R. (2014). Insider Ownership and Financial Analysts' Information Environment: Evidence from Dual Class Firms. Working Paper. Kent State University.
- Francis, J., Schipper, K., & Vincent, L. (2005). Earnings and dividend informativeness when cash flow rights are separated from voting rights. *Journal of Accounting and Economics*, 39(2), 329-360.
- Frazier, K. B., Ingram, R. W., & Tennyson, B. M. (1984). A methodology for the analysis of narrative accounting disclosures. *Journal of Accounting Research*, 22(1), 318-331.
- Fremgen, M. (1963) Review of Corporate Reporting and Investment Decisions by Cerf, A.R. *The Journal of Business*, 36(4), 465-467.
- Gelb, D. S. (2000). Managerial ownership and accounting disclosures: an empirical study. *Review of Quantitative Finance and Accounting*, 15(2), 169-185.
- Gilson, R. J. (1987). Evaluating Dual Class Common Stock: The Relevance of Substitutes. *Virginia Law Review*, 73, 807.
- Gompers, P. A., Ishii, J., & Metrick, A. (2010). Extreme governance: An analysis of dual-class firms in the United States. *Review of Financial Studies*, 23(3), 1051-1088.
- Griffin, P. A. (2003). Got information? Investor response to Form 10-K and Form 10-Q EDGAR filings. *Review of Accounting Studies*, 8(4), 433-460.
- Grossman, S. J. (1981). The informational role of warranties and private disclosure about product quality. *Journal of Law and Economics*, 24(3), 461-483.
- Grossman, S. J., & Hart, O. D. (1988). One share-one vote and the market for corporate control. *Journal of Financial Economics*, 20, 175-202.
- Gul, F. A., & Leung, S. (2004). Board leadership, outside directors' expertise and voluntary corporate disclosures. *Journal of Accounting and Public Policy*, 23(5), 351-379.
- Gunning, R. (1969). The fog index after twenty years. *Journal of Business Communication*, 6(2), 3-13.
- Hales, J. (2007). Directional preferences, information processing, and investors' forecasts of earnings. *Journal of Accounting Research*, 45(3), 607-628.

- Hales, J., Kuang, X. J., & Venkataraman, S. (2011). Who believes the hype? An experimental examination of how language affects investor judgments. *Journal of Accounting Research*, 49(1), 223-255.
- Han, J., & Tan, H. T. (2010). Investors' Reactions to Management Earnings Guidance: The Joint Effect of Investment Position, News Valence, and Guidance Form. *Journal of Accounting Research*, 48(1), 123-146.
- Hanson, R. C., & Song, M. H. (1996). Ownership structure and managerial incentives: the evidence from acquisitions by dual class firms. *Journal of Business Finance & Accounting*, 23(5-6), 831-849.
- Hauser, S., & Lauterbach, B. (2004). The value of voting rights to majority shareholders: Evidence from dual-class stock unifications. *Review of Financial Studies*, 17(4), 1167-1184.
- Healy, P. M., Hutton, A. P., & Palepu, K. G. (1999). Stock performance and intermediation changes surrounding sustained increases in disclosure. *Contemporary Accounting Research*, 16(3), 485-520.
- Heath, R. L., & Phelps, G. (1984). Annual reports II: readability of reports vs. business press. *Public Relations Review*, 10(2), 56-62.
- Hirst, D. E., Koonce, L., & Venkataraman, S. (2008). Management earnings forecasts: A review and framework. *Accounting Horizons*, 22(3), 315-338.
- Ho, S. S., & Wong, K. S. (2001). A study of the relationship between corporate governance structures and the extent of voluntary disclosure. *Journal of International Accounting, Auditing and Taxation*, 10(2), 139-156.
- Hoskins, R. L. (1984). Annual reports I: Difficult reading and getting more so. *Public Relations Review*, 10(2), 49-55.
- Hotchkiss, S. N., & Paterson, D. G. (1950). Flesch readability reading list. *Personnel Psychology*, 3(3), 327-344.
- Howe, J. S., & Tamm, C. (2011). Corporate Governance of Dual-Class Firms. *Advances in Financial Economics*, 14, 1-18.
- Hsieh, C. (2009, June). Disclosure vs. Disclosure Rankings: Quantitative Disclosure Characteristics and Analyst Ratings of Disclosure Quality. The Canadian Academic Accounting Association 2009 annual meeting: Accounting for governance and sustainable development, Montreal, Quebec, Canada.
- Imhoff Jr, E. A. (1992). The relation between perceived accounting quality and economic characteristics of the firm. *Journal of Accounting and Public Policy*, 11(2), 97-118.

- Ingram, R. W., & Frazier, K. B. (1983). Narrative disclosures in annual reports. *Journal of Business Research*, 11(1), 49-60.
- Jarrell, G. A., & Poulsen, A. B. (1988). Dual-class recapitalizations as antitakeover mechanisms: The recent evidence. *Journal of Financial Economics*, 20, 129-152.
- Jog, V. M., & Riding, A. L. (1986). Price effects of dual-class shares. *Financial Analysts Journal*, 42(1), 58-67.
- Jordan, B., Liu, M., & Wu, Q. (2012). Corporate Payout Policy in Dual-Class Firms. Available at SSRN: <http://ssrn.com/abstract=1985683> or <http://dx.doi.org/10.2139/ssrn.1985683>.
- Kabir, R., Cantrijn, D., & Jeunink, A. (1997). Takeover defenses, ownership structure and stock returns in the Netherlands: An empirical analysis. *Strategic Management Journal*, 18(2), 97-109.
- Karamanou, I., & Vafeas, N. (2005). The association between corporate boards, audit committees, and management earnings forecasts: An empirical analysis. *Journal of Accounting Research*, 43(3), 453-486.
- Kasznik, R., & Lev, B. (1995). To warn or not to warn: Management disclosures in the face of an earnings surprise. *The Accounting Review*, 70(1), 113-134.
- Khalil, S., Magnan, M. L., & Cohen, J. R. (2008). Dual-class shares and audit pricing: Evidence from the Canadian markets. *Auditing: A Journal of Practice & Theory*, 27(2), 199-216.
- Khurana, I. K., Raman, K. K., & Wang, D. (2013). Weakened outside shareholder rights in dual-class firms and timely loss reporting. *Journal of Contemporary Accounting & Economics*, 9(2), 203-220.
- Kim, I., & Skinner, D. J. (2012). Measuring securities litigation risk. *Journal of Accounting and Economics*, 53(1), 290-310.
- Ko, J., & Hansch, O. (2009). The Effect of Prior Beliefs and Preferences on Information Processing in an Investment Experiment. Working paper, Pennsylvania State University.
- Kothari, S. P., Li, X., & Short, J. E. (2009). The effect of disclosures by management, analysts, and business press on cost of capital, return volatility, and analyst forecasts: a study using content analysis. *The Accounting Review*, 84(5), 1639-1670.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108(3), 480.
- Laksmana, I., Tietz, W., & Yang, Y. W. (2012). Compensation discussion and analysis (CD&A): Readability and management obfuscation. *Journal of Accounting and Public Policy*, 31(2), 185-203.

- Lang, M. & Lundholm, R. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research*, 31(2), 246-271.
- Lang, M., & Lundholm, R., (1996). Corporate disclosure policy and analyst behavior. *The Accounting Review*, 71 (4), 467-492.
- Lee, K. W. (2007). Corporate voluntary disclosure and the separation of cash flow rights from control rights. *Review of Quantitative Finance and Accounting*, 28(4), 393-416.
- Lee, Y. J. (2012). The Effect of Quarterly Report Readability on Information Efficiency of Stock Prices. *Contemporary Accounting Research*, 29(4), 1137-1170.
- Lehavy, R., Li, F., & Merkley, K. (2011). The effect of annual report readability on analyst following and the properties of their earnings forecasts. *The Accounting Review*, 86(3), 1087-1115.
- Lench, H. C., & Bench, S. W. (2012). Automatic optimism: Why people assume their futures will be bright. *Social and Personality Psychology Compass*, 6(4), 347-360.
- Lench, H. C., Quas, J. A., & Edelman, R. S. (2006). My Child Is Better Than Average: The Extension and Restriction of Unrealistic Optimism. *Journal of Applied Social Psychology*, 36(12), 2963-2979.
- Li, F. (2008). Annual report readability, current earnings, and earnings persistence. *Journal of Accounting and Economics*, 45(2), 221-247.
- Li, F. (2010a). Textual Analysis of Corporate Disclosures: A Survey of the Literature. *Journal of Accounting Literature*, 29, 143-165.
- Li, F. (2010b). The Information Content of Forward-Looking Statements in Corporate Filings—A Naïve Bayesian Machine Learning Approach. *Journal of Accounting Research*, 48(5), 1049-1102.
- Li, K., Ortiz-Molina, H., & Zhao, X. (2008). Do Voting Rights Affect Institutional Investment Decisions? Evidence from Dual-Class Firms. *Financial Management*, 37(4), 713-745.
- Loughran, T., & McDonald, B. (2011). When is a liability not a liability? Textual analysis, dictionaries, and 10-Ks. *The Journal of Finance*, 66(1), 35-65.
- Loughran, T., & McDonald, B. (2014a). Regulation and financial disclosure: The impact of plain English. *Journal of Regulatory Economics*, 45(1), 94-113.
- Loughran, T., & McDonald, B. (2014b). Measuring Readability in Financial Disclosures. *The Journal of Finance*, 69: 1643–1671.

- Mahoney, J. M., & Mahoney, J. T. (1993). An empirical investigation of the effect of corporate charter antitakeover amendments on stockholder wealth. *Strategic Management Journal*, 14(1), 17-31.
- Mak, Y. T. (1991). Corporate characteristics and the voluntary disclosure of forecast information: a study of New Zealand prospectuses. *The British Accounting Review*, 23(4), 305-327.
- Makhija, A. K., & Patton, J. M. (2004). The Impact of Firm Ownership Structure on Voluntary Disclosure: Empirical Evidence from Czech Annual Reports. *The Journal of Business*, 77(3), 457-491.
- Malone, D., Fries, C., & Jones, T. (1993). An empirical investigation of the extent of corporate financial disclosure in the oil and gas industry. *Journal of Accounting, Auditing & Finance*, 8(3), 249-273.
- Masulis, R. W., Wang, C., & Xie, F. (2009). Agency problems at dual-class companies. *The Journal of Finance*, 64(4), 1697-1727.
- Maury, B., & Pajuste, A. (2011). Private Benefits of Control and Dual-Class Share Unifications. *Managerial and Decision Economics*, 32(6), 355-369.
- McConnell, J. J., & Servaes, H. (1990). Additional evidence on equity ownership and corporate value. *Journal of Financial Economics*, 27(2), 595-612.
- McGuire, S. T., Wang, D., & Wilson, R. (2014). Dual class ownership and tax avoidance. *The Accounting Review*, 89(4), 1487-1516.
- McLaughlin, G. H. (1969). SMOG grading: A new readability formula. *Journal of Reading*, 12(8), 639-646.
- McNally, G. M., Eng, L. H., & Hasseldine, C. R. (1982). Corporate financial reporting in New Zealand: an analysis of user preferences, corporate characteristics and disclosure practices for discretionary information. *Accounting and Business Research*, 13(49), 11-20.
- Means, T. L. (1981). Readability: An evaluative criterion of stockholder reaction to annual reports. *Journal of Business Communication*, 18(1), 25-33.
- Meggison, W. L. (1990). Restricted voting stock, acquisition premiums, and the market value of corporate control. *Financial Review*, 25(2), 175-198.
- Milgrom, P. R. (1981). Good news and bad news: Representation theorems and applications. *The Bell Journal of Economics*, 380-391.
- Morck, R., Shleifer, A., & Vishny, R. W. (1988). Management ownership and market valuation: An empirical analysis. *Journal of Financial Economics*, 20, 293-315.

- Nagar, V., Nanda, D., & Wysocki, P. (2003). Discretionary disclosure and stock-based incentives. *Journal of Accounting and Economics*, 34(1), 283-309.
- Nasir, N., Abdullah, S., 2004. Voluntary disclosure and corporate governance among financially distressed firms in Malaysia. *Financial Reporting, Regulation and Governance* 3 (1), 95-139.
- Nguyen, V. T., & Xu, L. (2010). The impact of dual class structure on earnings management activities. *Journal of Business Finance & Accounting*, 37(3-4), 456-485.
- Nikolaev, V. V. (2010). Debt covenants and accounting conservatism. *Journal of Accounting Research*, 48(1), 51-89.
- Niu, F. (2008). Dual-Class Equity Structure, Nonaudit Fees and the Information Content of Earnings. *Corporate Governance: An International Review*, 16(2), 90-100.
- Noe, C. (1995). *Management Earnings Forecasts and Insider Trading Activity*, University of Rochester. Dissertation.
- Parker, L. D. (1982). Corporate annual reporting: a mass communication perspective. *Accounting and Business Research*, 12(48), 279-286.
- Partch, M. M. (1987). The creation of a class of limited voting common stock and shareholder wealth. *Journal of Financial Economics*, 18(2), 313-339.
- Pashalian, S., & Crissy, W. J. (1950). How readable are corporate annual reports? *Journal of Applied Psychology*, 34(4), 244.
- Patton, J., & Zelenka, I. (1997). An empirical analysis of the determinants of the extent of disclosure in annual reports of joint stock companies in the Czech Republic. *European Accounting Review*, 6(4), 605-626.
- Penman, S. H. (1980). An empirical investigation of the voluntary disclosure of corporate earnings forecasts. *Journal of Accounting Research*, 18(1), 132-160.
- Previts, G.F., Bricker, R.J., Robinson, T.R., & Young, S.J. (1994). A Content Analysis of Sell-Side Financial Analyst Company Reports. *Accounting Horizons*, 8(2), 55-70.
- Rogers, J. L., Van Buskirk, A., & Zechman, S. L. (2011). Disclosure tone and shareholder litigation. *The Accounting Review*, 86(6), 2155-2183.
- Ruland, W., Tung, S., & George, N. E. (1990). Factors associated with the disclosure of managers' forecasts. *The Accounting Review*, 65(3), 710-721.
- Schroeder, N., & Gibson, C. (1990). Readability of management's discussion and analysis. *Accounting Horizons*, 4(4), 78-87.

- Securities & Exchange Commission [SEC]. Office of Investor Education & Assistance, (1998). A Plain English Handbook: How to Create Clear SEC Disclosure Documents. Available at <http://www.sec.gov/pdf/handbook.pdf>.
- Seybert, N., & Bloomfield, R. (2009). Contagion of wishful thinking in markets. *Management Science*, 55(5), 738-751.
- Shleifer, A., & Vishny, R. W. (1989). Management entrenchment: The case of manager-specific investments. *Journal of Financial Economics*, 25(1), 123-139.
- Shivakumar, L., Urcan, O., Vasvari, F. P., & Zhang, L. (2011). The debt market relevance of management earnings forecasts: Evidence from before and during the credit crisis. *Review of Accounting Studies*, 16(3), 464-486.
- Singhvi, S. S., & Desai, H. B. (1971). An empirical analysis of the quality of corporate financial disclosure. *The Accounting Review*, 46(1), 129-138.
- Smart, S. B., & Zutter, C. J. (2003). Control as a motivation for underpricing: a comparison of dual and single-class IPOs. *Journal of Financial Economics*, 69(1), 85-110.
- Smart, S. B., Thirumalai, R. S., & Zutter, C. J. (2008). What's in a vote? The short-and long-run impact of dual-class equity on IPO firm values. *Journal of Accounting and Economics*, 45(1), 94-115.
- Smith, B. F., Amoako-Adu, B., & Kalimipalli, M. (2009). Concentrated control and corporate value: a comparative analysis of single and dual class structures in Canada. *Applied Financial Economics*, 19(12), 955-974.
- Smith, E. D. (1976). The effect of the separation of ownership from control on accounting policy decisions. *The Accounting Review*, 51(4), 707-723.
- Smith, J. E., & Smith, N. P. (1971). Readability: A measure of the performance of the communication function of financial reporting. *The Accounting Review*, 46(3), 552-561.
- Smith, M., & Taffler, R. (1992). The chairman's statement and corporate financial performance. *Accounting & Finance*, 32(2), 75-90.
- Soper, F. J., & Dolphin, R. (1964). Readability and corporate annual reports. *The Accounting Review*, 39(2), 358-362.
- Subramanian, R., Insley, R. G., & Blackwell, R. D. (1993). Performance and readability: a comparison of annual reports of profitable and unprofitable corporations. *Journal of Business Communication*, 30(1), 49-61.

- Tennyson, B. M., Ingram, R. W., & Dugan, M. T. (1990). Assessing the information content of narrative disclosures in explaining bankruptcy. *Journal of Business Finance & Accounting*, 17(3), 391-410.
- Tetlock, P. C. (2007). Giving content to investor sentiment: The role of media in the stock market. *The Journal of Finance*, 62(3), 1139-1168.
- Tetlock, P. C., Saar-Tsechansky, M., & Macskassy, S. (2008). More than words: Quantifying language to measure firms' fundamentals. *The Journal of Finance*, 63(3), 1437-1467.
- Thayer, J. (2011). Determinants of investors' information acquisition: Credibility and confirmation. *The Accounting Review*, 86(1), 1-22.
- Tinaikar, S. (2014). Voluntary disclosure and ownership structure: An analysis of dual class firms. *Journal of Management & Governance*, 18(2), 373-417.
- Trueman, B. (1986). Why do managers voluntarily release earnings forecasts? *Journal of Accounting and Economics*, 8(1), 53-71.
- Wagenhofer, A. (1990). Voluntary disclosure with a strategic opponent. *Journal of Accounting and Economics*, 12(4), 341-363.
- Wallace, R. O., Naser, K., & Mora, A. (1994). The relationship between the comprehensiveness of corporate annual reports and firm characteristics in Spain. *Accounting and Business Research*, 25(97), 41-53.
- Wallace, R. S., & Naser, K. (1996). Firm-specific determinants of the comprehensiveness of mandatory disclosure in the corporate annual reports of firms listed on the stock exchange of Hong Kong. *Journal of Accounting and Public Policy*, 14(4), 311-368.