Control beyond warranted by the equity

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ABSTRACT

In this research we investigate the relationship between excess control and changes in asymmetric information during quarterly and annual earnings announcements. The focus remains on controlling shareholders possessing excess control within a dual-class share structure. We calculate changes in asymmetric information in an event study performed upon quarterly and annual report announcements using relative bid-ask spreads. Excess bid-ask spreads are calculated for three periods surrounding the announcement. Excess control is defined as the difference between fractional holdings of company votes and capital. Further, the relationship is measured within A-class and B-class shares respectively, taking into account four different investor categories. We also specifically control for compliance with the Swedish Code of Corporate Governance. The sample constitutes all companies listed on Nasdaq OMX Nordic during a five-year period form 2008 through 2012. Our results show that excess control has a reducing effect on levels of asymmetric information as measured by excess bid-ask spread in both A-class and B-class shares. When investigating the relationship within different ownership categories, the results indicate that excess control only has a mitigating effect on bid-ask spreads if the controlling shareholder is a founder family or non-family founder.

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1. Introduction

We examine the relationship between excess control possessed by a controlling shareholder within a dual-class share structure and changes in asymmetric information in the market around annual report announcements. Prior research finds that in most of Europe, corporations typically have a controlling owner representing the founder with a heavy ownership stake in the firm (Shleifer & Vishny 1997). In Sweden, large controlling shareholders tend to have a larger stake invested in company votes relative company capital. In this paper, a controlling shareholder with a larger fraction of company votes relative the fraction of company capital is referred to as a shareholder possessing excess control. These shareholders also been termed controlling minority shareholders (CMS), and the position of excess control is usually derived through a dual-class share structure or other corporate control enhancing instruments (Cronqvist & Nilsson 2000).

Share classes constitute a common element in the composition of company ownership structures, and are the only means by which shares can be distributed differential voting rights. In listed companies, share capital is allocated to individual shares through different classes issued by the company. Allocated according to some certain share class, the investor is distributed some class-specific shareholder right in the firm. The rights distributed distinguish the different share classes constituting the company shareholder structure. Voting rights allocate control and appear to be one of the most prominent rights distributed through shares with a potential to be as valuable to its investor as the right to receive dividends (Zingales 1994). The value of voting rights is derived from some unique private benefits perceived by the shareholder, or through competition to acquire those votes. In Sweden, the value of voting stocks have been shown to constitute 6,5% of the value of common stock (Rydqvist 1987).

Previous studies investigating excess control frequently circulate the phenomenon of controlling shareholders power to expropriate non-controlling shareholders, with the most extreme example being Korean *chaebols* (Amihund & Lev 1981). The complete discretion over company control makes it possible for owner-managers of chaebols to expropriate other investors in the firm by investing the firm's resources to maximize their welfare. In a more normal approach, shareholders possessing excess control are limited to perform expropriation activities only by the incentives not to engage in minority expropriation or by legal restrictions. Engaging in minority expropriation controlling shareholders, controlling shareholders free themselves from corporate governance mechanisms. Dealing with ways in which suppliers of finance assure themselves return on their investment, the phenomenon of excess control have come to be a great concern for corporate governance regulators. The Swedish Corporate Governance board promotes good corporate governance in the interest of shareholders and creates better conditions for the supply of capital (Swedish Corporate Governance Board). The possibility to advance against the increasingly applied norm[1] originates from the possibility to own more company votes relative company capital. Voting rights enhance control through discretion over corporate decisions on shareholder meetings.

The votes make it possible for controlling majority shareholders to influence strategic- and investment decision-making, through which they can maximize their own welfare if legal protection is weak. However, when legal systems are strong they have shown to be effective against minority expropriation, and also in supporting matters of corporate governance. Provided a well functioning legal enforcement on the Swedish market, as a suggestion minority expropriation should not be a matter of concern to minority investors in the market

[1] Obligated for companies listed on Nasdaq OMX Stockholm and NGM Equity

(La Porta et al., 1998). Despite evidence against a prospective desire of controlling shareholders (Bergström & Rydqvist 1990a)[2] to derive private benefits at the expense of minority shareholders' wealth, it appears as if there is a general distrust implemented in the market towards controlling shareholders possessing excess control. Applying the lemons model (Arkelöf 1970), this should create a rather difficult catch 22 for a controlling shareholder in a dual-class share structure turning to the equity market for risk capital financing. Given that minority shareholders don't have as much discretion over corporate decisions, they should protect themselves against a bad investment, being expropriated by the controlling shareholder, by offering a lower subscription price. In order to obtain a low cost of capital, the controlling shareholder must signal the value of the firm to its investors by owning a large capital fraction (Jensen & Meckling 1976). However, a setting of equal vote- and capital fractions would undermine the positive effects of a dual-class share structure. Further, it has been suggested that the classical principal-agent problem applies to the relationship between majority and minority shareholders with a dual class structure. Rather than pure expropriation such a relationship could as well constitute conflicts of interests (Cronqvist & Nilsson). However, it does not matter for the amount of resources that investors are willing to put up for financing if the conflicts of interests is in the form of expropriation or misallocation of funds, in both situations the investors will reduce the amount of capital for supply (Shileifer & Vishny 1997). What matters is that controlling shareholders' agenda is constrained, preventing inefficient decision-making (Hart 1995). Provided the Swedish corporate governance regulation matters, we argue that the agenda of a controlling shareholder possessing excess control is not just imposed with checks and balances on behaviour, it should also be incentivised through the constitution of the principle of "*comply or explain*" making it possible for outside investors to judge the level of corporate governance within a company against the norm of the Code.

As a result, we suggest that controlling shareholders within dual-class settings as of today should be incentivised to enhance their decision-making behaviour in order to attract minority shareholders as financiers. This implies that unless controlling shareholders are unable to communicate their future prospects credibility to investors, excess control should be have a mitigating impact on levels of asymmetric information in the market. Liquidity measures have previously been used as indicators of levels of asymmetric information, and in accordance to several previous studies we turn to the bid-ask spread (Yohn 1998; Kanagaretnam et al., 2007; Jiang et al., 2011). In order to test and measure for the prospective relationship, we believe an appropriate time period for investigating the ability of the controlling investor to master liquidity of the stock among (minority) investors in the firm should be during earnings announcements.

The logic reasoning behind our approach is that for a relationship between majority and minority shareholders to exist as a result of excess control, the ownership structures within each share class should represent controlling shareholders possessing excess control and minority shareholders, respectively. This means that controlling ownership should represent high vote shares and minority ownership should make up low vote shares. Provided that controlling shareholders should possess better information about firm prospects, it is suggested that they hold some superior information relative minority shareholders. This should be reflected as increased bid-ask spreads during earnings announcement, indicating a decrease in market liquidity (Kim & Verrecchia 1992). In order to capture the ability of the controlling shareholder to prevent the spreads to widen, we will derive excess bid-ask spreads

[2] Bergström and Rydqvist(1990a) showed that 48% of the companies investigated in 1986 held more than 50% of both votes and equity

conducting an event study during annual report announcements and measure the effect of excess control on changes on excess spreads (Gajewski & Bertrand 2013). Since the effect on the level of information asymmetry during earnings announcements have been shown to sustain during periods surrounding announcement days, we consider three event windows (Yohn 1998). Further, considering that the bid-ask spread is made up of the three components: order processing costs, inventory holding costs and adverse selection costs, we control for the first two cost components to solely account for changes in the adverse selection component (Krinsky & Lee 1996).

Consistent with the underlying assumption of different ownership structures within each share class, we perform an investigation for the suggested relationship between excess control and excess bid-ask spreads within each share class respectively. Taking into account that the Swedish market of controlling shareholders is characterized by different owner categories (Cronqvist & Nilsson 2000), we additionally perform test of the relationship between excess control and excess bid-ask spreads within four different investor categories of the respective share class. Finally, since the Swedish Corporate Governance board was set up in 2005 and made the Code of corporate governance applicable to all companies considered in this research in 2008, we specifically employ a set of corporate governance related control variables (Kanagaretnam et al., 2007).

Our findings reveal that excess control has a reducing impact on excess bid-ask spreads around announcements of annual reports. We find significant results for the relationship within both high- and low vote shares. Consistent with the underlying reasoning about different ownership structures within each share class, it appears as if high vote share holders benefit from excess control before announcement, and that low vote shareholders benefit from excess control on the day of announcement as well as during the days following the announcement. Further, our test shows that founder-family owners is the only investor category with effect on excess bid-ask spreads during announcement, and the relationship was consistent throughout the whole event period. Finally, we find that board members have a mitigating impact on excess bid-ask spreads within the high vote share class, and that dependency of audit members have an increasing impact on excess bid-ask spreads within low vote shares during earnings announcement. The results may be explained with that controlling owners benefit from insider information and as a result they take advantage of that and execute trades before announcement. Further, they appear to value the presence of board expertise considering their discretion over corporate decision-making. Low vote shareholders appear to benefit from the presence of excess control, but still suffer from less information about firm prospects, protecting themselves against informed traders before announcement, increasing the excess bid-ask spreads. Family owners may be more dependent upon minority shareholders as a source of external financing relative other investor categories, explaining why the results only reveal a relationship within that investor category. Lastly, new constitutions of corporate governance regulation appear to be of new concerns to minority shareholders.

The rest of the paper proceeds as follows. Section 2 reviews the findings of previous literature. Section 3 consists of the development of our testable hypotheses. Section 4 explains data sampling and related issues. It also presents descriptive statistics. Section 5 presents research methodology employed in the study. Section 6 shows our results. Section 7 provides analysis and discussion. Section 8 presents conclusions. Section 9 consists of variables. Section 10 consists of our appendix and section 11 consists of our references. Next follows a

review of central concerns related to a dual-class share structure and some additional background information:

1.2 Background information

Existing empirical research provides evidence of asymmetric information constituting a ground for problems related to agency theory an adverse selection on financial markets related to ownership concentration as a result of deviations between company vote- and cash flow rights. This study investigates information asymmetry using the bid-ask spread of a particular stock and hypothesizes a negative association between excess control and excess bid-ask spreads.

1.2.1 Agency Theory

The essence of agency theory is concerned with two problems within agency relationships. The first problem consists of the desire of different goals and the difficulty in verifying actions performed by the agent. The second problem consists of that the principal and the agent may prefer different actions as a result of different attitudes towards risk (Eisenhardt 1989). The problem of conflicting interests between the decision authorities of finance and management is usually related to that managerial investment decisions reflect personal interests rather than interests of investors. Substantial minority ownership stakes have been shown effective in overcoming conflicts between managers and shareholders. They are incentivised enough by their entitlement to the firm through a large ownership stake to collect information and monitor the management (Healy & Palepu 2001; Bergström & Rydqvist 1991). Further, such an investment provides the shareholder with enough voting rights to put pressure on the manager (Shleifer & Vishny 1997). As a result, large shareholders have been shown to emphasize the agency problem with their general interest in profit maximization and have enough voting rights to possess control over firm assets and have their interests respected. However, crucial for the large investor to be able to govern by exercising voting rights is protection of the voting mechanism. This is usually only a concern if legal protection is weak (Shleifer & Vishny 1997). Further, corporate governance mechanisms have been shown to effectively guide managers. The mechanisms relate to effective board work, effective committees and active shareholders. This puts pressure on the managers to act in the interests of its shareholders (Karamanou & Vafeas 2005).

1.2.2 Adverse selection

Another important concept associated with asymmetric information is adverse selection. Due to costs of dishonesty, the average value of goods tends to go down when the market is characterized by asymmetric information (Arkelöf 1970). The most common example capturing the essence of the problem is the market of used cars, where the buyers don't know if the car they will by is a good car or a lemon. The seller has a good idea about the quality of the car, to which the buyer will protect himself by discounting its price. We extend this phenomenon to the stock market, and considering rationality among minority shareholders it appears as if controlling shareholders possessing excess control face a great risk of discounts to its equity capital when rising financing in the market place (Leland & Pyle 1977; Jensen & Meckling 1976).

1.2.2 Excess control and private benefits

In a position of excess control it is suggested that shareholders are incentivised to derive private benefits from control (Shleifer & Vishny 1997). Due to its larger amount of high vote shares, the shareholder derives benefits from control by treating themselves preferentially at the expense of other shareholders through their discretion over corporate decision-making. As a result the firm is exposed to inefficient investment behaviour revealing negative effects on

returns to capital investments. For this reason, a shareholder possessing excess control is said to be able to redistribute wealth between majority and minority shareholders. This is called expropriation of minority shareholders that we have provided some brief information about above. The negative effects on returns to capital investment associated with excess control have been shown to be associated with a lower firm value and return on assets (Cronqvist & Nilsson 2000). In addition to private benefits derived at a direct expense of minority shareholders, it has been shown that some controlling shareholders derive private benefits related to the position of control as such. These kinds of benefits consist of social prestige and status and also impose a negative effect on returns to capital investments as a result of inefficient decision-making behaviour of the controlling shareholder (Schöldström & Wattsgård 2010). This implies that the possibility to derive private benefits stems from the same setting of excess control possessed by the controlling shareholder. However, the actual factors associated with the inefficient investment behaviour have shown to be related to different characteristics the specific shareholder in control. Family owners are associated with a lack of management skills and tend to hang on to their positions of control to long, implying that the investment policy tend to become inefficient (Cronqvist & Nilsson 2000; Carl Oreland 2005). Further, families are also associated with for desire of social prestige and status related to the position of control. However, rather than due to lack of skills it is suggested that control is prioritized over returns. This is reflected in an investment policy where capital is retained rather than invested and new equity offerings are surrounded by reluctance (Schöldström & Wattsgård 2010).

1.8 The dual class shareholder structure today

As of today, we believe it is time to let go of discrepancies related to risks beared by minority shareholders as of dual share class structures. We argue that it is of greater concern for the controlling shareholders, possessing excess control within the structures, to act in the interests of potential capital investors to attract financing. Lately, previous findings have proposed and recommended the importance of corporate governance. We discuss corporate governance associated with excess control and the potential for the alternative approach of regulation to overcome risks associated with excess control.

Provided that legal environments shape the conditions of the possibility to derive private benefits of control at a direct expense of minority shareholder wealth (La Porta et al., 2000), we suggest that the development of regulation and norms for a higher level of corporate governance should have a positive effect on private benefits that cannot be explicitly forbidden. The example we find most prominent of potential for such improvement is "*The Swedish Code of Corporate Governance*" [3]. Companies whose shares are traded on Nasdaq OMX Stockholm market and on NGM Equity market are obligated to apply he code. The Code constitutes a norm for higher levels of corporate governance and is made up of a set of recommendations. Related to the recommendations are disclosure requirements to be included in a separate corporate governance report. However, companies are not required to obey to all recommendations at all points in time. Through its "*comply or explain*" principle companies are allowed to deviate from the recommendations provided that they disclose an explanation such an action, the reason for alternative approach and the details of a different setting. The nature of the Code makes it possible for minority shareholders to benchmark company specific level of corporate governance against the norm as well as against each other. The conditions should make minority shareholders better able to evaluate the risks associated with investments in listed firms, and have a positive effect on corporate transparency. This should

[3] http://www.corporategovernanceboard.se/about-the-board, the board was set up during spring 2010

put some additional pressure on controlling shareholders considering a potential competition among controlling shareholders to attract investors.
Further, along with the increased accessibility of stocks on the Swedish market, we argue that controlling shareholder should realize their dependency on minority shareholder as an alternative source of external financing. In this sense, we propose an opposite view of the previous hypothesis of risks born to minority shareholders in the presence of a controlling shareholder possessing excess control. Rather, we argue that controlling shareholders should be faced with a risk of competition in the process of attracting minority shareholders as potential financiers. Further, we believe that it is reasonable to expect that controlling shareholders will make sound decisions as minority shareholders are able to turn their back those companies who are not possessing high enough levels of corporate governance desired by the minority shareholder.
Looking into different categories of controlling shareholders, we also expect their characteristics as owners to affect their incentives and applied strategies towards attracting minority shareholders in the capital market. Due to previous findings of family owners as frequent controllers in dual-class share settings (Cronqvist & Nilsson 2000; Anderson et al., 2009), we expect family owners to be more incentivised relative other shareholder categories to attract minority shareholders as financiers.

Considering a prospective mutual dependency relationship between majority- and minority shareholders in a dual-class share structure, we raise the question if problems associated with excess control should not be mitigated. Perhaps there is a chance that forthcoming, the dual-class share structure eventually will constitute a rather optimal shareholder structure.

1.9 Purpose

The purpose of this research is to investigate if excess control possessed by a controlling shareholder in a dual-class share structure *affects* changes in levels of asymmetric information during quarterly and annual earnings announcements.

1.10 Contribution

This research is the first attempt we know of that investigates the relationship between excess control and excess bid-ask spreads during earnings announcements, employed on dual-class share structures. The study aims, however, at a rather different approach from previous findings related to excess control possessed by controlling owners.
The contribution involves a clarification of the incentives of a controlling shareholder possessing excess control, and the *effect* of those incentives on excess bid-ask spreads during earnings announcement. This involves a better understanding for the risks (and benefits) associated with investments in a dual-class structure in the presence of a controlling shareholder possessing excess control.
Considering that high vote shares to a greater extent should be represented by controlling shareholders and that low vote shares to a greater extent should represent minority investors, we contribute with and investigation of the ability of controlling shareholders to master stock liquidity under such kind of ownership concentrations within different share classes throughout the same firm. According to the Leland-Pyle model previously mentioned, mastering problems of stock liquidity taking into consideration the potential lemon problem between controlling shareholders and minority shareholders in a dual class share structure should be rather difficult. This stems from the fact that a controlling shareholder possessing excess control has a larger fraction of company votes relative fraction of company capital. Mastering stock liquidity with a smaller fraction of company capital should, according to the model, be rather against the odds since minority shareholders take equity holdings of the controlling shareholder as a signal for if the firm is a good or a bad firm, and a signal for if the

value of its investment will be maximized. Mastering stock liquidity in such a setting also means mastering a matter of adverse selection considering that controlling shareholders may have information about the firm that outside shareholders don't have.
Investigating the relationship in the respective share class, we also contribute with an understanding for ownership structure in a dual-class share setting, and how the effect of excess control on excess bid-ask spreads differs dependent upon ownership structures in high and low vote shares.
Taken together, the findings will allow us to conclude if the dual-class share model constitutes a somewhat optimal ownership structure for both majority- and minority shareholders in the sense that it masters several implications of asymmetric information, great risks face by investors with investments in the market.

The research should also be of great concern to regulators of the Swedish Code of Corporate Governance. We contribute with its matter for shareholder value and functioning of a financial system in the presence of controlling shareholders possessing excess control within a dual class-share structure. We also contribute with the ability of controlling shareholders to master these problems with current regulation. Further, it should provide regulators and investors with an understanding for the functioning of current minority shareholder risk protection associated with an investment in a dual-class share structure. We should also support the need for good corporate governance regulation as an alternative means to direct legislation within financial markets.

2. Empirical framework

Asymmetric information constitutes some financial investment related issues, and most commonly the problems are studied in the context of the principal-agent theorem. Corporate managers are the agents of shareholders, and managers have incentives to cause their firms grow beyond the optimal size. Conflicts of interests arise when the agent have interests that deviate from principal's interests, and to prevent such actions of agency costs firms usually issue debt to reduce cash flow available for spending at the discretion of managers (Jensen 1986). Another concern related to agency theory is the problem of risk sharing. The principal and the agent may have different risk preferences with implications for their risk attitudes, and as a result they may prefer different actions (Eisenhardt 1989).
Asymmetric information can also be studied in the context of adverse selection, where imbalances of power in transactions run a risk of creating a market of lemons. The phenomenon derives from difficulty of potential buyers to verify the quality of the product they are offered (Akerlöf 1970). The problem of lemons applies to the equity market as a lower subscription price paid by minority shareholders to controlling shareholders for financing (Jensen & Meckling 1976). It has also been shown that problems of lemon can be overcome by large shareholdings. In a study of an entrepreneur seeking capital from outsider investors, the willingness of outside shareholders to pay for their share increased with the personal investment stake by the entrepreneur (Leland & Pyle 1977).
In our study, focus remains on asymmetric information as such, and its relationship to excess control in dual-class share holdings.

Associated with a dual-class share structure is commonly ownership concentration. Ownership concentration has been shown to influence the risks born to minority shareholders. Anderson et al., (2009) investigated concerns of ownership concentration through divergences in ownership versus control in the presence of founders and heirs. They found that the level of

financial transparency in such an ownership structure is crucial for firm performance, and that firm environments of less transparent nature are related to worse firm performance. Corporate transparency has been shown to be a great concern for investor protection through its preventing effects on agency costs between large shareholders and minority shareholders (Lang et al., 2004) and can be diminished through some restricted information flow on firm activities. The ownership structure has been shown to have an impact of voluntary information disclosure practices. Related to concentrated ownership structures, Jiang et al., (2009) found that when concentration within certain ownership category is associated with information asymmetry, corporate disclosure has a strong reducing impact on the perceived levels of information asymmetry among investors. Further, Chen et al., (2007) found that family owners influence such information disclosure practices to a larger extent relative other investor categories. It is also shown that voluntary information disclosures are important to the perceived content and credibility of earnings announcement information. Gajewski & Quéré (2013) demonstrated that perceived credibility of the earnings information content upon announcement has implications for changes in levels of information asymmetry. Further, disclosure of information to the public has been shown to increase the demand for firm securities of large investors. This stems from the fact that the liquidity of the firm securities is positively affected by information disclosure. As a result of the increased demand for securities, companies derive a lower cost of capital (Diamond & Verrecchia 1991).

Provided that voluntary information disclosure reduces information asymmetry associated with ownership concentration (Jian et al., 2011), information disclosure activities should be of great concern to minority investors. However, while information disclosure policies tend to remain a matter of individual corporate governance perceived at the firm level (Ajinkya et al,. 2005), a broader perspective on corporate governance shows that legal systems have an impact on corporate governance practiced by individual firms. This stems from the fact that firms have to adapt to the limitations of the legal systems that they operate within (La Porta et al., 1998). Rules within legal jurisdictions come from different sources and serve an important matter of investor rights protection, especially considering shareholders as financiers of different firms. Some of these rights include disclosure and accounting rules, and an efficient enforcement of such investor rights are crucial to the functioning of external financing mechanisms (La Porta et al., 2000).

Looking into the effect of excess control possessed in a dual-class share structure on changes in levels of information asymmetry around earnings announcement, we approach excess bid-ask spread. Quoted bid-ask spreads are considered to constitute three components: order-processing costs, inventory holding costs and adverse selection costs. The adverse selection component varies as a result of the implied information asymmetry among shareholders around earnings announcement, and has been shown to increase significantly around earnings announcement. Inventory holding costs and order processing costs on the other hand, has been shown to decrease during the same periods. As a result, the net effect on the total bid-ask spread from earnings announcement depends on which of these effects is more pronounced (Krinsky & Lee 1996). It has also been shown that in addition to the bid-ask spread's adverse selection component, the size quotes reveal several market characteristics that that cannot be inferred alone by the approach of the adverse selection component in the bid-ask spread As a result, quoted depths should be a better indicator of market liquidity relative bid-ask spreads (Steven & Pradipkumar 1996). However, approaching a measure of changes in the level of information asymmetry, depth is considered to be an appropriate complement to the adverse selection component of the bid-ask spreads (Dupot 2000; Gajewski & Quére 2013). In order

to solely account for changes in the information asymmetry component of the bid-ask spread, we control for inventory holding costs and order processing costs in our regressions.

Abnormal levels of information asymmetry have been shown to persist some days around the event of announcement. In order to better capture the entire effect from excess control on changes in levels of asymmetric information, a pre-disclosure period well as a post-event period should be included (Yohn 1998; Atiase & Bamber 1993; Krinsky & Lee 1996). Previous research has also shown that the level of information asymmetry is associated with the availability of public information. Common proxies for availability are firm size and the number of analysts (Yohn 1998). The number of analysts have also been shown to reduce information asymmetry associated with ownership concentration (Buyn et al,. 2011). Further associated to changes in abnormal levels of information asymmetry around announcements is the quality of possessed corporate governance within a firm. Kanagaretnam et al., 2007 showed that firms with stronger corporate governance have smaller changes in information asymmetry around quarterly earnings announcements. The Swedish board of corporate governance makes attempts to increase levels of possessed corporate governance by listed companies. They have issued a norm for good corporate governance known as "The Swedish Code of Corporate Governance". It is not required for listed companies to apply the recommendations in the norm, however aims at increasing the ambition level for performance of corporate governance through its appliance in within companies.

Investors are protected by regulation through a variety of settings with rules stemming from company, security, bankruptcy, takeover and competition laws (La Porta et al., 2000). In 2005 a new form of investor protection was developed, and by 2008 the recommendation applied to all Swedish listed companies. It is known as the "The Swedish Code of Corporate Governance" and was issued by the Swedish board of governance. It comprises an alternative to Swedish legislation in the form of self-regulation through its comply or explain principle, and puts pressure on listed companies to perform a higher ambition of corporate governance. As the regulation of financial reports provides new and relevant information to investors (Healy & Palepu 2001), the code suggests a potential improvement in excess bid-ask spreads, implying positive effects on level of asymmetric information.

3. Hypotheses development

Changes in the information asymmetry component of the bid-ask spread around earnings announcements represent a risk of dealing with traders who possess superior information (Krinsky & Lee 1996). As opposed to previous findings revealing that different classes of ownership concentration is positively associated with bid-ask spreads (Jiang et al., 2011; Buyn et al., 2011; Anderson et al., 2009), we hypnotize that excess control possessed in a dual-class share structure has a reducing impact on excess bid-ask spreads around announcements of annual reports.

Hypothesis 1: There is a negative association between excess control possessed by controlling shareholders within dual-class share structures and excess bid-ask spreads around announcements of quarterly and annual reports.

We hypothesize that excess control has a reducing impact on excess bid-ask spreads around earnings announcement within both high- and low vote share classes. However, the hypothesis is conditioned on the ability of the controlling shareholder to communicate future prospect credibility to minority shareholders (Brennan & Kraus 1987). Provided evidence that

the extent of capital holdings have proved to signal the controlling shareholder's willingness to invest in the firm on his own behalf (Leland & Pyle 1977), this might be a difficult approach considering that the controlling shareholders in this study are subject to a position of excess control in which their stake in equity is always smaller than their stake in company votes.

Hypothesis 2: The negative association between excess control possessed by controlling shareholders within dual-class share structures and excess bid-ask spreads around announcements of quarterly and annual reports holds for both high- and low vote shares.

Further, in disagreement with related literature providing evidence of family owners as a frequent owner category deriving private benefits from control (Schöldström & Wattsgård 2010) with a tendency to disclose less accurate information and possess poor management skills (Chen et al., 2007; Carl Oreland 2005), we expect excess control to have a larger reducing impact on excess bid-ask spreads around announcements of annual reports relative other shareholder categories. Consistent with other previous findings revealing that family owners tend to be frequent controllers in dual-class share settings (Cronqvist & Nilsson 2000; Anderson et al., 2009), we expect family owners to be more incentivised relative other shareholder categories to attract minority shareholders as financiers.

Hypothesis 3: The negative association between excess control possessed by controlling shareholders within dual-class share structures and excess bid-ask spreads around announcements of quarterly and annual reports is larger for family owners relative other owner categories.

Previous studies have shown that firm possessing stronger corporate governance have smaller changes in their bid-ask spreads around earnings announcements (Kanagaretnam et al., 2007). In accordance with these findings we believe that the same reasoning holds for the firms included in this research. However, the extent to which companies comply with the code is subject to variation due to the principle of "comply or explain". For this reason we find it accurate to investigate what rules comprised by the Code controlling- and minority shareholders find important in the respective share class. We have included control variables capturing the effect of board activity, board independence and board structure. As a result, we expect significant results for the coefficients of those variables shareholders consider constituting important attributes of firm level corporate governance.

Hypothesis 4: Significant coefficients for corporate governance related variables reflecting important attributes of corporate governance to shareholders within the respective share class.

Provided that shareholders possessing company influence do not have as much discretion over corporate decision-making, they should not feel as big pressure to enhance their decision-making not constituting the determining force of investment decisions. As a result, excess control possessed by influential shareholders should make the overall enhancement of corporate decision-making less efficient relative when only controlling shareholders possesses excess control.

4. Data sampling and collection

The study covers a five-year sample period from 2008 through 2012. Data have been collected from SIS Ägareservice AB and Nasdaq OMX Nordic for all companies listed on

Nasdaq during the defined sample period. Ownership data is collected during the dates from 2007-12-31 through 2012-06-30 and consists of the relative vote- and capital fractions for the 20 largest shareholders in every firm. In order to better account for changes in the ownership structure throughout the fiscal year of companies included in the sample, we have chosen to collect data on ownership structure on a semi-annual basis. This will allow for better estimates of excess controlling owners at the time of announcement for every firm considering differences in the respective fiscal year of the firms included. Market data have been collected for trading days during form 2008-01-01 through 2013-06-30. The announcement days of earnings reports pertaining to the respective fiscal years are lagging behind, stretching out the period during which the data needs to be collected.

Even if the initial communication upon announcement sometimes is limited, it makes up a good time to investigate investor reactions. It can most certainly be assumed that investors anticipate all announcements beforehand, considering the common release of publications dates within Swedish firms. Transaction prices are available on a daily trading-date basis and the variables consist of closing daily quote driven market prices. It is suggested by Gajewski & Quèré (2013) that intraday trading data would have been preferable for our study, however due to the unavailability of intraday variables we apply closing day data. The variables collected for the each share class are: bid-price, ask-price, closing-price, high-price, low-price, average price, trading volume, trading turnover and the number of trades executed. Further we collect information of nine board variables form company annual- and corporate governance reports The variables collected for the board and the audit committee respectively are: the number of meetings, the members, the number of members dependent on the company and the number of members dependent on majority shareholders. The variables represent some of the recommendations included in the Swedish Code of Corporate Governance and have also been used in previous studies (Kanagaretnam et a., 2007).
We have collected the dates of quarterly and annual earnings announcements from press and computer networks. The number of analysts following each firm has been noted at the time of data collection and is used as a proxy for analyst following throughout the sample period.

Our study focus on dual-class shares as of high vote (A) shares and low vote (B) shares. This is the most commonly applies approach by Swedish companies. However, in order to account for the possibility of a different voting rights distribution through some other combination of share classes relative the setting approached in this study, we have downloaded stock price data within all share classes available. Due to the few number of companies using different share classes, we have reclassified these classes according to their similarity with A- and B-shares[4].

4.1 Potential data bias and issues

The main concern with our results in this study relate to the exclusion of factors in our data set that potentially determines the variables we have collected on firm-level corporate governance activities. Previous research finds that governance variables depend on firm-specific factors such as policies of managerial labour or corporate control. Other factors that have been shown to determine the extent to which firms engage in corporate governance activities relates to characteristics of the environment in which the firm is operating, for example volatility in the operating environment and imposed regulation (Demsetz & Lehn 1985). This implies that our results regarding governance activities and its impact on levels of

[4] Swedbank high vote (A) shares reclassified into low vote (B) shares; Doro high vote (A) shares reclassified into low vote (B) shares; Hufvudstaden high vote (C) shares reclassified into high vote (A) shares; Industrivärden low vote (C) shares reclassified into low vote (B) shares

information asymmetry as measured by excess bid-ask spread could be endogenous. It has also been found that firm-level corporate governance tend to remain unchanged over time. This problematic interpretation of such findings concerning our study is that corporate governance regulation[5] could have a strong explanatory power of the extent to which the firms included in our data set employ governance variables serving as controlling variables in the examination of a relationship between excess control and levels of information asymmetry. Considering that we also make one hypothesis regarding the explanatory power of the governance variables included on excess bid-ask spreads, those variables may not have as much statistical power as indicted by our results.

4.2 The dependent variable

In line with several studies, we apply the spread as a measure of the level of information asymmetry around earnings announcements (Kanagaretnam et al., 2007; Gajewski & Quèré 2013). Despite the fact that depth is more sensitive to information asymmetry than spread (Dupont 2000), there is a general consensus on the spread as a good proxy for information asymmetry.

The spread constitutes a measure of market liquidity, which makes it a good indicator of potential inconsistencies in the levels of information obtained by shareholders in the market. According to the efficient market hypothesis, stock prices instantly incorporate all available information. Investigating the effect of information release upon earnings announcement, it should be of great concern the amount of public information released upon announcement as well as the extent of available corporate information on a general basis. Using the excess bid-ask spread as an indicator of the level of information asymmetry perceived by shareholders, we would expect to see greater excess spreads when less corporate information is being announced. The ask price represents the price at which the seller is willing to sell and the bid price represents the price at which the buyer is willing to buy. The daily bid-ask spread is calculated as the difference between the two. The bid-ask spread is later used to calculate the relative bid-ask spread.

$$\text{Bid– Ask spread} = \text{Bid} - \text{Ask}$$

$$\text{Relative Bid- Ask spread} = \text{Bid} - \text{Ask} \,/((\text{Bid} + \text{Ask}) \,/\, 2)$$

4.3 The explanatory variable

We define excess control as of shareholders possessing control within a firm. It is not of our concern how the controlling fraction of votes is determined (Bergström & Rydqvist 1990a). This means that the level of control is determined as of the fractional vote holding of every investor independent of relative class share holdings. As a definition for control we impose a minimum level on the fractional vote holding of $\geq 25\%$. However, a controlling shareholder can either constitute several block holders or consist of an individual shareholder. Block holders are investors with a vote fraction of $\geq 5\%$ classified into the same investor category. The vote fractions of block holders exceeding 5% are summarized within every investor category. It constitutes a controlling shareholder if the total vote fraction exceeds 25%. Excess control is only calculated for firms with two share classes. In absence of a controlling shareholder we account for the ownership structure as dispersed.

[5] The Swedish Code of Corporate Governance was made appliclable to all listed companies in 2008 and revised in 2010

Four different categories of investor categories are considered in this research. These are family founder, non-family founder, corporation and financial institution (Schöldström & Wattsgård 2010; Cronqvist & Nilsson 2000). Due to the high presence of family owners possessing company control in Swedish listed firms, we find it necessary to take into account different investor categories in order to gain a deeper understanding of the effect of excess control on information asymmetry. Previous findings on family owners as a rather distinctive investor category relative other investor categories in the position of excess control also motivate an ownership classification (Oreland 2005; Chen et al., 2007).

4.4 Control variables

Taking into account the broadening application of the Swedish Code of Corporate governance[6] when investigating levels of information asymmetry around earnings announcements is in line with the rationale that firms with higher levels of corporate governance possess lower levels of information asymmetry. It is also a concern for investigation of potential effects of this newly implemented form of regulation for information asymmetry among listed companies. We have structured the empirical analysis based on nine explanatory variables rather than relying on a single variable representing appliance. This should be an appropriate approach considering the principle of "*comply or explain*", enabling us to capture the degree of compliance with code recommendations among different firms included in our data set. The variables employed have previously been used to capture board independence, board structure and board activity (Kanagaretnam et al., 2007).

Due to the obligation of appliance and requirements of compliance disclosure, we believe that the Code induce pressure on controlling shareholders to act in the favour of all shareholders in the company, making it harder to derive all kinds of private benefits from control. The Swedish board of corporate governance constitutes a fairly new develop complement to Swedish legislation. The board was set up during spring 2005, and the Code was introduced to major stock exchange listed companies in 2005[7]. It was made applicable to all companies whose shares are traded on Nasdaq OMX Stockholm and NGM Equity in 2008[8]. Further, a revised form of the code came into force in 2010[9]. The code constitutes a principle of "*comply or explain*". This means that firms obligated to comply with the code are not required to comply with all rules included. Considering the distinguished nature of the rules in the Code, and the fact that companies may apply to the once they find suitable, we believe it is crucial to take into account the specific rules that certain companies with controlling shareholder comply with.

In order to refine the changes in the spread to only illustrate changes in the adverse selection component, we control for inventory holding costs and order processing costs. This is done by including as control variables the number of trades, stock volatility, trading volume and the stock price (Yohn 1998; Krinsky & Lee 1996). The effect is further neutralized in accordance with the setting of Gajewski & Quèré (2013) by measuring the relative abnormal bid-ask spreads rather than as measured by a raw number. Stock volatility is calculated as the standard deviation of stock returns, where stock returns also are calculated on closing prices. In order to calculate excess bid-ask spreads we perform an event study explained in more detail later on.

[6] http://www.corporategovernanceboard.se/about-the-board
[7] 1st July 2005
[8] 1st of July 2008 http://www.corporategovernanceboard.se/the-code
[9] 1 st of February 2010

We employ additional control variables that may affect the bid-ask spread. Previous studies have found public information to be of great importance to the level of information asymmetry possessed by a company (Gajewski & Quèré 2013; Anderson et al., 2009; Jiang et al., 2011). As a result, we control for the availability of public information in line with Yohn (1998) by using as proxies firm size and the number of analysts following the firm. It has also been shown that high vote shares tend to increase the concentration of the ownership structure. Analysts are associated with a decrease in levels of information asymmetry in concentrated ownership structures (Jiang et al., 2011). This implies that including analysts as a control variable not only proxies for information availability in general, it also controls for information asymmetry due to ownership concentration.

5. Methodology

The method is made up of two parts. In the first part of our research we perform an event study to derive our dependent variables. The dependent variable consists of excess bid-ask spreads in A- and B-shares, calculated in three event windows around annual report announcements. In the second part of our method, we perform regressions to test for a causal relationship between excess control and excess bid-ask spreads in A-and B-shares respectively.

5.1 Event study

An event study relies on three initial assumptions (MacKinlay 1997). The event is anticipated to consist of new, unanticipated information immediately incorporated into stock prices where market participants are assumed to possess skills necessary to correctly interpret information revealed from an event. Further, factors surrounding an event are assumed to remain constant. Earnings announcements are publications through which investors update their information about firm prospects, enabling them to make further interpretations about future firm performance. Conducting an event study we are able to assess the impact of excess control and corporate governance on changes in levels of asymmetric information reflected in the changes excess bid-ask spreads around earnings announcements.

Considering the definition of excess control, vote fraction-capital fraction, we assume that there is a high concentration of controlling owners within A- shares. As a result we also assume that minority shareholders represent a larger part of the ownership structure in B-shares. Provided that controlling shareholders have greater discretion over corporate decisions, we also expect them to possess a generally higher level of understanding for the business performed. As a result these investors should be process information upon announcement faster relative low vote investors. Further, being involved in corporate decisions to some larger extent also implies that the information released upon announcement should not reveal much of news to controlling shareholders. This implies that the excess spreads should be lower for A-shares.

As a result, the event study is performed in order to derive differences in excess bid-ask spreads observed within A- and B shares around earnings announcements. Aiming at identifying the effect of excess control on levels of asymmetric information within different share classes, the event study is a useful tool in measuring divergent reflections.

The event study is made up of one estimation window and three event windows surrounding each and every announcement. Only trading days make up the relative days of the study. The announcement date is defined as the day when the quarterly and annual reports are

announced. We do not consider the effects in separate earnings announcements, rather we look upon the impact on earnings announcements in general.

The estimation window is made up of the average quoted bid-ask spread during a period of 26 trading days prior every announcement date (t = -26; -1). The event windows make up the announcement date, a pre-disclosure period (t = -1) and a post-announcement period (t = +1; +5). Provided that the release of information upon announcement is not incorporated by all investors at the time of announcement, meaning that investors interpret information dependent on their assessment skills leading to a lagging effect of excess bid-ask spreads (Yohn 1998; Atiase & Bamber 1993; Krinsky & Lee 1996), we should be better able to capture the effect of excess control on excess bid-ask spreads by extending the event window to make up for a post-event period covering 5 days following announcement. The event windows constitute the respective daily quoted bid-ask spreads.

An excess bid-ask spread is calculated during the three event windows in both share classes by subtracting the normal spread from the actual spread:

$$\text{Excess bid-ask spread pre-disclosure}_{t-1} = \text{Actual spread} - \text{Benchmark}$$
$$\text{Excess bid-ask spread event}_{t} = \text{Actual spread} - \text{Benchmark}$$
$$\text{Excess bid-ask spread post-event}_{t\,1;\,5} = \text{Mean (Actual spread} - \text{Benchmark)}$$

5.2 Panel methods

The research question involves following companies included in the sample over a five-year period. This involves a risk of that other unobserved factors not included in the data set are correlated with the included explanatory variables. These variables may not to be exactly constant, but they might be roughly constant over the sample period. For this reason we find it useful to apply a fixed effects model in the regression analysis (Wooldridge 2009 p.457). Further we test invariant factors running the F-test and for firm-specific time invariant running the LaGrange multiplier (LM) test. The results revealed that the null hypothesis was rejected in both tests, and in order to determine the appropriate model for our panel we also did a Hausman test. Rejecting the null hypothesis means that the fixed effects model is preferable. We also ran a robustness test. The corporate governance variables were replace with a dummy variable for code appliance. Further, the proxy for company size was replace with belongingness to small cap, mid cap or large cap on Nasdaq OMX Nordic. Results can be found in the appendix.

5.3 Regressions

In line with the results of the tests performed on our panel data structure, we perform fixed effects regressions. The regressions are performed separately for A- and B share classes. Separating the investigations should reveal some interpretation of the effect from excess control on levels of asymmetric information within different share classes during earnings announcement. Further, all regressions are performed on three dependent variables derived in the event study, representing the excess bid-ask spread in three periods around every announcement.

Together, the regression analysis should reveal implications of excess control for levels of asymmetric information in different periods and to different extents during earnings announcements in different share class categories.

We begin by regressing the average excess control of controlling shareholders on excess bid-ask spreads derived in the event study without concern for specific ownership categories. In this way we aim to establish a general effect of excess control on levels of asymmetric information. In a second step we perform separate regressions for different investor categories by deriving excess control obtained by the largest controlling shareholder within each investor category. The excess control is regressed on the excess bid-ask spreads derived in the event study. This should illustrate the different implications of excess control on levels of asymmetric information within different ownership categories.

The Fixed Effects regressions performed are:

$$Log\ y_{\text{yijtk}} = \beta_0 + \beta_1 Excess\_control25average_{\text{yijtk}} + \beta_2 Closingprice_{\text{yijtk}} + \beta_3 Volume_{\text{yijtk}} + \beta_4 Trades_{\text{yijtk}} + \beta_5 Board\_memb_{\text{yijtk}} + \beta_6 Board\_meet_{\text{yijtk}} + \beta_7 Board\_dep\_c_{\text{yijtk}} + \beta_8 Board\_dep\_ms_{\text{yijtk}} + \beta_9 Board\_committees_{\text{yijtk}} + \beta_{10} Audit\_memb_{\text{yijtk}} + \beta_{11} Audit\_meet_{\text{yijtk}} + \beta_{12} Audit\_dep\_c_{\text{yijtk}} + \beta_{13} Audit\_dep\_ms_{\text{yijtk}} + \beta_{14} Analysts_{\text{yijtk}} + \beta_{15} Company\_size_{\text{yijtk}} + \beta_{16} Volatility_{\text{yijtk}} + \alpha_t + \varepsilon_i \quad (1\text{-}6)$$

$$Log\ y_{\text{yijtk}} = \beta_0 + \beta_1 Excess\_25foundfam_{\text{yijtk}} + \beta_2 Closingprice_{\text{yijtk}} + \beta_3 Volume_{\text{yijtk}} + \beta_4 Trades_{\text{yijtk}} + \beta_5 Board\_memb_{\text{yijtk}} + \beta_6 Board\_meet_{\text{yijtk}} + \beta_7 Board\_dep\_c_{\text{yijtk}} + \beta_8 Board\_dep\_ms_{\text{yijtk}} + \beta_9 Board\_committees_{\text{yijtk}} + \beta_{10} Audit\_memb_{\text{yijtk}} + \beta_{11} Audit\_meet_{\text{yijtk}} + \beta_{12} Audit\_dep\_c_{\text{yijtk}} + \beta_{13} Audit\_dep\_ms_{\text{yijtk}} + \beta_{14} Analysts_{\text{yijtk}} + \beta_{15} Company\_size_{\text{yijtk}} + \beta_{16} Volatility_{\text{yijtk}} + \alpha_t + \varepsilon_i \quad (7\text{-}13)$$

$$Log\ y_{\text{yijtk}} = \beta_0 + \beta_1 Excess\_25nonfoundfam_{\text{yijtk}} + \beta_2 Closingprice_{\text{yijtk}} + \beta_3 Volume_{\text{yijtk}} + \beta_4 Trades_{\text{yijtk}} + \beta_5 Board\_memb_{\text{yijtk}} + \beta_6 Board\_meet_{\text{yijtk}} + \beta_7 Board\_dep\_c_{\text{yijtk}} + \beta_8 Board\_dep\_ms_{\text{yijtk}} + \beta_9 Board\_committees_{\text{yijtk}} + \beta_{10} Audit\_memb_{\text{yijtk}} + \beta_{11} Audit\_meet_{\text{yijtk}} + \beta_{12} Audit\_dep\_c_{\text{yijtk}} + \beta_{13} Audit\_dep\_ms_{\text{yijtk}} + \beta_{14} Analysts_{\text{yijtk}} + \beta_{15} Company\_size_{\text{yijtk}} + \beta_{16} Volatility_{\text{yijtk}} + \alpha_t + \varepsilon_i \quad (14\text{-}20)$$

$$Log\ y_{\text{yijtk}} = \beta_0 + \beta_1 Excess\_25corp_{\text{yijtk}} + \beta_2 Closingprice_{\text{yijtk}} + \beta_3 Volume_{\text{yijtk}} + \beta_4 Trades_{\text{yijtk}} + \beta_5 Board\_memb_{\text{yijtk}} + \beta_6 Board\_meet_{\text{yijtk}} + \beta_7 Board\_dep\_c_{\text{yijtk}} + \beta_8 Board\_dep\_ms_{\text{yijtk}} + \beta_9 Board\_committees_{\text{yijtk}} + \beta_{10} Audit\_memb_{\text{yijtk}} + \beta_{11} Audit\_meet_{\text{yijtk}} + \beta_{12} Audit\_dep\_c_{\text{yijtk}} + \beta_{13} Audit\_dep\_ms_{\text{yijtk}} + \beta_{14} Analysts_{\text{yijtk}} + \beta_{15} Company\_size_{\text{yijtk}} + \beta_{16} Volatility_{\text{yijtk}} + \alpha_t + \varepsilon_i \quad (21\text{-}26)$$

$$Log\ y_{\text{yijtk}} = \beta_0 + \beta_1 Excess\_25inst_{\text{yijtk}} + \beta_2 Closingprice_{\text{yijtk}} + \beta_3 Volume_{\text{yijtk}} + \beta_4 Trades_{\text{yijtk}} + \beta_5 Board\_memb_{\text{yijtk}} + \beta_6 Board\_meet_{\text{yijtk}} + \beta_7 Board\_dep\_c_{\text{yijtk}} + \beta_8 Board\_dep\_ms_{\text{yijtk}} + \beta_9 Board\_committees_{\text{yijtk}} + \beta_{10} Audit\_memb_{\text{yijtk}} + \beta_{11} Audit\_meet_{\text{yijtk}} + \beta_{12} Audit\_dep\_c_{\text{yijtk}} + \beta_{13} Audit\_dep\_ms_{\text{yijtk}} + \beta_{14} Analysts_{\text{yijtk}} + \beta_{15} Company\_size_{\text{yijtk}} + \beta_{16} Volatility_{\text{yijtk}} + \alpha_t + \varepsilon_i \quad (26\text{-}30)$$

y= excess bid-ask spread
i=company
j=event window
t=year
k=share class

6. Results

The result section is structured into three parts. In the first part we present the interpretations to our descriptives. In the second part we present the results from the event study. In the third part we present the results from our regressions. At the end section we present the results form the robustness test.

6.1 Descriptives

The tables belonging to this part is placed in the appendix.

Table 1

Table one reports an overall view of the number of firms included in the data sample that distribute their shares through A- and B classes. Further, it illustrates how many of these shares are traded on the stock exchange during the sample period of 2008 through 2012. It appears as if the number of shares within each share class is stable throughout the sample period. As can be seen, almost all firms having B-shares[10] also trade these shares on the stock exchange. However, A shares are not traded to the same great extent. This indicates that controlling shareholders are concerned with their governance allowed by voting rights.

Table 2

The results in Table 2 report an overall view of transaction data for shares included in our sample. It is further confirmed in line with Table 1 that the number of A-shares traded is substantially lower than the number of traded B-shares. This can be interpreted by looking at the number of executed trades within each share class. Looking at the bid and ask within the different share classes it is also shown that A-shares appear to possess a smaller spread than B-shares. This is probably related to the larger number of voting rights attached to A-shares relative B-share shares.

Table 3

In table 3 we present the summary statistics of firm governance variables. As can be seen there is a wide variation in the level of corporate governance practices across firms in the sample. Looking at the number of board meetings the variance among firms appears to be substantial.

Table 4

Table 4 presents the calculated excess control possessed by shareholders within the companies included in the sample. Panel A reports for all shareholders with vote fractions $\geq$ 5% and Panel B reports for all vote fractions $\geq$ 25%. The results suggest that founder family and non founder-family owner have the largest positions of excess control within the different owner categories.

[10] Includes the companies whose different share classes are reclassified for the purpose of this study.

Table 7
Table 7 shows the regression results from the regression of average excess control possessed by the largest shareholders in every firm around each announcement on excess bid-ask spread in A-shares. The table displays a significant negative relationship between excess control and excess bid-ask spreads upon the event. However, the results do not show a significant relationship pre announcement nor post announcement.
Further, we find that board committees and board meetings have a significant negative relationship to excess bid-ask spread within A-shares. The regression on average excess bid-ask spreads within B-shares is attached in the Appendix.

Table 8
Measuring the relationship between excess control and excess bid-ask spreads within different ownership categories, the results still only shows also reveals that excess control has a reducing impact on excess bid-ask spreads, but only if the controlling owner belongs to a founder family- or a non-founder family category. This is consistent with our hypothesis of a stronger relationship between excess control and excess bid-ask spread within family categories. Looking at the governance variables the coefficients are pretty much in line with the results from the regressions on the average excess control.

6.1 Event study
Table 5 reports the results from the event study. It shows the excess bid-ask spreads during the announcement periods in A- and B-share classes. The results are in line with previous research findings investigating bid-ask spreads during earnings announcements. It appears as if A-shareholders are better informed than B-shareholder. B-shareholders protect themselves against trade by widening the spread pre-announcement (McNichols & Trueman 1994; Demski & Feltman 1994). A-shareholders on the other hand appear to benefit from superior information through their higher stake of voting rights.

6.2 Regressions

6.2.1 Multivariate regression analysis
We have performed a multivariate regression analysis in order to study the impact of excess control on levels of information asymmetry during earnings announcements.

6.2.2 Interpretation
Overall we interpret the evidence from controlling owners possessing excess control having a mitigating impact on excess bid-ask spreads within both share classes to suggest that excess control have a reducing effect on levels of information asymmetry around earnings announcement. However, due to some inconsistencies in the level of information possessed by shareholders in the different share classes, we suggest that A-shareholders are better informed due to their higher voting stake and as a result larger discretion over company prospects. Further, we also suggest that B-shareholders do not have the same benefit from discretion over company prospects dur to a lower stake in company capital. As a result they protect themselves against informed shareholders. This is reflected in the results from the event study as a widening of the spread in B-share during pre announcement period. Consistent with previous literature better-informed A-shareholders benefit from such their superior information and execute trade before announcement. This is reflected in Table XX as a higher number of executed trades within A-shares pre announcement, followed by a substantial decline post announcement. Further, the opposite holds for number of executed trades within B-shares that increases upon announcement.

7. Discussion

In this research we investigated the relationship between excess control and excess bid-ask spreads around announcements of quarterly and annual reports in high- and low vote shares respectively. Consistent with our hypothesis, we have found that excess control has a mitigating effect of excess bid-ask spreads in both share classes, implying that excess control reduces the level of information asymmetry perceived by shareholders within the respective share class.

Provided that high vote owners possess higher vote fractions than low vote shareholders, one would expect shareholder with more discretion over corporate decision-making to possess more information about firm prospects from which there is a possibility to benefit from trading on superior information (Krinsky & Lee 1996; Kim & Verrecchia 1992). This is supported by larger number of executed trades within high vote shares pre announcement, followed by a substantial decline upon announcement. It suggests that high vote shareholders try to benefit form information-based trading before information is released to the public, trading against each other as well as against less informed shareholders in the low vote share class. This is reflected by a lack of a mitigating relationship between excess control and excess bid-ask spreads within high vote shares pre announcement, supported by such a significant relationship upon announcement. This is further reflected by an increase in excess bid-ask spreads pre announcement within low vote shares. Minority shareholders widen the spread as they try to protect themselves against trade with better-informed high vote shareholders. However, the results do not reveal support for any association of such a situation to be associated with the presence of excess control. Rather, the significant negative relationship between excess control and excess bid-ask spreads within low vote shares controlled by a family owner shows a reducing effect from such an ownership. This still supports our reasoning about controlling shareholders possessing excess control to be incentivised to act in the favour of minority shareholders. Such actions should stem from a combination of increased corporate governance related pressure and the increased accessibility of stock trading to individual investors, enhancing corporate transparency and as a result associated with excess control possessed by the present controlling shareholder.

Provided some disclosure requirements according to the Code for listed companies, minority shareholders are able to benchmark the relative levels of corporate governance performed among firms. This should make it harder for controlling shareholders to derive private benefits from its position of control since it would be at the expense of loosing providers of capital. This holds since the disclosure requirements should make it easier for minority shareholders to detect such inefficient investment behaviour. Further, provided that the Code constitutes some recommendations to be applied by listed companies it also appears as if family owners, previously associated with lack of management skills and inability to perform sound decisions (Cronqvist & Nilsson 2000; Carl Oreland 2005), have been able to improve their governance by aligning with the Code.

Further, as a suggestion, family owner appears to be the investor category most concerned with acting upon the behaviour of minority shareholders since there is no such relationship among other investor categories. This can be related to the fact that family owners probably have been the most frequently associated investor category to risks of agency costs borne to the minority shareholder. Further, provided the potential benefit of corporations or institutions to have access to other sources of external financing from minority shareholders that family owners don't access, it appears as if family owners should be more concerned with attracting minority shareholders and as a result act more on their behalf. As a result, minority

shareholders within an ownership structure controlled by a family owner possessing excess control should thus benefit rather them suffer form the presence of such ownership enhancing the liquidity of its investments with positive effects on shareholder value. At the same time, controlling shareholders should also benefit from the resulting situation. Provided the actions in favour of the minority shareholder, increased information disclosure, enhanced investment behaviour etc. the firm should appear as an attractive investment opportunity in the market. As a result, the controlling shareholder should be able to attract cheap financing, decreasing the firm's cost of capital (Diamond & Verrecchia 1991).

Making interpretations about the positive effects from increased practising of corporate governance related activities by a firm, controlling shareholders and minority shareholders in-between in a dual-class share structure, the results appear to reveal additional, different inferences for those practices on levels of information asymmetry within the respective share class.

Reviewing financial literature, the relationship between the audit committee and a reduction of access bid-ask spreads within both high- and low vote shares can be interpreted with agency theory. Provided that the audit committee serves as an independent monitor, providing recommendations about corporate financing and dividend policy (Klein 1998) the committee also possess some discretion over corporate decision-making. The benefit of such presence to a controlling shareholder should either constitute protection of his share wealth or protection of the right to exercise governance through its voting rights (Shleifer & Vishny 1997). Given that a controlling owner holds a concentrated stake in the company, he should be concerned about the value of his shares. As a matter of discretion over company investment funds, the objective role that the audit committee might provide the controlling shareholder with is welfare protection in addition to his own discretion, possessed through a large stake in company votes. However, previous findings have also revealed that the controlling shareholder derives other benefits when entitled with a larger fraction of company votes relative company capital (Schöldström & Wattsgård 2010). The negative increasing effect of excess-bid ask spreads from the presence of board activities within high vote shares can be viewed as a support of those findings. Given that the board decides upon long-term corporate strategy, the controlling shareholder might not possess as leveraged position of control through its large stake in company votes as desired, and as a result the ability to influence over firm future prospects is limited. This supports previous findings that voting rights are attributed some voting premium, enabling right to pursue control within a corporation (Zingales 1994). As a suggestion, if board activity conflicts the ability of the controlling shareholder to govern the company by exercising his voting rights, there is a potential risk that the controlling shareholder discounts the premium and as a result the value of the voting right (Fama & Jensen 1983). This means that the reluctance from limits to control, as a result of board presence and activity, could be reflected as an increase in excess bid-ask spread. Analysing board appearance impact on excess bid-ask spread within low vote share yields a concern of board dependency among minority shareholders. In Sweden, majority shareholders are entitled with the right to elect board members[11]. Provided findings on conflicts of interests between controlling shareholders and minority shareholders (Cronqvist & Nilsson 2000), a setting where controlling shareholders are able to influence the composition of board structure could potentially question the ability of the board work to ensure interests of all shareholders of the company. As a result it appears as if the minority shareholder, despite its absence of access to control through some substantial stake in voting rights, they don't remain passive.

Rather, it appears as their ability to discount company equity is more prominent, considering their leveraged position as a financier among several companies in a competitive market place.

8. Conclusions

We have found that controlling shareholders possessing excess control appear to benefit from their larger stake in voting rights. This should be a to concern for minority shareholders as reflected by a widening in the bid-ask spread of B-shares. However, our results do not reflect that minority shareholders perceive higher levels of information asymmetry in the presence of excess control. Rather, considering the results within controlling family ownership, excess control is shown to have a reducing impact on excess bid-ask spreads in B-shares. We suggest that this reaction among minority shareholders stems from that corporate governance requirements imposed to controlling shareholders by the Code make it harder for controlling shareholders to act in their own interests at the expense of minority shareholders. This should enhance corporate transparency, which as a result should have positive effects on levels of asymmetric information. However, it appears as if investor protection remains a concern for minority shareholders. The negative relationship between board dependency variables and excess bid-ask spread within low vote shares suggests that minority shareholders still are concerned with controlling shareholders discretion over corporate decision-making. Provided that the audit committee remains an objective part of the company board, the negative relationship between audit committee and levels of asymmetric information within both share classes suggests that the objective presence within corporate decision-making is valued by both controlling shareholders and minority shareholders. As a result we believe that we have found that corporate governance improves corporate transparency, making it more difficult for shareholders to derive private benefits from its position of excess control within the company. We also believe that the corporate transparency is enhanced by some incentives of the controlling shareholder to rely on minority as a source of financing. This is reflected in our results, as controlling ownership possessed by family owners is the only significant relationship revealing a mitigating impact of excess control en excess bid-ask spreads within different ownership categories.

Performing this study our attempt has been to investigate if the means of excess control possessed by a controlling shareholder affects levels of asymmetric information during earnings announcements. Our research question is distinguished from previous literature in the sense that it investigates the phenomenon of excess control within two share classes. The interpretation behind performing a research within a dual share class structure was to question previous concerns about risks associated with excess control in the presence of the increased practices of corporate governance. We believe to have found that excess control has a mitigating effect on levels of information asymmetry. However it is difficult to make inferences about the credibility of the provided that our results does not appear in a consistent pattern.

9. Variables

Corporate_id: Company identifier
Date: Trading date
Semi_date: Date at which ownership information has been collected
Year: Relative sample year
Investor_category: Defined as founder-family (1), non-founder family(2), corporation(3) or institution(4)
Closingpric_A: Daily closing price of A shares
Volume_A: Daily trading volume of A shares
Turnover_A: Daily trading turnover of A shares
Trades_A: Number of executed trades of A shares
Closingprice_B: Daily closing price of B shares
Volume_B: Daily trading volume of B shares
Turnover_B: Daily trading turnover of B shares
Trades_B: Number of executed trades B shares

Governance variables
Board_memb: Number of board members on company
Board_meet: Number of board meetings
Board_dep_c: Number of board members dependent on company
Board_dep_ms: Number of board members dependent on majority shareholders
Board_committes: Number of board committees per company
Audit_memb: Number of audit members per company
Audit_meet: Number of audit meetings per company
Audit_dep_c: Number of audit members dependent on company
Audit_dep_ms: Number of audit members dependent on majority shareholders
Analysts: Number of analysts following the company
Highprice: Highest daily stock price B shares
Lowprice: Lowest daily stock price B shares
Highpricea: Highest daily stock price A shares
Lowpricea: Lowest daily stock price B shares
Largeap: Dummy variable =1 if Company has a market capitalisation above 1 billion euro
Midcap: Dummy variable =1 if Company has a market capitalisation above 150 million >1 billion euro
Smallcap: Dummy variable =1 if Company has a market capitalisation above 150 million euro
AB_classes: Companies with both A- and B share classes
A_dummy_traded: Companies with A classes that are traded

Excess_control5average: Average excess control of all shareholders with a larger vote fraction ≥5%
Excess_control5largest: Largest calculated excess control of all shareholders with a vote fraction ≥5%
Excess_avgfoundfam_5: Average excess control of shareholders with a vote fraction ≥5% within the founder-family ownership category
Excess_avgnonfoundfam_5: Average excess control of shareholders with a vote fraction ≥5% within the non-founder family ownership category
Excess_avgcorp_5: Average excess control of shareholders with a vote fraction ≥5% within the corporation ownership category

Excess_avginst_5: Average excess control of shareholders with a vote fraction ≥5% within the financial institution ownership category
Excess_maxfoundfam_5: Largest excess control of shareholders with a vote fraction ≥5% within the founder-family ownership category
Excess_maxnonfoundfam_5: Largest excess control of shareholders with a vote fraction ≥5% within the non-founder family ownership category
Excess_maxcorp_5: Largest excess control of shareholders with a vote fraction ≥5% within the corporation ownership category
Excess_maxinst_5: Largest excess control of shareholders with a vote fraction ≥5% within the institutional ownership category
Excess_control25average: Average calculated excess control of all shareholders with a vote fraction ≥25%
Excess_control25largest: Largest calculated excess control of all shareholders with a vote fraction ≥25%
Excess_25foundfam: Largest excess control of shareholders with a vote fraction ≥25% within the founder family ownership category
Excess_25nonfoundfam: Largest excess control of shareholders with a vote fraction ≥25% within the non-founder family ownership category
Excess_25corp: Largest excess control of shareholders with a vote fraction ≥25% within the corporation ownership category
Excess_25inst: Largest excess control of shareholders with a vote fraction ≥25% within the financial institutional ownership category
Dispersed_control: Dummy variable =1 if there is no controlling shareholder with a vote fraction ≥25%
Company_size: Proxy for market capitalization
Volatility_A: Standard deviation return on A shares
Volatility_B: Standard deviation of return on B shares
Event_Q1: Date of announcement quarterly report one
Event_Q2: Date of announcement quarterly report two
Event_Q3: Date of announcement quarterly report three
Event_Q4: Date of announcement quarterly report four
Event_AR: Date of announcement annual report
events_pre_A: excess bid-ask spread pre-disclosure period A shares
events_ev_A: excess bid-ask spread event period A shares
events_post_A: excess bid-ask spread post-event period A shares
events_pre_B: excess bid-ask spread pre-disclosure period B shares
events_ev_B: excess bid-ask spread event period B shares
events_post_B: excess bid-ask spread post-event period B shares
levents_pre_A: log of excess bid-ask spread pre-disclosure period A shares
levents_ev_A: log of excess event period A shares
levents_post_A: log of excess bid-ask spread post-event period A shares
levents_pre_B: log excess bid-ask spread pre-disclosure period B shares
levents_ev_B: log of excess bid-ask spread event period B shares
levents_post_B: log of excess bid-ask spread post-event period B shares

10. Appendix

Share classes	A Class	B Class	A&B Class	A Class Traded	B Class Traded
2008	98	98	188	52	188
2009	98	98	188	51	182
2010	98	98	188	50	186
2011	98	98	188	49	185
2012	98	98	188	47	188

Table 2

Table 2 reports descriptive statistics on the transaction data for shares within A- and B classes. It illustrates that B-shares traded to a much greater extent than A-shares. This is reflected in the number of executed trades, the trading volume and trading turnover.

A-shares	**Mean**	**sd**	**Max**	**Min**	**Count**
Bid	15.05	45.24	528.50	0.00	331400.00
Ask	14.99	47.01	1000.00	0.00	331400.00
Closing	15.96	47.35	550.00	0.00	331400.00
High	120.57	72.70	550.00	3.21	36020.00
Low	117.62	71.42	537.00	3.21	36020.00
Trades	97.27	697.75	27834.00	0.00	331400.00
Total	101373.02	904886.92	1.35e+08	0.00	331400.00
Turnover	9327794.93	84468601.18	2.58e+10	0.00	331400.00
Summary	statistics				

B-shares	**Mean**	**sd**	**Max**	**Min**	**Count**
Bid	63.41	64.68	529.00	0.00	331400.00
Ask	63.93	64.89	529.50	0.00	331400.00
Closing	63.77	64.74	529.50	0.00	331400.00
High	68.21	65.77	538.00	0.05	309071.00
Low	66.38	64.33	525.00	0.04	309070.00
Trades	540.71	1388.77	40778.00	0.00	331400.00
Total	634840.09	3674193.59	7.95e+08	0.00	331400.00
Turnover	42930625.92	1.57e+08	1.20e+10	0.00	331400.00

Table 4

The table displays excess control within A shareholders. Panel A reports excess control for all shareholders with a vote fraction ≥ 5%. Panel B reports excess control for all controlling shareholders with vote fractions ≥ 25%.

Panel A				
Excess control ≥ 5%	mean	max	min	sd
Excess_control5	9.41	50.40	0.00	10.87
Excess_foundfam_5	17.83	50.40	0.01	12.14
Excess_nonfoundfam_5	10.29	45.80	0.02	10.23
Excess_corp_5	6.00	30.90	0.03	7.58
Excess_inst_5	3.01	30.50	0.04	6.40

Panel B				
Excess control ≥ 25%	mean	max	min	sd
Excess_control25	1.45	61.70	0.00	6.47
Excess_control25la~t	1.45	61.70	0.00	6.47
Excess_25foundfam	26.09	58.40	0.20	10.81
Excess_25nonfoundfam	25.54	44.30	2.80	9.15
Excess_25corp	17.19	34.80	1.10	9.47
Excess_25inst	14.58	51.00	2.40	11.70

Table 3

Table 2 reported descrptive statistics on the transaction data for shares within A- and B classes illustrates that B shares in contrast to A shares are traded to a much greater extent. This is reflected in the number of executed trades, the trading volume and trading turnover.

A-shares	Mean	sd	Max	Min	Count
Bid	15.05	45.24	528.50	0.00	331400.00
Ask	14.99	47.01	1000.00	0.00	331400.00
Closing	15.96	47.35	550.00	0.00	331400.00
High	120.57	72.70	550.00	3.21	36020.00
Low	117.62	71.42	537.00	3.21	36020.00
Trades	97.27	697.75	27834.00	0.00	331400.00
Total	101373.02	904886.92	1.35e+08	0.00	331400.00
Turnover	9327794.93	84468601.18	2.58e+10	0.00	331400.00
Summary	statistics				
B-shares	Mean	sd	Max	Min	Count
Bid	63.41	64.68	529.00	0.00	331400.00
Ask	63.93	64.89	529.50	0.00	331400.00
Closing	63.77	64.74	529.50	0.00	331400.00
High	68.21	65.77	538.00	0.05	309071.00
Low	66.38	64.33	525.00	0.04	309070.00
Trades	540.71	1388.77	40778.00	0.00	331400.00
Total	634840.09	3674193.59	7.95e+08	0.00	331400.00
Turnover	42930625.92	1.57e+08	1.20e+10	0.00	331400.00

Table 5

The numbers represent the results from the event study. Pane A reports excess bid-ask spreads for A-share and Panel B reports excess bid-ask spreads for B-shares. Negative excess spreads are reported for A -shares pre- and post announcement whereas negative excess bid-ask spreads are reported upon and post announcement in B shares.

A-shares	mean	sd	max
Pre Event	-0.0031	0.1680	1.9802
Event	-0.0010	0.1765	2.6289
Post Event	0.4416	56.0450	1062.6337

B-shares	mean	sd	max
Pre Event	0.0015	0.0551	1.9612
Event	-0.0000	0.0628	1.9931
Post Event	-0.0083	9.2223	314.1464

Table 6

A-Shares				B-shares			
Family Founc	mean	sd	max	Family Founc	mean	sd	max
Pre Event	-0.0027	0.1608	1.9802	Pre Event	0.0011	0.0482	1.9472
Event	-0.0011	0.1709	2.6289	Event	0.0005	0.0569	1.9931
Post Event	0.5035	56.9186	1062.6337	Post Event	-0.0814	8.1919	225.5548
Non-Family F	mean	sd	max	Non-Family F	mean	sd	max
Pre Event	-0.0030	0.1622	1.9802	Pre Event	0.00	0.0560	1.9612
Event	-0.0010	0.1685	2.6289	Event	-0.00	0.0639	1.9931
Post Event	0.4936	56.1426	1062.6337	Post Event	-0.01	9.3729	314.1464
Corporation	mean	sd	max	Corporation	mean	sd	max
Pre Event	-0.0025	0.1608	1.9595	Pre Event	0.0009	0.0414	1.8871
Event	-0.0024	0.1691	2.0240	Event	0.0001	0.0552	1.9931
Post Event	0.7932	57.8144	1062.6337	Post Event	-0.0452	8.7572	225.5548

Table 7

Firm Governance variables

	Board Memb	Board Meeti	Board memb	Board memb	Audit membe	Audit meetin	Audit membe	Audit membe	Board comm
Mean	8	10	1	2	3	3	1	1	2
Max	15	47	6	8	10	22	5	8	3
sd	2	4	1	2	2	3	1	1	1

VARIABLES	(1) levents_pre_A	(2) levents_ev_A	(3) levents_post_A
Excess_control25average	-0.0128	0.0260	-0.0293
	(0.032)	(0.017)	(0.025)
Closingprice_A	-0.0027	0.0020	-0.0052*
	(0.004)	(0.003)	(0.003)
Volume_A	-0.0000	0.0000	0.0000
	(0.000)	(0.000)	(0.000)
Trades_A	0.0002	-0.0001	0.0001
	(0.000)	(0.000)	(0.000)
Board_memb	0.4162*	-0.0001	0.0738
	(0.217)	(0.116)	(0.179)
Board_meet	-0.0058	0.0278	0.0346
	(0.073)	(0.051)	(0.065)
Board_dep_c	-0.3790*	-0.2008	-0.0849
	(0.229)	(0.212)	(0.192)
Board_dep_ms	0.0192	0.0879	0.2152
	(0.195)	(0.170)	(0.182)
Board_committees	1.4214	-0.6686	1.9680*
	(1.131)	(0.445)	(1.131)
Audit_memb	-0.0103	0.1956	0.1063
	(0.182)	(0.131)	(0.145)
Audit_meet	0.0075	-0.0176	-0.1414
	(0.144)	(0.100)	(0.119)
Audit_dep_c	-0.4375	0.0359	0.5722
	(0.724)	(0.324)	(0.358)
Audit_dep_ms	0.2815	-0.0354	-0.0995
	(0.375)	(0.285)	(0.311)
Analysts		-0.0260	
		(0.030)	
Company_size	0.1427	-0.4947***	-0.0456
	(0.441)	(0.178)	(0.206)
Volatility_A	129.5633***	91.1250**	104.9114***
	(46.913)	(39.023)	(37.959)
Constant	-15.2973	6.1271*	-3.0110
	(10.389)	(3.496)	(5.835)
Observations	209	208	258
R-squared	0.1034		0.1083
Number of Corporate_id	27	27	27
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_B	(2) levents_ev_B	(3) levents_post_B
Excess_control25average	0.0001	0.0120	0.0140
	(0.013)	(0.016)	(0.013)
Closingprice_B	-0.0040**	-0.0013	-0.0014
	(0.002)	(0.002)	(0.002)
Volume_B	0.0000	0.0000	0.0000**
	(0.000)	(0.000)	(0.000)
Trades_B	0.0000	-0.0000	-0.0001*
	(0.000)	(0.000)	(0.000)
Board_memb	0.0092	0.0736	-0.0721
	(0.062)	(0.064)	(0.057)
Board_meet	0.0315**	0.0039	0.0169
	(0.016)	(0.013)	(0.013)
Board_dep_c	0.1431*	0.1335	0.1326*
	(0.086)	(0.087)	(0.074)
Board_dep_ms	0.0989	0.0841	0.0053
	(0.075)	(0.079)	(0.072)
Board_committees	-0.0959	-0.2241	-0.0822
	(0.159)	(0.156)	(0.154)
Audit_memb	0.0484	0.0954*	0.0897*
	(0.053)	(0.053)	(0.048)
Audit_meet	-0.0333	0.0128	-0.0061
	(0.027)	(0.030)	(0.028)
Audit_dep_c	-0.1226	-0.1369	-0.2768**
	(0.136)	(0.128)	(0.122)
Audit_dep_ms	-0.0892	-0.1179	-0.1787*
	(0.115)	(0.118)	(0.103)
Analysts	-0.0620	-0.2357	-0.0654
	(0.442)	(0.228)	(0.244)
Company_size	-0.1173	-0.2721**	-0.2458**
	(0.112)	(0.112)	(0.100)
Volatility_B	-8.9821	-15.7614*	-7.5623
	(8.091)	(8.121)	(7.591)
Constant	-2.7625	1.1639	5.2639**
	(3.411)	(2.666)	(2.522)
Observations	1,500	1,407	1,592
R-squared	0.0194	0.0250	0.0299
Number of Corporate_id	168	168	168
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_A	(2) levents_ev_A	(3) levents_post_A
Excess_25foundfam	-0.0571	-0.1248	-0.1551**
	(0.076)	(0.082)	(0.067)
Closingprice_A	-0.0011	-0.0083	-0.0065**
	(0.005)	(0.005)	(0.003)
Volume_A	0.0000	0.0000	-0.0000
	(0.000)	(0.000)	(0.000)
Trades_A	0.0001	0.0001	0.0002
	(0.000)	(0.000)	(0.000)
Board_memb	0.3207	0.2571	0.0628
	(0.257)	(0.224)	(0.215)
Board_meet	0.0095	0.1004	0.0282
	(0.073)	(0.071)	(0.069)
Board_dep_c	-0.3723	0.2423	0.0973
	(0.286)	(0.309)	(0.254)
Board_dep_ms	0.2975	0.1624	0.6475**
	(0.301)	(0.304)	(0.273)
Board_committees	1.3839	2.9091***	2.3388**
	(1.111)	(0.996)	(1.176)
Audit_memb	-0.0747	0.1282	0.0958
	(0.193)	(0.173)	(0.161)
Audit_meet	0.0145	-0.1570	-0.1254
	(0.144)	(0.130)	(0.130)
Audit_dep_c	-0.0688	0.3010	0.9678**
	(0.745)	(0.393)	(0.410)
Audit_dep_ms	0.3474	-0.2622	-0.2879
	(0.396)	(0.367)	(0.361)
Company_size	0.1653	0.0174	0.0108
	(0.443)	(0.485)	(0.213)
Volatility_A	129.6003**	139.1212***	141.2027***
	(51.146)	(44.416)	(43.985)
Constant	-13.8875	-11.0460	-2.2060
	(10.440)	(10.938)	(6.192)
Observations	171	177	218
R-squared	0.1309	0.2065	0.1352
Number of Corporate_id	23	23	23
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_A	(2) levents_ev_A	(3) levents_post_A
Excess_25nonfoundfam	0.0576	-0.0915*	-0.0231
	(0.070)	(0.054)	(0.055)
Closingprice_A	-0.0013	-0.0084*	-0.0044
	(0.005)	(0.005)	(0.003)
Volume_A	0.0000	0.0000	0.0000
	(0.000)	(0.000)	(0.000)
Trades_A	0.0001	0.0001	0.0001
	(0.000)	(0.000)	(0.000)
Board_memb	0.3487	0.3063	0.0992
	(0.262)	(0.223)	(0.211)
Board_meet	-0.0070	0.1263*	0.0286
	(0.077)	(0.072)	(0.069)
Board_dep_c	-0.3871	0.0403	-0.0958
	(0.275)	(0.273)	(0.231)
Board_dep_ms	0.1652	-0.0809	0.2905
	(0.262)	(0.254)	(0.227)
Board_committees	1.4026	2.5913**	1.9326
	(1.159)	(1.005)	(1.181)
Audit_memb	-0.0167	0.0382	0.0806
	(0.194)	(0.166)	(0.152)
Audit_meet	0.0323	-0.1898	-0.1650
	(0.145)	(0.130)	(0.125)
Audit_dep_c	-0.3857	0.0378	0.6008
	(0.752)	(0.365)	(0.381)
Audit_dep_ms	0.3165	0.1101	-0.0028
	(0.387)	(0.331)	(0.322)
Company_size	0.1515	-0.0095	-0.0225
	(0.463)	(0.485)	(0.220)
Volatility_A	134.8462***	108.6794**	107.1464***
	(49.375)	(41.782)	(41.041)
Constant	-16.6771	-10.1885	-3.3638
	(11.162)	(11.157)	(6.635)
Observations	190	195	239
R-squared	0.1145	0.1961	0.1041
Number of Corporate_id	25	25	25
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_A	(2) levents_ev_A	(3) levents_post_A
Excess_25inst	0.0776	0.0213	-0.0684
	(0.089)	(0.079)	(0.209)
Closingprice_A	-0.0013	-0.0080	-0.0045
	(0.005)	(0.005)	(0.003)
Volume_A	0.0000	0.0000	0.0000
	(0.000)	(0.000)	(0.000)
Trades_A	0.0001	0.0001	0.0001
	(0.000)	(0.000)	(0.000)
Board_memb	0.3684	0.2620	0.0818
	(0.262)	(0.223)	(0.212)
Board_meet	-0.0016	0.1135	0.0313
	(0.076)	(0.072)	(0.071)
Board_dep_c	-0.3864	0.0684	-0.0990
	(0.275)	(0.277)	(0.232)
Board_dep_ms	0.1513	-0.0554	0.2999
	(0.262)	(0.258)	(0.227)
Board_committees	1.3157	2.7108***	1.9996*
	(1.159)	(1.012)	(1.173)
Audit_memb	-0.0121	0.0390	0.0773
	(0.194)	(0.168)	(0.152)
Audit_meet	0.0055	-0.1685	-0.1517
	(0.147)	(0.132)	(0.128)
Audit_dep_c	-0.4053	0.0795	0.6143
	(0.754)	(0.369)	(0.383)
Audit_dep_ms	0.3306	0.0788	-0.0200
	(0.386)	(0.333)	(0.324)
Company_size	0.0969	-0.0225	0.0063
	(0.463)	(0.490)	(0.213)
Volatility_A	121.7013**	114.4117***	111.1595***
	(50.334)	(42.758)	(41.234)
Constant	-15.0275	-12.5138	-3.5720
	(10.879)	(11.182)	(6.706)
Observations	190	195	239
R-squared	0.1150	0.1818	0.1038
Number of Corporate_id	25	25	25
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_A	(2) levents_ev_A	(3) levents_post_A
Excess_25corp	0.4898	0.0396	0.0193
	(0.389)	(0.267)	(0.145)
Closingprice_A	-0.0010	-0.0109*	0.0027
	(0.005)	(0.006)	(0.004)
Volume_A	-0.0000	-0.0000	-0.0000
	(0.000)	(0.000)	(0.000)
Trades_A	0.0024	0.0027	-0.0050
	(0.006)	(0.008)	(0.003)
Board_memb	-0.2037	0.3022	0.1179
	(0.441)	(0.391)	(0.315)
Board_meet	-0.0621	0.0262	0.0704
	(0.114)	(0.111)	(0.107)
Board_dep_c	-0.7977	-0.2159	-0.4129
	(0.598)	(0.588)	(0.522)
Board_dep_ms	1.2727**	0.5586	0.5315
	(0.579)	(0.562)	(0.412)
Board_committees	2.6864*	2.5786*	2.3576
	(1.580)	(1.501)	(1.821)
Audit_memb	0.2759	0.3616	0.3241
	(0.263)	(0.262)	(0.223)
Audit_meet	-0.6722**	-0.6457*	-0.4188
	(0.330)	(0.340)	(0.273)
Audit_dep_c	-1.1262	-1.2880	0.5138
	(1.708)	(1.527)	(1.315)
Audit_dep_ms	-1.7403*	-1.1354	-0.8166
	(0.990)	(0.897)	(0.774)
Company_size	0.2398	0.4795	-0.1173
	(0.503)	(0.562)	(0.434)
Volatility_A	92.2713	70.4187	71.7610
	(76.873)	(72.517)	(64.302)
Constant	-19.2958	-18.9199	-1.3135
	(13.595)	(14.025)	(10.592)
Observations	91	87	115
R-squared	0.2107	0.2980	0.1732
Number of Corporate_id	11	11	11
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_B	(2) levents_ev_B	(3) levents_post_B
Excess_25foundfam	0.0589*	0.0828**	0.0602*
	(0.033)	(0.037)	(0.033)
Closingprice_B	-0.0040**	-0.0008	-0.0014
	(0.002)	(0.002)	(0.002)
Volume_B	0.0000	0.0000	0.0000**
	(0.000)	(0.000)	(0.000)
Trades_B	0.0000	-0.0000	-0.0000
	(0.000)	(0.000)	(0.000)
Board_memb	-0.0038	0.0898	-0.0583
	(0.063)	(0.066)	(0.058)
Board_meet	0.0258*	0.0077	0.0152
	(0.015)	(0.013)	(0.013)
Board_dep_c	0.1258	0.1287	0.1150
	(0.087)	(0.089)	(0.076)
Board_dep_ms	0.1483*	0.0545	0.0068
	(0.078)	(0.081)	(0.075)
Board_committees	-0.1378	-0.2436	-0.0902
	(0.157)	(0.157)	(0.154)
Audit_memb	0.0634	0.0989*	0.0998**
	(0.053)	(0.054)	(0.048)
Audit_meet	-0.0413	0.0074	-0.0143
	(0.027)	(0.030)	(0.028)
Audit_dep_c	-0.1178	-0.1750	-0.2553**
	(0.134)	(0.129)	(0.122)
Audit_dep_ms	-0.1102	-0.0784	-0.2258**
	(0.115)	(0.120)	(0.104)
Analysts	-0.0534	-0.2441	-0.0566
	(0.435)	(0.228)	(0.243)
Company_size	-0.1096	-0.2667**	-0.2597**
	(0.111)	(0.113)	(0.101)
Volatility_B	-8.1455	-17.7911**	-7.9430
	(8.124)	(8.325)	(7.758)
Constant	-4.2551	-0.7717	4.3478*
	(3.195)	(2.714)	(2.529)
Observations	1,440	1,346	1,519
R-squared	0.0243	0.0304	0.0321
Number of Corporate_id	160	160	160
Adj. R-squared	.	.	.

VARIABLES	(1) levents_pre_B	(2) levents_ev_B	(3) levents_ev_B
Excess_25nonfoundfam	0.0674***	0.0098	0.0098
	(0.024)	(0.024)	(0.024)
Closingprice_B	-0.0042**	-0.0014	-0.0014
	(0.002)	(0.002)	(0.002)
Volume_B	0.0000	0.0000	0.0000
	(0.000)	(0.000)	(0.000)
Trades_B	0.0000	-0.0000	-0.0000
	(0.000)	(0.000)	(0.000)
Board_memb	-0.0046	0.0788	0.0788
	(0.063)	(0.065)	(0.065)
Board_meet	0.0259*	0.0069	0.0069
	(0.016)	(0.013)	(0.013)
Board_dep_c	0.1905**	0.1512*	0.1512*
	(0.086)	(0.087)	(0.087)
Board_dep_ms	0.1077	0.0685	0.0685
	(0.076)	(0.079)	(0.079)
Board_committees	-0.0940	-0.2134	-0.2134
	(0.157)	(0.156)	(0.156)
Audit_memb	0.0513	0.0964*	0.0964*
	(0.053)	(0.053)	(0.053)
Audit_meet	-0.0380	0.0076	0.0076
	(0.027)	(0.030)	(0.030)
Audit_dep_c	-0.1420	-0.1593	-0.1593
	(0.134)	(0.128)	(0.128)
Audit_dep_ms	-0.0724	-0.1016	-0.1016
	(0.113)	(0.118)	(0.118)
Analysts	-0.0677	-0.2413	-0.2413
	(0.437)	(0.227)	(0.227)
Company_size	-0.0908	-0.2665**	-0.2665**
	(0.111)	(0.112)	(0.112)
Volatility_B	-8.5975	-17.7707**	-17.7707**
	(8.063)	(8.189)	(8.189)
Constant	-4.8429	0.9662	0.9662
	(3.244)	(2.643)	(2.643)
Observations	1,471	1,380	1,380
R-squared	0.0265	0.0260	0.0260
Number of Corporate_id	164	164	164
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_B	(2) events_ev_B	(3) events_post_B
Excess_25inst	0.0049	-0.0000	0.0011
	(0.042)	(0.001)	(0.153)
Closingprice_B	-0.0041**	-0.0000	0.0014
	(0.002)	(0.000)	(0.007)
Volume_B	0.0000	0.0000	0.0000
	(0.000)	(0.000)	(0.000)
Trades_B	0.0000	-0.0000	-0.0000
	(0.000)	(0.000)	(0.000)
Board_memb	-0.0020	0.0002	0.0058
	(0.063)	(0.002)	(0.247)
Board_meet	0.0291*	0.0003	0.0291
	(0.016)	(0.000)	(0.058)
Board_dep_c	0.1858**	0.0024	0.6170*
	(0.086)	(0.002)	(0.325)
Board_dep_ms	0.1142	0.0007	0.0665
	(0.076)	(0.002)	(0.298)
Board_committees	-0.0970	-0.0013	-0.0272
	(0.157)	(0.005)	(0.613)
Audit_memb	0.0469	-0.0004	-0.0709
	(0.053)	(0.001)	(0.195)
Audit_meet	-0.0345	0.0006	0.0738
	(0.027)	(0.001)	(0.111)
Audit_dep_c	-0.1404	-0.0011	-0.6085
	(0.135)	(0.004)	(0.524)
Audit_dep_ms	-0.0742	0.0021	0.2061
	(0.114)	(0.003)	(0.424)
Analysts	-0.0633	-0.0028	-0.0609
	(0.438)	(0.009)	(1.179)
Company_size	-0.0982	0.0045	0.3183
	(0.111)	(0.003)	(0.422)
Volatility_B	-8.0713	0.1671	23.6149
	(8.068)	(0.238)	(31.825)
Constant	-3.2660	-0.0944	-8.5280
	(3.291)	(0.084)	(11.193)
Observations	1,477	3,670	3,670
R-squared	0.0206	0.0019	0.0021
Number of Corporate_id	165	166	166
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_B	(2) events_ev_B	(3) events_post_B
Excess_25corp	-0.0238	0.0003	0.0328
	(0.032)	(0.001)	(0.119)
Closingprice_B	-0.0059**	-0.0000	-0.0022
	(0.002)	(0.000)	(0.009)
Volume_B	0.0000	0.0000	0.0000
	(0.000)	(0.000)	(0.000)
Trades_B	-0.0000	-0.0000	-0.0000
	(0.000)	(0.000)	(0.000)
Board_memb	-0.0320	0.0004	0.0105
	(0.069)	(0.002)	(0.259)
Board_meet	0.0232	0.0006	0.0087
	(0.016)	(0.000)	(0.056)
Board_dep_c	0.1689*	0.0026	0.3555
	(0.093)	(0.002)	(0.351)
Board_dep_ms	0.1478*	0.0015	0.1052
	(0.088)	(0.002)	(0.335)
Board_committees	-0.1535	-0.0015	0.1923
	(0.161)	(0.004)	(0.594)
Audit_memb	0.0800	0.0010	-0.0338
	(0.055)	(0.001)	(0.200)
Audit_meet	-0.0518*	0.0004	0.0225
	(0.028)	(0.001)	(0.109)
Audit_dep_c	-0.0921	-0.0020	-0.5096
	(0.150)	(0.004)	(0.567)
Audit_dep_ms	-0.1783	-0.0010	-0.1071
	(0.130)	(0.003)	(0.464)
Analysts	-0.0516	-0.0024	-0.0691
	(0.432)	(0.008)	(1.090)
Company_size	-0.0513	0.0040	0.3588
	(0.126)	(0.003)	(0.441)
Volatility_B	-3.1661	0.1143	-7.2581
	(9.075)	(0.238)	(33.635)
Constant	-3.5846	-0.0970	-8.0924
	(3.150)	(0.072)	(10.240)
Observations	1,159	2,829	2,829
R-squared	0.0271	0.0029	0.0011
Number of Corporate_id	128	129	129
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_A	(2) levents_ev_A	(3) levents_post_A
Excess_control25average	-0.0047	-0.0371	-0.0243
	(0.029)	(0.025)	(0.023)
Closingprice_B	-0.0027		
	(0.004)		
Volume_B	0.0000		
	(0.000)		
Company_size	-0.0384	-0.0638	-0.0682
	(0.422)	(0.468)	(0.201)
Trades_A	0.0002**	0.0001	0.0000
	(0.000)	(0.000)	(0.000)
Volatility_B	58.1937**		
	(25.149)		
Closingprice_A		-0.0072	-0.0055**
		(0.005)	(0.003)
Volume_A		-0.0000	0.0000
		(0.000)	(0.000)
Volatility_A		125.4586***	86.9858**
		(37.727)	(35.858)
Constant	-5.7583	-3.0221	2.3938
	(9.604)	(10.495)	(4.856)
Observations	202	191	239
R-squared	0.0607	0.1102	0.0605
Number of Corporate_id	25	25	25
Adj. R-squared	.	.	.

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_B	(2) levents_ev_B	(3) levents_post_B
Excess_control25average	0.0026	0.0192	0.0040
	(0.014)	(0.016)	(0.014)
Closingprice_B	-0.0035*	-0.0012	-0.0001
	(0.002)	(0.002)	(0.002)
Volume_B	0.0000	0.0000	0.0000***
	(0.000)	(0.000)	(0.000)
Trades_B	0.0000	-0.0000	-0.0001**
	(0.000)	(0.000)	(0.000)
Analysts	-0.0897	-0.2881	-0.0699
	(0.449)	(0.229)	(0.246)
Company_size	-0.1761	-0.2488**	-0.2357**
	(0.119)	(0.120)	(0.108)
Volatility_B	-7.9578	-19.2609**	-12.9584
	(8.828)	(8.954)	(8.308)
Constant	-0.9538	1.7488	5.1272*
	(3.668)	(2.849)	(2.738)
Observations	1,288	1,194	1,347
R-squared	0.0140	0.0176	0.0182
Number of Corporate_id	148	148	149
Adj. R-squared	.	.	.

VARIABLES	(1) levents_pre_A	(2) levents_ev_A	(3) levents_post_A
Excess_25foundfam	-0.0565	-0.0491	-0.0615
	(0.061)	(0.066)	(0.054)
Closingprice_A	0.0002	-0.0068	-0.0060*
	(0.004)	(0.005)	(0.003)
Volume_A	0.0000	0.0000	-0.0000
	(0.000)	(0.000)	(0.000)
Trades_A	0.0001	0.0001	0.0001
	(0.000)	(0.000)	(0.000)
Company_size	0.1287	-0.0652	-0.0282
	(0.432)	(0.475)	(0.212)
Volatility_A	98.3770**	99.3378**	93.8162**
	(43.390)	(39.944)	(41.073)
Constant	-7.1799	-2.1688	2.8273
	(9.707)	(10.548)	(5.252)
Observations	164	160	199
R-squared	0.0812	0.1014	0.0577
Number of Corporate_id	21	21	21
Adj. R-squared	.	.	.

VARIABLES	(1) levents_pre_A	(2) levents_ev_A	(3) levents_post_A
Excess_25nonfoundfam	0.0550	-0.0917*	-0.0217
	(0.068)	(0.053)	(0.053)
Closingprice_A	-0.0007	-0.0082**	-0.0044
	(0.003)	(0.003)	(0.003)
Volume_A	0.0000	0.0000	0.0000
	(0.000)	(0.000)	(0.000)
Trades_A	0.0001	0.0001	0.0001
	(0.000)	(0.000)	(0.000)
Board_memb	0.3344	0.3034	0.1051
	(0.253)	(0.216)	(0.207)
Board_meet	-0.0007	0.1289*	0.0268
	(0.074)	(0.068)	(0.067)
Board_dep_c	-0.3613	0.0582	-0.1049
	(0.258)	(0.259)	(0.224)
Board_dep_ms	0.1499	-0.1029	0.2841
	(0.251)	(0.245)	(0.222)
Board_committees	1.3382	2.5537***	1.9541*
	(1.122)	(0.980)	(1.140)
Audit_memb	-0.0102	0.0457	0.0829
	(0.185)	(0.161)	(0.149)
Audit_meet	0.0307	-0.1864	-0.1646
	(0.142)	(0.127)	(0.123)
Audit_dep_c	-0.4279	0.0232	0.5956
	(0.732)	(0.357)	(0.375)
Audit_dep_ms	0.3340	0.1216	-0.0024
	(0.371)	(0.319)	(0.316)
Volatility_A	122.3516***	107.3904***	109.3549***
	(45.474)	(39.937)	(38.742)
Constant	-12.9883***	-10.4854***	-4.0509
	(3.649)	(3.055)	(3.208)
Observations	200	203	244
R-squared	0.1107	0.1940	0.1068
Number of Corporate_id	26	26	26
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_A	(2) levents_ev_A	(3) levents_post_A
Excess_25nonfoundfam	0.0556	-0.0712	-0.0154
	(0.068)	(0.053)	(0.054)
Closingprice_A	0.0005	-0.0079*	-0.0050*
	(0.004)	(0.005)	(0.003)
Volume_A	0.0000	0.0000	0.0000
	(0.000)	(0.000)	(0.000)
Trades_A	0.0001	0.0001	0.0001
	(0.000)	(0.000)	(0.000)
Company_size	0.0946	-0.0241	-0.0476
	(0.451)	(0.477)	(0.215)
Volatility_A	103.5547**	86.6120**	79.9323**
	(42.323)	(38.171)	(37.936)
Constant	-9.4218	-2.3008	2.1037
	(10.474)	(10.721)	(5.581)
Observations	183	178	220
R-squared	0.0746	0.1110	0.0510
Number of Corporate_id	23	23	23
Adj. R-squared	.	.	.

VARIABLES	(1) levents_pre_A	(2) levents_ev_A	(3) levents_post_A
Excess_25inst	0.0823	0.0234	-0.0691
	(0.087)	(0.077)	(0.206)
Closingprice_A	-0.0009	-0.0080**	-0.0045
	(0.003)	(0.003)	(0.003)
Volume_A	0.0000	0.0000	0.0000
	(0.000)	(0.000)	(0.000)
Trades_A	0.0001	0.0001	0.0001
	(0.000)	(0.000)	(0.000)
Board_memb	0.3578	0.2599	0.0873
	(0.253)	(0.217)	(0.208)
Board_meet	0.0029	0.1155*	0.0312
	(0.074)	(0.068)	(0.069)
Board_dep_c	-0.3646	0.0856	-0.1068
	(0.257)	(0.262)	(0.225)
Board_dep_ms	0.1367	-0.0773	0.2912
	(0.251)	(0.249)	(0.223)
Board_committees	1.2492	2.6747***	1.9906*
	(1.122)	(0.986)	(1.137)
Audit_memb	-0.0044	0.0461	0.0807
	(0.185)	(0.162)	(0.149)
Audit_meet	0.0035	-0.1655	-0.1510
	(0.143)	(0.129)	(0.126)
Audit_dep_c	-0.4504	0.0644	0.6061
	(0.733)	(0.360)	(0.377)
Audit_dep_ms	0.3485	0.0922	-0.0182
	(0.371)	(0.322)	(0.318)
Volatility_A	110.6891**	113.1723***	112.0009***
	(46.165)	(40.757)	(39.062)
Constant	-12.7204***	-13.0914***	-3.5080
	(3.422)	(2.969)	(4.378)
Observations	200	203	244
R-squared	0.1121	0.1797	0.1065
Number of Corporate_id	26	26	26
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_A	(2) levents_ev_A	(3) levents_post_A
Excess_25inst	0.0869	0.0092	-0.0885
	(0.085)	(0.075)	(0.187)
Closingprice_A	0.0005	-0.0075	-0.0050*
	(0.004)	(0.005)	(0.003)
Volume_A	0.0000	0.0000	0.0000
	(0.000)	(0.000)	(0.000)
Trades_A	0.0001	0.0001	0.0001
	(0.000)	(0.000)	(0.000)
Company_size	0.0341	-0.0379	-0.0237
	(0.450)	(0.482)	(0.209)
Volatility_A	92.4011**	90.6566**	84.6813**
	(42.683)	(39.189)	(38.501)
Constant	-7.9535	-4.0082	2.6347
	(10.170)	(10.715)	(5.607)
Observations	183	178	220
R-squared	0.0769	0.1002	0.0517
Number of Corporate_id	23	23	23
Adj. R-squared	.	.	.

VARIABLES	(1) levents_pre_A	(2) levents_ev_A	(3) levents_post_A
Excess_25corp	0.4023	-0.0045	0.0041
	(0.327)	(0.252)	(0.138)
Closingprice_A	0.0000	-0.0083*	0.0026
	(0.004)	(0.005)	(0.004)
Volume_A	-0.0000	-0.0000	-0.0000
	(0.000)	(0.000)	(0.000)
Trades_A	0.0023	0.0004	-0.0039
	(0.003)	(0.001)	(0.003)
Board_memb	-0.0645	0.2911	0.1369
	(0.398)	(0.354)	(0.305)
Board_meet	-0.0049	0.0567	0.0705
	(0.103)	(0.094)	(0.098)
Board_dep_c	-0.3434	-0.1212	-0.3017
	(0.507)	(0.512)	(0.457)
Board_dep_ms	0.8503*	0.5268	0.4542
	(0.483)	(0.478)	(0.368)
Board_committees	2.3019	2.4637*	2.3649
	(1.505)	(1.420)	(1.770)
Audit_memb	0.2164	0.3455	0.3251
	(0.242)	(0.242)	(0.214)
Audit_meet	-0.5564*	-0.5989*	-0.3797
	(0.291)	(0.312)	(0.259)
Audit_dep_c	-1.1930	-1.3738	0.4554
	(1.626)	(1.434)	(1.276)
Audit_dep_ms	-1.0512	-1.0307	-0.6982
	(0.801)	(0.766)	(0.686)
Volatility_A	39.8815	53.2020	68.7015
	(66.940)	(64.991)	(57.850)
Constant	-12.9226**	-8.8454	-3.9953
	(6.184)	(6.071)	(4.602)
Observations	101	95	120
R-squared	0.1767	0.2757	0.1745
Number of Corporate_id	12	12	12
Adj. R-squared	.	.	.

VARIABLES	(1) levents_pre_A	(2) levents_ev_A	(3) levents_post_A
Excess_25corp	0.2378		0.0104
	(0.313)		(0.142)
Closingprice_A	-0.0007	-0.0084	0.0020
	(0.005)	(0.006)	(0.004)
Volume_A	-0.0000	-0.0000	-0.0000
	(0.000)	(0.000)	(0.000)
Trades_A	0.0022	0.0034	-0.0045
	(0.005)	(0.007)	(0.003)
Company_size	0.2477	0.4468	0.0902
	(0.488)	(0.558)	(0.425)
Volatility_A	46.4996	60.3222	74.3513
	(57.767)	(56.799)	(53.619)
Constant	-13.0153	-12.0131	-0.4810
	(11.986)	(11.571)	(9.562)
Observations	90	80	106
R-squared	0.0241	0.0695	0.0552
Number of Corporate_id	10	10	10
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_B	(2) levents_ev_B	(3) levents_post_B
Excess_25foundfam	0.0588*	0.0924**	0.0356
	(0.034)	(0.038)	(0.035)
Closingprice_B	-0.0036*	-0.0006	-0.0002
	(0.002)	(0.002)	(0.002)
Volume_B	0.0000	0.0000	0.0000**
	(0.000)	(0.000)	(0.000)
Trades_B	0.0000	-0.0000	-0.0000
	(0.000)	(0.000)	(0.000)
Analysts	-0.0898	-0.2964	-0.0697
	(0.441)	(0.229)	(0.245)
Company_size	-0.1627	-0.2376**	-0.2516**
	(0.118)	(0.121)	(0.109)
Volatility_B	-6.8376	-21.4495**	-13.6378
	(8.889)	(9.215)	(8.506)
Constant	-2.6540	-0.3982	4.6917*
	(3.412)	(2.900)	(2.739)
Observations	1,228	1,133	1,274
R-squared	0.0176	0.0235	0.0186
Number of Corporate_id	140	140	141
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_B	(2) levents_ev_B	(3) levents_post_B
Excess_25nonfoundfam	0.0678***	0.0104	0.0160
	(0.024)	(0.024)	(0.023)
Closingprice_B	-0.0051***	-0.0042**	-0.0039**
	(0.002)	(0.002)	(0.002)
Volume_B	0.0000	0.0000	0.0000**
	(0.000)	(0.000)	(0.000)
Trades_B	0.0000	-0.0000	-0.0001*
	(0.000)	(0.000)	(0.000)
Board_memb	-0.0077	0.0727	-0.0793
	(0.063)	(0.066)	(0.058)
Board_meet	0.0261*	0.0058	0.0152
	(0.016)	(0.013)	(0.013)
Board_dep_c	0.1955**	0.1654*	0.1581**
	(0.086)	(0.087)	(0.075)
Board_dep_ms	0.1087	0.0683	0.0260
	(0.076)	(0.079)	(0.074)
Board_committees	-0.1055	-0.2457	-0.1354
	(0.156)	(0.155)	(0.153)
Audit_memb	0.0493	0.0875	0.0968**
	(0.053)	(0.053)	(0.048)
Audit_meet	-0.0354	0.0179	-0.0020
	(0.027)	(0.030)	(0.028)
Audit_dep_c	-0.1458	-0.1675	-0.2763**
	(0.134)	(0.128)	(0.123)
Audit_dep_ms	-0.0697	-0.0950	-0.2181**
	(0.113)	(0.118)	(0.103)
Analysts	-0.0811	-0.2651	-0.0812
	(0.437)	(0.227)	(0.244)
Volatility_B	-8.0339	-15.9229*	-5.2223
	(8.032)	(8.168)	(7.661)
Constant	-6.6428***	-4.3867***	0.1508
	(2.385)	(1.399)	(1.492)
Observations	1,471	1,380	1,558
R-squared	0.0260	0.0214	0.0253
Number of Corporate_id	164	164	164
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(1) levents_pre_B	(2) events_ev_B	(3) events_post_B
Excess_25inst	0.0024	-0.0001	-0.0103
	(0.042)	(0.001)	(0.159)
Closingprice_B	-0.0036*	-0.0000	0.0050
	(0.002)	(0.000)	(0.008)
Volume_B	0.0000	0.0000	0.0000
	(0.000)	(0.000)	(0.000)
Trades_B	0.0000	-0.0000	-0.0000
	(0.000)	(0.000)	(0.000)
Analysts	-0.0913	-0.0030	-0.0833
	(0.445)	(0.008)	(1.227)
Company_size	-0.1565	0.0045	0.2129
	(0.118)	(0.003)	(0.462)
Volatility_B	-6.8819	0.0323	2.7699
	(8.824)	(0.240)	(36.007)
Constant	-1.4450	-0.0787	-4.2264
	(3.509)	(0.082)	(12.346)
Observations	1,265	3,121	3,121
R-squared	0.0135	0.0011	0.0005
Number of Corporate_id	145	147	147
Adj. R-squared	.	.	.

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

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