# At the Origins of the Non-Voting Shares' Discount: Investor Preferences vs. Fundamentals* 

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#### Abstract

An intense debate on the use of non-voting shares developed in the UK in the second half of the twentieth century. Using a unique hand-collected dataset, we ask to what extent variations in firms' fundamentals, vis a vis changes in investor preferences toward non-voting shares, explain the relative price of voting and nonvoting shares (i.e., the voting premium). We show that negative news coverage of dual class firms is associated to an increase in the voting premium even if no new material information has been revealed. Furthermore, a higher voting premium and negative news for dual class firms are followed by lower returns for voting shares than for non-voting shares suggesting a reversion to fundamentals. These results indicate that, during this period, market participants may have started to consider nonvoting shares as inferior claims and that this limited firms' ability to use dual class shares. Keywords: Corporate Governance; Dual Class Shares; Public Opinion; Investor Preferences


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## 1. Introduction

Many companies around the world use dual class shares, that is, share structures that deviate from the principle of one-share-one-vote (henceforth, dual class firms). The discount at which non-voting (and limited-voting) shares usually sell is often attributed to fundamentals, as shareholders with limited voting rights are expected to appropriate a lower proportion of the firm's future cash flows (see, for instance, Zingales, 1994 and 1995; Hauser and Lauterbach, 2004). ${ }^{1}$ This would cause a voting premium to emerge.

In this paper, we ask to what extent variations in firms' fundamentals, vis a vis a change in investors' preferences toward non-voting shares, explain the time-series and cross-sectional variation in the voting premium. We use a unique dataset capturing 15 years of intense debate on dual class shares in the UK, starting from the mid-fifties.

This period offers a unique opportunity to understand the determinants of the voting premium because, for the first time, institutional investors, having acquired importance in the UK capital markets, started to voice a concern regarding the exclusion of a subset of shareholders from corporate decisions. Today, institutional investors are well-known to favor one-share-one-vote share structures and to avoid holding non-voting shares (Giannetti and Simonov, 2006; Li, Ortiz-Molina and Zhao, 2008; Leuz, Lins and Warnock, 2009; McCahery, Sautner and Starks, 2010). Thus, while today opinions and investor clienteles are crystallized, making more difficult the identification of their drivers, in the UK of the mid-fifties, the concerns voiced by some institutional investors stimulated an intense debate on the role of dual class shares that unfolded over a period of 15 years.

[^1]Furthermore, during our sample period, an active market for hostile takeovers emerged for the first time in the UK. Proxy fights and M\&A events are known to have a positive effect on the value of the vote (Kalay, Karakas and Pant, 2012) and, during our sample period, they can be viewed as an unexpected change in fundamentals that penalized non-voting shareholders because bidders could acquire a target firm by purchasing only the voting shares at a premium. We can therefore easily identify to what extent changes in the voting premium are associated to changes in firm fundamentals.

We explore how the opinions voiced by different bodies are associated with changes in the relative prices of voting and non-voting shares and their subsequent returns. We show that there exists large time-series and cross-sectional variation in the voting premium, which is close to zero in the mid-50s and exhibits large increases and reversals between 1955 and 1970. Even more surprisingly, the voting premium moves synchronously across firms in a way that cannot be explained by firms' characteristics predicting the ability of voting shareholders to appropriate a larger proportion of the firm's future cash flows, such as a firm's probability of being acquired, the number of acquisitions in a given period, the firm's corporate governance, operating performance, and payout policies.

The synchronous changes in the voting premium appear to be related to the tone of the debate on dual class shares. In particular, news that can be considered negative for dual class firms increase the voting premium even if they do not reveal any new material information. One possibility is that news against dual class shares proxy for negative information about the future cash flows accruing to shareholders with limited voting rights. This is possible if the information is not captured by our controls. An alternative explanation is that the news could capture investor preferences towards
non-voting shares that shift over time in a way that is unrelated to corporate fundamentals.

To distinguish between these two hypotheses, we perform several tests. First, the effects are stronger for firms with illiquid stocks, which are presumably more difficult to arbitrage. Second, we show that the increases in the voting premium are driven exclusively by a decrease in the price of non-voting shares. Any unexpected increase in the benefits accruing to voting shareholders (or a transfer from non-voting to voting shareholders) should also lead to an increase in the price of voting shares that we do not observe. Thus, our results are more consistent with lower demand for non-voting shares leading to lower prices for these stocks and a higher voting premium.

Third, we explore whether the differences in prices of voting and non-voting shares are justified by ex post returns. If news coverage reveals information about the future cash flows of non-voting shares, we expect that the prices of voting and nonvoting shares will reflect future returns and, in particular, that voting and non-voting shares will offer on average equal returns. If news coverage instead reflects investor preferences, unrelated to fundamental information, we should expect that the price difference between voting and non-voting stocks will not be justified by ex post returns. In particular, a higher voting premium should be associated to higher subsequent returns for non-voting shares. In other words, the voting premium should be systematically reversed, especially after periods of negative news coverage towards non-voting shares.

We find evidence that a higher voting premium is related to lower returns for voting shares than for non-voting shares over the next quarter (six months). Similarly, news coverage against dual class firms increase the voting premiums, but is
systematically associated to lower returns for voting shares relative to non-voting shares over the next quarter. These findings indicate that changes in the voting premium are unlikely to be explained by changes in the relative magnitude of the benefits accruing to voting and non-voting shareholders, an interpretation that is confirmed by the fact that there are no major differences in corporate governance or operating performance between dual class firms and the control firms with single share structure.

We argue that the debate on dual class shares may have affected or reflected investor preferences against non-voting shares. At the time of the debate, market participants may have started considering stocks without voting rights as inferior claims. Ultimately, a norm in favor of one-share-one-vote may have emerged and led to a voting premium and companies to avoid the use of multiple share structures.

Our paper is related to a strand of literature that using mostly cross-sectional evidence relates the voting premium to firm ownership structure, corporate governance and the probability of a proxy context (see, for instance, Zingales, 1994 and 1995; Hauser and Lauterbach, 2004; Kalay, Karakas and Pant, 2012). Using a longer time-series, we show that investor preferences, may contribute to explain the voting premium.

In this respect, our paper is related to a strand of literature highlighting that investors select stocks not only on the basis of risk and return, but also of other firms characteristics not necessarily related to returns-such as growth prospects and their familiarity with the nature of the business (Grinblatt and Keloharju, 2001; Huberman, 2001; Falkenstein, 1996). Existing literature has shown that portfolio investors prefer one-share-one-vote share structures. Our findings suggest that investors preferences against one-share-one-vote are at least not entirely driven by expected returns and
indicate the consequences of investor preferences for stock prices and returns. Our findings are also consistent with Hong and Kacperczyk (2009) who provide evidence that investors' preferences against holding firms producing alcohol, tobacco, and gaming lead to lower prices and higher returns for these"sin" stocks.

Our tests are particularly compelling because we are able to compare the stock prices of the same firm, whose differences may depend only on voting rights, while being able to control for virtually all determinants of the value of a vote. The evidence of mispricing we uncover is related to similar evidence on twin stocks -stocks of the same firm listed in different stock exchanges- (Froot and Dabora, 1999) and the close end funds discount (Lee, Shleifer and Thaler, 1991).

Our findings are also consistent with Schultz and Shive (2010), who using intraday data show that investors shift their trading patterns to take advantage of price discrepancies between dual classes of shares. Like ours, Schultz and Shive’ findings indicate that the voting premium may be at least partially due to mispricing. We highlight, however, that this mispricing may be persistent.

Others have shown that public opinion as captured by media coverage affect asset prices (Huberman and Regev, 2001; Tetlock, 2007; Engelberg and Parsons, 2011) as well as corporate governance (Dyck, Volchkova, and Zingales, 2008; Kuhnen and Niessen, 2012). We show that public opinion may be associated to investor preferences against certain forms of financing (such as dual class shares) and that this may affect prices, firms' ability to use certain forms of financing as well as firms' capital structure. It is not our objective, however, to identify the causal effect of media coverage on the relative prices of voting and non-voting shares, but rather how public opinion -which is both reflected and shaped by news coverage-may affect investor demand and the relative price of securities.

Our paper also contributes to the literature on dual class shares. Theory provides many rationales for the use of dual class shares (Burkart and Lee, 2008). Notably, dual class shares can ensure the control of the firm allowing the management to take a long-term view on investment (De Angelo and De Angelo, 1985). However, institutional investors strongly oppose the use of dual class shares, which they argue allow insiders to enjoy private benefits of control at the expense of minority shareholders. It remains unclear why the discount at which non-voting shares generally trade should not compensate minority shareholders for the (expected) extraction of private benefits. Our findings square well with the inconclusive evidence on whether dual class shares have a negative causal impact on firm performance (Adams and Ferreira, 2008). ${ }^{2}$

The remainder of this paper is organized as follows. Section 2 describes the institutional background. Section 3 describes the debate on dual class shares and the way in which we classify the news. Section 4 describes sample construction and data sources. Section 5 presents the empirical analysis. Section 6 concludes.

## 2. Institutional Background

Stock markets and equity issuances played an important role in the funding of UK companies since the $19^{\text {th }}$ century. By 1950, when our sample starts, the companies listed in the London Stock Exchange had highly dispersed ownership. For instance, Franks, Meyer and Rossi (2009) document that ownership concentration declined in the UK during the first half of the twentieth century. They find that ownership concentration (measured as the proportion of shares held by the top 3

[^2]shareholders) was about $63 \%$ in 1900 and only $33.83 \%$ in 1950. Other studies using different samples provide evidence suggesting that ownership was dispersed even at the beginning of twentieth century. For instance, Hannah and Foreman-Peck (2011) show that the average holding of companies’ directors was $8.1 \%$ already in 1911. Braggion and Moore (2011) show that the average holdings of the Top 3 shareholders between 1895 and 1905 was $24 \%$. All these papers imply that during our sample period ownership was already highly dispersed. Thus, changes in ownership concentration are unlikely to have driven the changes in the voting premium we observe.

Even if they owned only minority stakes, during the first half of the twentieth century, families had maintained control of listed companies with a disproportionate representation on the board and, increasingly after up to the 1950s, with dual class shares (Franks, Mayer, Rossi, 2005 and 2009). Companies issued both ordinary nonvoting shares and preference shares. The latter gave (non-voting) shareholders right to a preferential dividend. Table 1 shows the proportion of commercial and industrial firms complying with the "one share one vote principle" in snapshots starting from 1896 until $1986 .{ }^{3}$

The proportion of firms with dual class shares increased in the earlier part of the sample, possibly because, in the later nineteenth century, the London Stock Exchange required to place at least $2 / 3$ of any security to the public in any public issue. This rule ensured that there was sufficient liquidity, but made difficult the formation of controlling blocks (Hannah 2007). The main way to preserve control in a listed company was to issue non-voting or preferences shares to the public, while the

[^3]controlling shareholders kept the majority of voting shares (Cheffins, 2008, pp. 226227).

The proportion of firms with equal voting rights declined to $41 \%$ during the period between 1958 and 1964, which, as we show below, coincided with the debate on the use of dual class share structures. The debate may have led many firms to unify their different classes of shares into a single class guaranteeing full voting rights. However, the proportion of one-share-one-vote firms rose again after 1964 reaching 50\% in both 1970 and 1980 and arriving to 57\% in 1984.

During this period, the 1948 Company Act allowed for proxy voting and made provisions for shareholders holding $10 \%$ of the votes to force an extraordinary general meeting of shareholders. The 1948 Company Act also introduced disclosure rules for prospectuses and specific penalties for non-disclosure, required detailed provisions regarding the content and form of balance sheets and profit and loss accounts and that company accounts be prepared with the aim of giving a "true and fair" view of a company's financial position (Cheffins, 2008, pp. 356-360). Arguably as a consequence of these changes, starting from the 50s, institutional investors had started owning a large proportion of stocks, previously directly owned by retail investors (Cheffins, 2008, pp. 344-345).

During the same period, an active market for hostile takeovers emerged for the first time in the UK (Cheffins, 2008, pp. 307-308). This can be viewed as a change in fundamentals favoring the holders of voting shares because (up to 1968) bidders could acquire a target purchasing only voting shares at a premium. Thus, expected additional payments accruing to the holders of voting shares could have determined the increase in the voting premium.

This historical context is particularly appropriate to study the determinants of the voting premium not only because the emergence of a market for takeovers and the differences in the probability of being acquired for different firms allow us to capture the predominant source of any changes in the security benefits accruing to different shareholders, but also because of the intense debate on dual class shares, which allows us to capture the swings of public opinion and hence investors' preferences towards non-voting shares.

## 3. The debate on non-voting shares

We search the Times Digital Archive for news regarding dual class shares using the words "voting shares", "non-voting shares", "voteless shares", "restricted voting rights" and "limited voting rights" from 1950 to 1970. The terminology "dual class shares" was not used at that time and yields no results.

We read the news in chronological order and classify them according to their tone towards dual class shares. The approach of using the media to quantify investor attitudes is similar to Tetlock (2007), who shows that media pessimism predicts downward pressure on market prices followed by a reversion to fundamentals. Our objective, however, is not much establishing the causal impact of media coverage, but whether investor preferences, which are naturally both reflected and shaped by the public debate, affect the cost of different forms of external finance and ultimately corporate governance. In this respect, our objective is closer to Kuhnen and Niessen (2012), who explore how public opinion is associated with executive compensation.

In the first half of the fifties, the only news involving non-voting shares regard equity issues, which appeared to proceed smoothly. We deem these stories as irrelevant and exclude them from the analysis for the all sample period (and from the
count of the relevant news). Our final sample consists of 112 (relevant) stories. Out these, 49 are opinions publicly stated by authoritative figures either in the business or in the political worlds such as institutional investors, the Board of Trade or Members of Parliamentary Committees. The remaining 63 are news related to specific companies and their handling of non-voting shares: for instance, news about share unifications or problems regarding the issuance of non-voting shares. As we explain below, in most of our tests, we only exploit news capturing opinions and neglect the ones related to specific companies.

While the number of news may appear small with respect to papers exploring the role of media on asset prices in more recent samples, we want to stress the following crucial differences. First, the methodology is different. We read all news. The number of news we report includes only relevant stories, providing either positive or negative coverage of dual class shares, and excludes neutral or irrelevant stories, such as smooth equity issues, routine announcements of dividends paid to voting and non-voting shares etc., which would typically inflate the count of news in papers relying on computer algorithms to classify how negative or positive a story is. In this respect, our methodology is more similar to Bhattacharia, Galpin, Ray and Yu (2009).

Second, the volume of news during our sample period was much smaller than nowadays. It is quite telling that the number of pages of the Times increased by nearly 600\% from 1955 to 2004. Finally, we do not explore the effect of the media on daily swings in asset prices, but rather monthly changes in the voting premium reflecting slower-to-change opinions of market participants on a particular form of governance.

### 3.1 Evolution of the Debate

The debate on dual class shares appear to have started on February 1956, when the quotations’ committee of the London Stock Exchange, following the advice of the

Chartered Institute of Secretaries, a professional association, recommended for the first time that non-voting shares are explicitly designated as such (Times, February 1, 1956). ${ }^{4}$ The announcement also mentioned that this was not a necessary condition for obtaining a listing and that shares with restricted voting rights were not recommended to report any explicit wording.

The changing climate for non-voting shares is reflected in other news during the same month. For instance, on February 26, 1956, the retiring president of the Chartered Institute of Secretaries held a speech on the dangers posed by non-voting shares. Similarly, on August 1, 1957, at the Annual meeting of The Trustees Corporation Limited, an institutional investor, the fund manager stated: "I refer to the practice that is becoming increasingly prevalent of issuing non-voting ordinary shares. (...) I deprecate this practice. (...) It is surely right that all those who own the risk bearing capital should be entitled to share in the control of the company". We categorize this and similar stories among the negative news.

Over the next two years, almost every month, there were stories that provided negative coverage of limited voting rights. The news mostly refers to institutional investors that express an opinion against dual class shares in their annual meeting. Some companies also started unifying the different share classes and provided voting rights to all shareholders or were unable to recapitalize the non-voting shares. The coverage of these events may have not only reflected a general sentiment of market participants in favor of one-share-one-vote, but may also have pushed investor

[^4]preferences in this direction. We classify also these stories as negative news coverage, but we use them only in a subset of our tests.

Starting from 1959, we find stories that justify the use of limited voting rights. For instance, on July 27, 1959, in a public statement, the exchange expresses supports for shares with restricted voting rights, especially if they give right to a preferential payment of dividends. Another story published on November 13, 1959 justifies the use of dual class shares on the ground that nobody is obliged to buy non-voting shares. Acceptance of dual class shares is reinstated by the Jenkins Committee, which in the summer 1960 argues that it may be desirable that control is retained by insiders and non-voting shares are issued, especially in small family firms. News with the same tone follow. However, institutional investors still refuse to participate in the issuance of new shares involving restricted voting rights and an animated debate ensues with the Institute of Directors advocating for dual class shares and the London Stock Exchange issuing a pronouncement that it would be wrong to refuse to trade non-voting shares. Other bodies, such as the Board of Trade and the Institute of Secretaries, pronounce in favor of dual class share structures. Thus, companies start issuing again non-voting shares and put off unification plans.

The debate starts again in June 1964 when Chrysler purchases a stake in Rootes Motors, a deal that is judged favorably, but in which non-voting shareholders gain to a lower extent. Thus, in October 1964, we find a call for a new bill abolishing nonvoting shares and in the following months companies experience new problems in issuing non-voting shares and a few firms unify their different share classes. The debate starts again and follows substantially the same cycle as in the previous years.

The debate remains lively in the second half 1960s, but it tones down during the 1970s. After 1970, we find a very limited number of news concerning the desirability
of non-voting shares. The news also support the idea that opinions in the market have crystallized and dual class shares are now generally viewed as an inferior claim. For instance, the Times on May 30, 1970 reports that "The pragmatic stock market view is that voting shares deserve to be rated at a premium over non-voting shares". Similarly, on December 9, 1970, "the opinion in the City and industry has moved against differential votes". Taking this evidence in consideration, we end our sample period on December 31, 1970.

### 3.2 Classifying the Tone of the News

A common characteristic of most of the news we read is that they do not communicate any new material information that may affect expectations on the relative returns of voting and non-voting shares, but are mostly opinions that are often reiterated during the sample period and that may affect or reflect investor preferences against non-voting shares.

In most of the empirical analysis, we present results considering only stories capturing opinions, because -as Shiller (2000) and Tetlock (2007)- these news are less likely to be related to fundamental information, unavailable to market participants. Results are basically unchanged if we include news related to specific companies events.

We classify news reiterating known arguments against (in favor) of dual class shares as negative (positive) for non-voting shares. We also classify news that may communicate to market participants’ acceptance of limited voting rights, such as announcements of companies that decide to scrap plans of unifying dual class shares, as positive. ${ }^{5}$ However, the debate appears to be heavily skewed towards negative news. Out of the 112 relevant news, only 26 can be classified as positive. This

[^5]negative bias of the media is consistent with prior work (Green, Hand and Penn, 2011; Kuhnen and Niessen, 2012).

In what follows, we define a month to have negative (positive) news coverage if there is at least one story against (in favor of) dual class shares. We then explore whether the tone of the news during a month affects the voting premium, measured using end of month prices, thus effectively using the lagged news coverage. We control for changing macroeconomic conditions, such as the inflation rate, as well as for the fact that the volume of news may change, due to the development of communication technology, by including year fixed effects throughout the analysis of the voting premium and the stock returns.

## 4. Data

### 4.1 Sources and Sample Construction

To construct our sample, we obtain a list of companies listed in the London Stock Exchange from 1955 to 1970 from the London Share Price Database (henceforth, LSPD). The sample includes 2,166 companies and covers all the largest companies listed on the London Stock Exchange during this period plus a random $33 \%$ of the remaining firms. Although it does not provide complete coverage, the LSPD has been widely used in existing historical studies (see, for instance, Dimson, 1979), covers a representative sample of the companies listed on the London Stock Exchange during this period, and does not suffer from survivorship bias. From the LSPD, we also obtain data on prices and returns of ordinary voting shares at a monthly frequency, starting from January 1955.

Since the LSPD does not provide information on stocks' voting rights or prices on multiple share classes of the same firm, we hand-collect information on shares'
voting rights from the Stock Exchange Official Yearbook. The Yearbook was first published in 1875 with the purpose of providing information on joint stock limited liability companies quoted in the London Stock Exchange. It is regarded as the most authoritative source of information on the matter. We retrieve data on voting rights on an annual basis between 1956 and 1970 for all firms listed in the yearbook in the sections "Commercial and Industrial".

We then hand-collect prices and dividends of non-voting shares at monthly frequency, starting in January 1955 and ending December 1970, from the London Stock Exchange Daily Official List, available at the Guildhall Library in London. We collect data for both non-voting (or limited-voting) ordinary shares and non-voting preference shares. We record dividends, par value of shares and bid and ask prices in the last trading day of the month. The price of the non-voting shares is taken to be the average of the bid and ask prices.

Finally, we merge the information on share prices with the Cambridge/DTI Databank, which offers financial statements and other firm-specific information for UK publicly quoted companies in the commercial and industrial sectors between 1948 and 1990. Meeks and Wheeler (1999) provide a detailed description of this data source.

Table 2 summarizes the main variables in the analysis. Less than $10 \%$ of the dual class firms in our sample issued shares with limited voting rights, i.e. shares that grant a positive but smaller number of votes in comparison to the "voting" shares. Most dual class firms issued preference shares that either carried no voting rights or granted voting rights only in very specific circumstances, such as the liquidation of the company or a significant delay in the payment of the preference dividend. Even if
these eventualities occurred, the preference shareholders could usually vote only on a specific set of issues.

### 4.2 Stylized Facts

Following Zingales (1995) and Rydqvist (1996), in our benchmark results, we compute the voting premium as the price of a voting share issued by a firm minus the price of a non-voting share issued by the same firm, divided by price of the nonvoting share. For robustness, we also compute two additional proxies for the voting premium that take into account the number of votes each share grants and the differences in cash flow rights between voting and non-voting shares, respectively. The results we obtain using these two alternative definitions are very similar to those obtained in the benchmark case.

Figure 1 presents the evolution of the voting premium for our sample firms. It illustrates two points. First, although for the median firm the voting premium was zero at the beginning of the sample period, there was cross-sectional variation with some firms having a negative voting premium and others with a positive voting premium. We will attempt to capture this variation considering cross-sectional differences in firm characteristics. Second, and more importantly for our purposes, there appear to be large changes in the voting premium that are synchronous for firms with voting premium in the first, second and third quartile. This suggests that the changes in the voting premium are determined by factors affecting all firms. This evidence resembles the one on the close end fund discount, which is also known to move synchronously across different funds for reasons that are often considered to be related to investor sentiment (Lee, Shleifer, and Thaler, 1991).

In our context, however, the nascent market for hostile takeovers may have increased the expected cash flows accruing to voting shareholders and driven the
voting premium up for all firms. Figure 2 shows the evolution of the number of acquisitions during a year and the voting premium of the median firm. Strikingly, the two appear to be negatively correlated, strongly suggesting that the changes in voting premium and the opposition towards dual class shares were unrelated to the takeover waves of the second half of the fifties.

Instead, as shown in Figure 3, the voting premium seems to be strongly related to the intensity of the debate on dual class shares that we proxy using the number of news covering the one-share-one-vote rule. In what follows, we explore whether the tone of the news was related to changes in firm characteristics affecting the voting premium and the relative returns of voting and non-voting shareholders, or if instead it was related to investors' tastes for non-voting shares.

## 5. Results

### 5.1. The Voting Premium

Table 3 relates the voting premium to the tone of the news covering dual-class firms and the one-share-one-vote debate. ${ }^{6}$ Stories that provide arguments against the use of dual class shares tend to increase the voting premium. The effect is not only statistically significant, but also large from an economic point of view. The estimates in column 1 of Panel A in Table 3 imply that, during months with negative news coverage, the voting premium, which is 8 percentage points for the median firm, increases by 2.1 percentage points, that is, by over 25 percent.

We then test whether the news may reflect changes in market conditions or firm characteristics directly affecting the voting premium. For instance, news may be related to changes in market conditions or other events that affect both the news

[^6]coverage of dual class shares and the voting premium. We include the market return and the Fama-French factor portfolios, small-minus-big and high-minus-low, as controls to evaluate this possibility. ${ }^{7}$ Interestingly, the market return appears to be positively correlated with the voting premium indicating that the price of voting shares is relatively higher during good times. Since non-voting preference shares are often distributed dividends before voting shares, this is consistent with the fact that the returns for voting shareholders are higher when market conditions are stronger and firms have more profits to distribute. While the coefficient of the high-minus-low portfolio is not statistically significant, the return of the small-minus-big portfolio is positively associated with the voting premium. Thus, the voting premium appears higher when the portfolio of small firms performs relatively better and capital raising activities are arguably more frequent. Most importantly, our previous findings are unaffected and the effect of negative news coverage appears unrelated to systematic risk factors.

Another possible concern is that voting and non-voting shares have different exposure to liquidity risk and that aggregate liquidity is somewhat related to the debate on dual class shares. For this reason, in column 3, not only we control for the differences in liquidity between voting and non-voting shares, but we also test whether the impact of the news on the voting premium is larger for firms for which voting and non-voting shares have a larger difference in liquidity suggesting a different exposure to liquidity risk. While voting shares have lower valuations than non-voting shares if they have a higher bid-ask spread, the effect of negative news

[^7]coverage on the voting premium does not appear to depend on the difference in liquidity, suggesting that different exposure to liquidity risk of voting and non-voting shares is unlikely to explain our findings.

Another possibility is that the firms' probability of being target of an acquisition may increase and lead to a higher voting premium because bidders tend to purchase only voting shares. We estimate the probability that a firm in a given year is target of a takeover using time-varying firm characteristics, as detailed in Table 1, and then use the predicted probability as a proxy for the probability that the firm is taken over. Consistent with the preliminary evidence in Figure 2, however, we find no evidence of that (column 4 of Panel A in Table 3).

Similarly, as shown in column 5 of Panel A in Table 3, differences in dividends between voting and non-voting shares and their changes do not affect the impact of stories with negative coverage of dual class shares on the voting premium.

We also test whether there is an effect of stories justifying deviations from one-share-one-vote on the voting premium (column 6 of Panel A in Table 3). We find that positive coverage of dual class shares does not have a statistically significant effect on the voting premium. This is unsurprising because we have few positive news and is consistent with previous literature showing that only negative word counts have predictive power for aggregate stock returns (Tetlock, 2007).

In Panel B of Table 3, we explore whether changes in corporate governance, coincident with the tone of the debate on one-share-one-vote, may have determined changes in the voting premium. As we mention before, during this period, ownership of listed companies was already dispersed, making control highly contestable in principle. Entrenchment, however, may have occurred through the board of directors. In column 1 of Panel B in Table 3, family firms appear to have a lower voting
premium, possibly suggesting that control in these firms is less contestable. In column 2, we capture changes in the entrenchment of control using board directors' turnover. We find that the voting premium is larger in years with higher board turnover, but the coefficient is not statistically significant. Moreover, these controls do not affect the impact of negative news on the voting premium.

In column 3, we control for the amount of cash on the firm's balance sheet. Insiders may more easily divert cash than fixed assets and private benefits of control may be higher in firms with large amounts of cash. However, we find no evidence that this is the case, and most importantly, the voting premium continues to be higher in months with negative news coverage. In column 4 and 5, respectively, we control for firm age and size, as captured by the logarithm of market capitalization during the previous year. Younger firms are known to have somewhat more concentrated ownership since the founder may not have relinquished control yet. Consistent with the notion that control may be less contestable in young firms, in column 4, we find that the voting premium is higher in older firms. However, controlling for this effect leaves unaltered the impact of negative news on the voting premium.

More in general, in unreported results, we find that the effect of the news does not vary depending on firm characteristics, such as whether the firm is acquired during the following six months, whether the firm is a family firm, firm age etc., suggesting that the changes in the voting premium are unlikely to be differently related to control contests, as in this case we should observe large differences for firms with different governance or for firms whose control is indeed contested.

Finally, in column 6 of Panel B in Table 3, the coefficient of the negative coverage of dual class shares remains unaltered when we absorb time-invariant firm heterogeneity by including firm fixed effects.

In Table 4, we explore whether our results may be driven by share contractual characteristics. For instance, while most dual class firms issued non-voting shares, some had limited-voting shares. This may bias our estimate of the voting premium, although it is unclear whether it could drive its changes especially because our estimates are invariant when we include firm fixed effects. To mitigate any concerns, column 1 shows that our estimates are unaffected if we divide the premium, as defined in Table 3, by the difference in the number of votes between the two shares classes (the difference is just one for most firms).

In column 2, we also correct the voting premium for the few cases in which voting and non-voting shares have different cash flow rights. Estimates are once again unaffected.

In columns 3 and 4, we distinguish between non-voting ordinary shares and preference shares. The latter have right to the payment of a preferential dividend. For this reason, it was considered natural that preference shares had limited-voting rights. Also preference shares were never converted in ordinary shares and any discussion of regulation always entailed only non-voting and limited-voting ordinary shares. We find, however, that our results are invariant in both subsamples. This indicates that expectations of changes in regulation or of unifications cannot drive our findings.

In columns 5 and 6 , we consider whether changes in the voting premium are driven by changes in the price of voting or non-voting shares. All explanations of the voting premium based on fundamentals imply an increase in the benefits accruing to voting shareholders (for instance, because of a control contest) or a transfer from nonvoting to voting shareholders. Thus, we should observe that increases in the voting premium are driven by an increase in the price of voting shares, eventually accompanied by a decrease in the price of non-voting shares. If instead, news capture
investor preferences and a decrease in the demand for non-voting shares only the price of the latter is expected to decrease. This is precisely what we find. During months with negative news coverage of dual class shares, the price of non-voting shares is lower, but there is no statistically significant change in the price of voting shares.

If negative news coverage leads the prices of voting and non-voting shares to diverge in a way that is not warranted by fundamentals, we should observe that the effects of negative news coverage on the voting premium is larger for stocks that are difficult to arbitrage. An arbitrage would involve buying non-voting shares and shorting voting shares. The risk of such arbitrage is larger for firms with illiquid stocks, as is potentially more costly to unravel the position if needed. We measure the illiquidity of a firm's stocks using the sum of the bid ask spreads of voting and nonvoting shares. In column 7, we find that the effect of negative news coverage is indeed much larger for firms with more illiquid stocks, further supporting the notion that the changes in voting premium following negative news coverage are unlikely to be related to fundamentals.

### 5.2. The Relative Returns of Voting and Non-Voting Shares

In this subsection, we design a more direct test to explore whether news indeed capture investor preferences or if instead they are related to some risk factor rationally affecting the expectations on future returns. We conjecture that if the news coverage leads to a correct pricing of voting relative to non-voting shares, we should observe that the news are unrelated to the future relative returns of voting and non-voting shares, precisely because any information should already have been incorporated in prices. Even if news were slowly incorporated into prices, we would expect that the returns of the voting shares are higher than the returns non-voting shares following
negative news coverage, because news may approximate fundamental information about future cash flows, which is not immediately understood by market participants.

If instead we were to find that months with negative news coverage are followed by systematically lower returns for voting shares than for non-voting shares, it would appear that the news are related to too pessimistic expectations on the returns of non-voting shares. In this case, the higher voting premium would appear to be unjustified by ex post returns. It could thus be interpreted as capturing changes in investor preferences for share structures that deviate from the principle of one-share-one-vote.

The results in Table 5 strongly support the latter hypothesis. The estimates in column 1 indicate that months with negative stories on dual class firms predict lower returns over the next quarter for the voting shares of a firm relative to the non-voting shares of the same firm. The difference in quarterly returns is about 1.5 percentage points. This evidence suggests that market participants over-react to negative news and that changes in the relative price of voting and non-voting shares are then reversed.

In column 2, we capture investor preferences towards dual class shares using the voting premium. We find that months with a higher voting premium are systematically followed by quarters with lower returns of voting shares relative to non-voting shares. A standard deviation increase of the voting premium yields a differential of 6 percentage points between the returns of voting and non-voting shares. Thus, voting shareholders appear to obtain systematically lower returns in the quarter following a month with higher voting premium.

In column 3, we include both the negative news dummy and the voting premium and continue to find that months with a higher voting premium and negative
stories on dual class shares are followed by quarters with lower returns for voting shares than for non-voting shares. This also indicates that the news do not completely capture the change in investor tastes towards dual class shares.

In the remaining specifications of Table 5, we control for possible determinants of the different returns of voting and non-voting shares that could be correlated with the news or the higher voting premium. For instance, market participants could overestimate the probability of a takeover. Alternatively, following a high voting premium, firms may be more likely to increase the dividends received by non-voting shareholders or to award full-voting rights to all shareholders. If changes in dividend policies or unifications of different share classes are not completely anticipated, we could observe that non-voting shares have higher returns after periods in which firms with dual class shares receive negative news coverage and the voting premium is higher. This, however, would not be attributable to investor preferences, but rather to the fact that firms' reaction to negative news coverage and to a high voting premium is not fully anticipated.

Columns 4 and 5 of Table 5 show that controlling for the dividend differential of voting and non-voting shares leaves our results unaffected. In columns 6 and 7, we include a dummy that is equal to one if the firm is acquired in the following six months and equal to zero otherwise. Unsurprisingly in column 7, we find that in firms that are going to be acquired, voting shares experience higher returns. However, our main result remains unaffected and we continue to find that a high voting premium or negative news coverage of dual class firms are associated with too pessimistic expectations on the returns of non-voting shares. In unreported specifications, we also control for the probability that a firm is acquired. Our results are equally unaffected.

In columns 8 and 9, we test whether our results may be driven by share unifications. Firms may be more likely to unify their share classes if the voting premium increases because this may increase their cost of issuing equity or even prevent equity issuance. The unification announcement would then lead to the convergence of the price of voting and non-voting shares. To consider this possibility, we include a dummy that takes value equal 1 if the firm unifies the different classes of shares in the following six months. Unifications of different share classes appear to be preceded by lower returns for non-voting shares relative to voting shares. However, periods with higher voting premium and negative news coverage of dual class firms are still followed by lower returns for the voting shares of a firm relative to its nonvoting shares. ${ }^{8}$

Also months with positive news coverage of dual class firms are followed by higher returns for the voting shares relative to the non-voting shares of a firm, although the coefficient is not statistically significant at conventional levels (column 10).

A possible concern with our interpretation of the results is that the voting shares are more exposed to some systematic risk factor, related to negative news coverage and the voting premium. This is unlikely because voting and non-voting shares are claims on the same firm cash flows and differential exposure may only arise from the fact that non-voting shares are senior to non-voting shares in the payment of dividends. Nevertheless, when we control for the market return and the Fama-French factors, the coefficients of bad news and the voting premium are unchanged. For brevity we omit these estimates and instead report in column 11 an equation in which we absorb any monthly changes in market conditions by including calendar month

[^8]fixed effects. We still find that a higher voting premium predicts lower returns for voting than for non-voting shares. Importantly, in unreported estimates, we find that this effect is stronger for firms that are difficult to arbitrage, because they have highly illiquid stocks.

Finally, column 12 shows that our findings are independent of the particular time horizon we use to compute the relative returns of voting and non-voting shares. Even though the coefficient of bad news is no longer significant at conventional levels, we continue to find that a higher voting premium is followed by lower returns for voting shares if we consider returns over the next six months.

### 5.3. Firm Performance and Corporate Governance

In this subsection, we explore whether there are real differences between dual class and one class firms that may justify the voting premium. We also show that a larger number of stories against dual class shares during the previous year leads firms to unify their share classes.

Firms choose optimally whether to have dual class shares and it is hard to evaluate whether having a dual-class-share structure has a causal effect on performance. In our context, it may just be interesting to establish an association between a dual-class-share structure and corporate performance to evaluate whether dual class firms are worse along any dimension that may justify the voting premium.

Furthermore, the institutional context allows us to construct credible instruments. The negative news coverage of dual class firms led many firms to unify their share classes. Similarly, positive news coverage may make firms more likely to maintain their dual class share structure. In addition, there are fewer firms with dual class shares after acquisition waves. We use the number of positive news, the number of negative news and the number of acquisitions during the previous year as
instruments for whether a firm has dual class shares or not. We then explore to what extent a firm's performance (or corporate governance) difference from that of the average firm during that year depends on having dual class shares and a number of controls. Our instrument cannot have a direct impact on the dependent variable, which does not go through the firm's dual class or one class share status: Any systematic time effects would affect average firm performance, but there is no reason to expect that they would affect the deviation from the average firm performance.

Table 6 shows that our instruments are highly relevant and that indeed stories against dual class shares increase the probability that firms become one share one vote. However, having one-share-one-vote share structures does not translate in better performance, as measured by the firm's ROE, ROA, or investment. Similarly, firms with one-share-one-vote share structures do not seem to have better corporate governance. If anything, the turnover rate of directors is lower in these firms, although there is no difference in the sensitivity of turnover to performance. The only difference is that one class firms have lower leverage, possibly because having easier access to the equity market they have to rely to a lower extent on debt.

Focusing on dual class firms, we also explore to what extent the premium is associated to performance and corporate governance. ${ }^{9}$ As Table 7 shows, we find no evidence that a higher premium during the previous year is associated to worse performance or corporate governance. If anything, companies with higher premium experience slightly higher ROE and ROA. A standard deviation increase of the voting premium yields a 0.7 percentage points (4\%) increase in ROE. Results are similar if we use the contemporaneous level of the voting premium. Overall, there appear to be no evidence of higher extraction of private benefits of control in dual class firms and

[^9]in firms or years with high voting premium, corroborating our previous evidence that the changes in the voting premium are not always justified by fundamentals.

## 6. Conclusions

This paper shows that the debate on one-share-one-vote was related to the voting premium and that the changes in the voting premium were not justified by the ex post returns of different share classes. Furthermore, we find no evidence that companies with dual class shares or a higher voting premium have weaker corporate governance or are less profitable. Overall, this evidence suggests that investor preferences play a role in explaining the voting premium.

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## Table 1

This table presents the fraction of firms with one-share-one-vote share structure and the premium of the median firm for a number of years up to our sample period. The proportion of one-share-one-vote firms is computed complementing our dataset with earlier data from Braggion and Ongena (2012), which are available also from selected years.

| Variable | Statistic | 1896 | 1906 | 1916 | 1924 | 1938 | 1948 | 1958 | 1964 | 1968 | 1978 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| One <br> Share - <br> One Vote <br> $(0 / 1)$ | Mean | 0.55 | 0.58 | 0.56 | 0.56 | 0.48 | 0.46 | 0.41 | 0.41 | 0.45 | 0.52 |
|  | N |  |  |  |  |  |  |  |  |  |  |

## Table 2 <br> Descriptive Statistics

## Panel A. Monthly Variables

Premium is the price of a voting share issued by a firm minus the price of the non-voting share issued by the same firm divided by price of the non-voting share. Diff_ret is the difference in returns between voting and non-voting shares in the following 3 months. Bad news is a dummy variable that takes the value of 1 if in a certain month we recorded at least one negative story covering dual class shares.
Good news is a dummy variable that takes the value of 1 if in a certain month we recorded at least one positive story covering dual class shares. Bid Ask Spread Voting vs Non-voting is the difference between the bid-ask spread of voting and non-voting shares. Dividend Voting minus Non-Voting is the difference of the annual dividend (expressed as a percentage of the par value of shares) between voting and non-voting shares.

| VARIABLES | N | mean | sd | p 10 | p 50 | p 90 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| Premium | 36030 | 0.497 | 1.321 | -0.65 | 0.0816 | 2.177 |
| Diff_ret | 34846 | -0.00475 | 0.336 | -0.0896 | 0 | 0.105 |
| Bad news | 36030 | 0.13 | 0.336 | 0 | 0 | 1 |
| Good news | 36030 | 0.162 | 0.369 | 0 | 0 | 1 |
| Bid Ask Spread Voting minus Non-voting | 25836 | 0.0482 | 0.0238 | 0.0191 | 0.0459 | 0.0807 |
| Dividend Voting minus Non-Voting | 36030 | -0.00269 | 0.0314 | -0.0254 | -0.00639 | 0.023 |

## Panel B. Annual Variables

ROE is the total Profits (var66 in the Cambridge DTI databank) divided by Total capital and reserves (var60 in the Cambridge DTI databank). ROA is the total Profits (var66 in the Cambridge DTI databank) divided by Book value of assets (var60+var61 in the Cambridge DTI databank). Investment is the expenditure (less receipts) in tangible (var37) and intangible assets (var38) plus trade investments and investments in subsidiaries (var39) divided by book value of assets at the beginning of the year. Chairman's pay is the chairman's annual salary. Highest pay is the annual salary of the Highest Paid Director. Board turnover is the proportion of companies' directors that were replaced or dropped in the following two years. CEO turnover is a dummy variable that equals to 1 if the CEO of the company is replaced in the following two years. Leverage is the long-term liabilities (var8 in the Cambridge DTI databank) plus bank debt and overdrafts (var9 in the Cambridge DTI databank) divided by total capital and reserves. Oneshare is a dummy variable that takes the value of one if the firm's share structure complies to the one-share-one-vote principle and zero otherwise. Yearly bad news is the number of bad news for dual-class shares in a certain year. Yearly good news is the number of good news for dualclass shares in a certain year. Yearly number of acquisitions is the number of acquisitions in a certain year. Age is the firm's age in a certain year; The definition is based on the firm's year of birth provided by the Cambridge DTI databank. Size is the firm's book value of assets. Family is a dummy variable that takes the value of one if a firm is a family firm; Firms are defined as family firms if in their name appears the name of an individual, or the expressions "\& brothers", " \& sons" " \& nephews". Cash holdings is the cash (var21 in the Cambridge DTI databank) plus marketable securities (var19 in the Cambridge DTI databank) held by the firm divided by book value of assets. Prob being acquired is the estimated probability of a firm being a target of an acquisition. The probability is estimated using a probit model where the dependent variable equals 1 if a certain firm is acquired in a certain year. The independent variables are: the natural logarithm of the market capitalization of the firm, the natural log of the age of the firm, the leverage of the firm, the cash holdings of the firm, returns on equity of the firm, market to book ratio, a dummy variable indicating whether the firm is a subsidiary, and a dummy variable indicating whether the firm is a family firm; Market capitalization, leverage, cash holdings, returns on equity, market capitalization are one year lagged.

| VARIABLES | N | mean | sd | p 10 | p 50 | p 90 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| ROE | 5,492 | 0.207 | 0.128 | 0.0928 | 0.203 | 0.334 |
| ROA | 5,492 | 0.133 | 0.0719 | 0.0559 | 0.131 | 0.218 |
| Investment | 5,438 | 0.0799 | 0.159 | 0.00726 | 0.0500 | 0.158 |
| Chairman's pay | 5,492 | 971.4 | 4410 | 0 | 0 | 0 |
| Highest pay | 5,492 | 1254 | 5196 | 0 | 0 | 0 |
| Board turnover | 2,042 | 0.147 | 0.167 | 0 | 0.125 | 0.375 |
| CEO turnover | 1,328 | 0.331 | 0.471 | 0 | 0 | 1 |
| Leverage | 5,492 | 0.490 | 0.767 | 0 | 0.215 | 1.250 |
| Oneshare | 5,492 | 0.159 | 0.366 | 0 | 0 | 1 |
| Yearly bad news | 5,492 | 3.474 | 3.594 | 0 | 2 | 7 |
| Yearly good news | 5,492 | 5.042 | 5.390 | 0 | 2 | 13 |
| Yearly number of acquisitions | 5,492 | 63.68 | 32.49 | 34 | 55 | 124 |
| Age | 5,492 | 11.23 | 5.382 | 6 | 11 | 18 |
| Size | 5,492 | 26.33 | 105.6 | 0.878 | 5.282 | 49.04 |
| Family | 5,492 | 0.600 | 0.490 | 0 | 1 | 1 |
| Cashratio | 5,492 | 0.0880 | 0.0952 | 0.00362 | 0.0554 | 0.222 |
| Prob being acquired | 3,795 | 0.0487 | 0.0256 | 0.0179 | 0.0461 | 0.0817 |

## Table 3

The Voting Premium and the News Coverage of Dual class Firms
In all equations, the dependent variable is the voting premium of firm i during month $t$. All models include year fixed effects and a constant, but coefficients are not reported. The voting premium is winsorized at the $1 \%$ level. Standard errors presented in parentheses are corrected for heteroskedasticity and clustered at the firm level. $* * *$, ${ }^{* *}$, and * denote statistical significance at the 1,5 , and 10 percent, respectively.
Panel A. Basic Specifications

|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bad News | $\begin{gathered} 0.021^{* * *} \\ (0.005) \end{gathered}$ | $\begin{gathered} 0.028 * * * \\ (0.005) \end{gathered}$ | $\begin{gathered} 0.020^{* * *} \\ (0.007) \end{gathered}$ | $\begin{gathered} 0.028^{* * *} \\ (0.007) \end{gathered}$ | $\begin{gathered} 0.028 * * * \\ (0.007) \end{gathered}$ | $\begin{gathered} 0.028 * * * \\ (0.007) \end{gathered}$ |  |
| Bad News*Liquidity voting minus non-voting |  |  | $\begin{gathered} -0.867 \\ (1.385) \end{gathered}$ |  |  |  |  |
| Good News |  |  |  |  |  | $\begin{gathered} 0.019 \\ (0.023) \end{gathered}$ |  |
| All Bad News |  |  |  |  |  |  | $\begin{aligned} & 0.011^{*} \\ & (0.007) \end{aligned}$ |
| All Good News |  |  |  |  |  |  | $\begin{gathered} 0.007 \\ (0.013) \end{gathered}$ |
| Mkt Returns |  | $\begin{gathered} 1.223^{* * *} \\ (0.104) \end{gathered}$ |  |  |  |  |  |
| Small-minus-Big |  | $\begin{gathered} 2.286^{* * *} \\ (0.226) \end{gathered}$ |  |  |  |  |  |
| High-minus-Low |  | $\begin{aligned} & -0.126 \\ & (0.128) \end{aligned}$ |  |  |  |  |  |
| Liquidity voting minus non-voting |  |  | $\begin{gathered} -13.697 * * * \\ (1.154) \end{gathered}$ | $\begin{gathered} -15.126^{* * *} \\ (1.682) \end{gathered}$ | $\begin{gathered} -15.133^{* * *} \\ (1.694) \end{gathered}$ | $\begin{gathered} -15.133^{* * *} \\ (1.693) \end{gathered}$ | $\begin{gathered} -15.131 * * * \\ (1.693) \end{gathered}$ |
| Prob. being Acquired |  |  |  | $\begin{gathered} 0.860 \\ (2.126) \end{gathered}$ | $\begin{gathered} 0.886 \\ (2.151) \end{gathered}$ | $\begin{gathered} 0.886 \\ (2.151) \end{gathered}$ | $\begin{gathered} 0.886 \\ (2.151) \end{gathered}$ |
| Dividend voting minus non-voting |  |  |  |  | $\begin{gathered} 0.031 \\ (0.070) \end{gathered}$ | $\begin{gathered} 0.031 \\ (0.070) \end{gathered}$ | $\begin{gathered} 0.031 \\ (0.070) \end{gathered}$ |
| Observations | 36030 | 35816 | 36,030 | 25836 | 25794 | 25794 | 25794 |
| R -squared | 0.034 | 0.034 | 0.158 | 0.142 | 0.142 | 0.142 | 0.142 |

Panel B. Controlling for Corporate Governance

|  | (1) | (2) | (3) | (4) | (5) | (6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bad News | $\begin{gathered} 0.029 * * * \\ (0.007) \end{gathered}$ | $\begin{aligned} & 0.019^{*} \\ & (0.009) \end{aligned}$ | $\begin{gathered} 0.028^{* * *} \\ (0.007) \end{gathered}$ | $\begin{gathered} 0.029 * * * \\ (0.007) \end{gathered}$ | $\begin{gathered} 0.028 * * * \\ (0.007) \end{gathered}$ | $\begin{gathered} 0.014^{* * *} \\ (0.004) \end{gathered}$ |
| Prob being <br> Acquired | $\begin{aligned} & -1.685 \\ & (2.228) \end{aligned}$ | $\begin{gathered} 1.600 \\ (2.279) \end{gathered}$ | $\begin{gathered} 0.649 \\ (2.175) \end{gathered}$ | $\begin{aligned} & -1.155 \\ & (2.357) \end{aligned}$ | $\begin{gathered} 2.744 \\ (1.914) \end{gathered}$ |  |
| Liquidity voting minus liquidity non-voting | $\begin{gathered} -14.722^{* * *} \\ (1.668) \end{gathered}$ | $\begin{gathered} -14.674 * * * \\ (2.084) \end{gathered}$ | $\begin{gathered} -15.043^{* * *} \\ (1.692) \end{gathered}$ | $\begin{gathered} -14.921^{* * *} \\ (1.681) \end{gathered}$ | $\begin{gathered} -12.459 * * * \\ (1.506) \end{gathered}$ |  |
| Dividend voting minus dividend non-voting | $\begin{gathered} 0.022 \\ (0.065) \end{gathered}$ | $\begin{gathered} 0.729 \\ (0.508) \end{gathered}$ | $\begin{gathered} 0.030 \\ (0.065) \end{gathered}$ | $\begin{gathered} 0.025 \\ (0.067) \end{gathered}$ | $\begin{gathered} 0.082 \\ (0.085) \end{gathered}$ |  |
| Family | $\begin{gathered} -0.369^{* * *} \\ (0.130) \end{gathered}$ |  |  |  |  |  |
| Board Turnover |  | $\begin{gathered} 0.299 \\ (0.231) \end{gathered}$ |  |  |  |  |
| Cashratio |  |  | $\begin{aligned} & 0.960^{*} \\ & (0.568) \end{aligned}$ |  |  |  |
| Age |  |  |  | $\begin{gathered} 0.039 * * * \\ (0.014) \end{gathered}$ |  |  |
| Firm Mkt Value |  |  |  |  | $\begin{gathered} 0.289 * * * \\ (0.037) \end{gathered}$ |  |
| Firm Fixed Effects | No | No | No | No | No | Yes |
| Observations | 25794 | 11159 | 25794 | 25794 | 25794 | 36030 |
| R-squared | 0.160 | 0.148 | 0.146 | 0.151 | 0.232 | 0.756 |

## Table 4

## Share Characteristics and the Voting Premium

In columns 1 to 4 and column 7, the dependent variable is the voting premium of firm i during month t . In column 5 (6), the dependent variable is the price of the voting (nonvoting) shares of firm I during month $t$. All models include firm and year fixed effects and a constant, but coefficients are not reported. The voting premium is winsorized at the $1 \%$ level. Standard errors presented in parentheses are corrected for heteroskedasticity and clustered at the firm level. ${ }^{* * *}$, **, and * denote statistical significance at the 1,5 , and 10 percent, respectively.

|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Correcting for voting rights | Correcting for voting and cash flow rights | Subsamples |  | Stock prices |  | Voting premium |
|  | Full Sample | Full Sample | Ordinary Limited <br> and <br> Non - Voting <br> Shares | $\begin{aligned} & \hline \text { Preference } \\ & \text { Shares } \end{aligned}$ | Voting Shares | Non-Voting Shares | Ease of Arbitrage |
| Bad News | $\begin{gathered} 0.018^{* * *} \\ (0.005) \end{gathered}$ | $\begin{gathered} 0.013^{* *} \\ (0.006) \end{gathered}$ | $\begin{aligned} & 0.024^{*} \\ & (0.013) \end{aligned}$ | $\begin{aligned} & 0.013 * \\ & (0.007) \end{aligned}$ | $\begin{gathered} 0.001 \\ (0.003) \end{gathered}$ | $\begin{aligned} & -0.034^{*} \\ & (0.018) \end{aligned}$ | $\begin{aligned} & -0.098^{*} \\ & (0.054) \end{aligned}$ |
| Bad News*Difficult Arbitrage |  |  |  |  |  |  | $\begin{aligned} & 1.673^{* *} \\ & (0.724) \end{aligned}$ |
| Prob being acquired | $\begin{gathered} -9.847^{* * *} \\ (2.639) \end{gathered}$ | $\begin{gathered} -12.346^{* * *} \\ (3.795) \end{gathered}$ | $\begin{gathered} -10.499 * * \\ (3.924) \end{gathered}$ | $\begin{gathered} -12.237 * * * \\ (4.072) \end{gathered}$ |  |  | $\begin{gathered} 2.566 \\ (1.846) \end{gathered}$ |
| Liquidity voting minus non-voting | $\begin{gathered} -3.251^{* * *} \\ (0.638) \end{gathered}$ | $\begin{gathered} -3.529 * * * \\ (1.014) \end{gathered}$ | $\begin{gathered} -1.177^{*} \\ (0.587) \end{gathered}$ | $\begin{gathered} -3.658^{* * *} \\ (1.077) \end{gathered}$ |  |  | $\begin{gathered} -17.796^{* * *} \\ (1.458) \end{gathered}$ |
| Dividend voting vs. non-voting | $\begin{gathered} 0.064 \\ (0.070) \end{gathered}$ |  |  |  |  |  | $\begin{gathered} 0.002 \\ (0.061) \end{gathered}$ |
| Difficult Arbitrage |  |  |  |  |  |  | $\begin{gathered} -11.986 * * * \\ (1.106) \end{gathered}$ |
| Firm Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | No |
| Observations | 24521 | 23307 | 3019 | 22215 | 36,030 | 36,210 | 25,794 |
| R-squared | 0.132 | 0.067 | 0.083 | 0.077 | 0.074 | 0.003 | 0.215 |

## Table 5

## Ex Post Returns of Voting and Non-Voting Shares

In columns 1 to 10 the dependent variable is the difference in quarterly returns between the voting and the non-voting shares of firm $i$. In column 11 the dependent variable is the difference in biannual returns between the voting and the non-voting shares of the dual class firms in our sample. All models include year fixed effects and a constant, but coefficients are not reported. In model 11 we include calendar month fixed effects. The voting premium is winsorized at the $1 \%$ level. Standard errors presented in parentheses are corrected for heteroskedasticity and clustered at the firm level. ${ }^{* * *},{ }^{* *}$, and ${ }^{*}$ denote statistical significance at the 1,5 , and 10 percent, respectively.

|  | (1) | (2) | (3) | (4) | (5) | (6) Quarterly Re | (7) | (8) | (9) | (10) | (11) | (12) <br> Biannual <br> Returns |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bad News | $\begin{gathered} -0.015^{* * *} \\ (0.002) \end{gathered}$ |  | $\begin{gathered} -0.015^{* * *} \\ (0.002) \end{gathered}$ | $\begin{gathered} -0.015^{* * *} \\ (0.002) \end{gathered}$ |  | $\begin{gathered} -0.015^{* * *} \\ (0.002) \end{gathered}$ |  | $\begin{gathered} -0.015^{* * *} \\ (0.002) \end{gathered}$ |  | $\begin{gathered} -0.015^{* * *} \\ (0.002) \end{gathered}$ |  | $\begin{aligned} & -0.004 \\ & (0.002) \end{aligned}$ |
| Premium |  | $\begin{gathered} -0.009 * * * \\ (0.001) \end{gathered}$ | $\begin{gathered} -0.009^{* * *} \\ (0.001) \end{gathered}$ |  | $\begin{gathered} -0.009 * * * \\ (0.001) \end{gathered}$ |  | $\begin{gathered} -0.010^{* * *} \\ (0.001) \end{gathered}$ |  | $\begin{gathered} -0.009 * * * \\ (0.001) \end{gathered}$ |  | $\begin{gathered} -0.039 * * * \\ (0.003) \end{gathered}$ | $\begin{gathered} -0.018^{* * *} \\ (0.002) \end{gathered}$ |
| Good News |  |  |  |  |  |  |  |  |  | $\begin{aligned} & 0.007 * \\ & (0.004) \end{aligned}$ |  |  |
| Dividend voting vs dividend non-voting |  |  |  | $\begin{gathered} 0.004 \\ (0.006) \end{gathered}$ | $\begin{gathered} 0.004 \\ (0.007) \end{gathered}$ |  |  |  |  | $\begin{gathered} 0.005 \\ (0.007) \end{gathered}$ |  | $\begin{gathered} 0.009 \\ (0.015) \end{gathered}$ |
| Firm acquired following 6 months |  |  |  |  |  | $\begin{gathered} 0.020^{* * *} \\ (0.005) \end{gathered}$ | $\begin{gathered} 0.022 * * * \\ (0.006) \end{gathered}$ |  |  | $\begin{gathered} 0.020 * * * \\ (0.005) \end{gathered}$ |  | $\begin{gathered} 0.051 * * * \\ (0.012) \end{gathered}$ |
| Unification |  |  |  |  |  |  |  | 0.027*** | 0.037*** | 0.029*** |  | 0.022** |
| Following 6 months |  |  |  |  |  |  |  | (0.004) | (0.005) | (0.005) |  | (0.010) |
| Firm Fixed Effects | No | No | No | No | No | No | No | No | No | No | Yes | No |
| Month Fixed Effects | No | No | No | No | No | No | No | No | No | No | Yes | No |
| Year Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Observations | 34443 | 34443 | 34443 | 34377 | 34377 | 34443 | 34443 | 34443 | 34443 | 34377 | 34443 | 33459 |
| R -squared | 0.049 | 0.054 | 0.055 | 0.049 | 0.055 | 0.050 | 0.055 | 0.049 | 0.054 | 0.050 | 0.179 | 0.114 |

## Table 6

The dependent variable is indicated in each column. In columns 2 to 4 of Panel A and in Panel B, all variables are defined in deviation from the average of the year. Parameter estimates are obtained by instrumental variables. The first stage equation for the variable Oneshare is reported in column 1. In column 3 of Panel B, we also instrument Past yearly stock returns $\times$ oneshare using a first stage in which all variables in column 1 are multiplied by Past yearly stock returns. Standard errors presented in parentheses are corrected for heteroskedasticity and clustered at the firm level. ${ }^{* * *}$, **, and * denote statistical significance at the 1,5 , and 10 percent, respectively.
Panel A. Operating Performance

|  | $(1)$ <br> Oneshare | $(2)$ <br> ROE | $(3)$ <br> ROA | $(4)$ <br> Investment |
| :--- | :---: | :---: | :---: | :---: |
| VARIABLES |  |  |  |  |
| Oneshare |  | 0.110 | 0.065 | 0.016 |
|  | $0.017^{* *}$ | $(0.087)$ | $(0.041)$ | $(0.077)$ |
| Lag yearly bad news | $(0.007)$ |  |  |  |
| Lag yearly good news | $-0.023^{* *}$ |  |  |  |
|  | $(0.009)$ |  |  |  |
| Lag yearly number of acquisitions | $0.073^{* * *}$ |  |  |  |
|  | $(0.015)$ |  |  |  |
| Age | $0.021^{* *}$ | $-0.038^{* * *}$ | $-0.018^{* * *}$ | $-0.026^{* * *}$ |
|  | $(0.010)$ | $(0.007)$ | $(0.004)$ | $(0.008)$ |
| Lag Size | $-0.040^{* * *}$ | $0.016^{* * *}$ | $0.006^{* * *}$ | $0.017^{* * *}$ |
|  | $(0.003)$ | $(0.005)$ | $(0.002)$ | $(0.004)$ |
| Family | $-0.042^{* * *}$ | -0.011 | -0.005 | -0.006 |
|  | $(0.011)$ | $(0.009)$ | $(0.006)$ | $(0.007)$ |
| Observations |  |  |  |  |

Panel B. Corporate Governance

| VARIABLES | (1) | (2) | (3) | (4) | (5) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Chairman's Pay | Highest Pay | Board Turnover | CEO <br> Turnover | Leverage |
| Oneshare | -1,006.990 | -1,579.182 | -0.469* | -0.579 | -0.784* |
|  | $(1,547.862)$ | (1,742.130) | (0.261) | (0.935) | (0.427) |
| Past yearly stock returns $\times$ oneshare |  |  | -2.228 | -2.167 |  |
|  |  |  | (1.869) | (5.041) |  |
| Past yearly stock returns |  |  | -0.066 | 0.198 |  |
|  |  |  | (0.214) | (0.608) |  |
| Age | -133.693 | $-108.197$ | $0.037^{*}$ | -0.062 | -0.066 |
|  | (111.565) | (151.500) | (0.020) | (0.049) | (0.059) |
| Lag size | 285.146*** | 319.203*** | -0.010 | 0.030 | 0.080*** |
|  | (103.209) | (110.184) | (0.014) | (0.044) | (0.028) |
| Family | 151.401 | -41.768 | -0.044* | -0.013 | -0.053 |
|  | (128.551) | (141.228) | (0.026) | (0.049) | (0.071) |
| Lag ROA |  |  |  |  | $\begin{gathered} -2.106^{* * *} \\ (0.428) \end{gathered}$ |
| Observations | 5492 | 5492 | 2012 | 1292 | 5438 |

## Table 7

## Corporate Policies and the Voting Premium

The dependent variable is indicated in each column. Parameter estimates are obtained by ordinary least squares. The voting premium is winsorized at the $1 \%$ level. Standard errors presented in parentheses are corrected for heteroskedasticity and clustered at the firm level. ${ }^{* * *}$, ${ }^{* *}$, and ${ }^{*}$ denote statistical significance at the 1,5 , and 10 percent, respectively.

|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VARIABLES | ROE | ROA | Investment | Chairman's pay | Highest Pay | BoardTurnover | CEO turnover | Leverage |
| Premium | $\begin{gathered} 0.006 * * \\ (0.003) \end{gathered}$ | $\begin{gathered} 0.006 * * * \\ (0.002) \end{gathered}$ | $\begin{gathered} -0.000 \\ (0.002) \end{gathered}$ | $\begin{gathered} 47.773 \\ (79.004) \end{gathered}$ | $\begin{aligned} & 111.386 \\ & (77.824) \end{aligned}$ | $\begin{aligned} & -0.003 \\ & (0.004) \end{aligned}$ | $\begin{gathered} 0.005 \\ (0.019) \end{gathered}$ | $\begin{gathered} -0.040 \\ (0.025) \end{gathered}$ |
| Past yearly stock returns $\times$ oneshare |  |  |  |  |  | $\begin{gathered} 0.123 \\ (0.156) \end{gathered}$ | $\begin{gathered} 0.020 \\ (0.540) \end{gathered}$ |  |
| Past yearly stock returns |  |  |  |  |  | $\begin{gathered} -0.029 \\ (0.236) \end{gathered}$ | $\begin{gathered} 0.588 \\ (0.720) \end{gathered}$ |  |
| Age | $\begin{gathered} -0.021^{* *} \\ (0.010) \end{gathered}$ | $\begin{gathered} -0.007 \\ (0.006) \end{gathered}$ | $\begin{gathered} -0.014 \\ (0.011) \end{gathered}$ | $\begin{aligned} & -145.258 \\ & (302.241) \end{aligned}$ | $\begin{gathered} -97.076 \\ (346.154) \end{gathered}$ | $\begin{aligned} & 0.031^{* *} \\ & (0.012) \end{aligned}$ | $\begin{aligned} & -0.065 \\ & (0.042) \end{aligned}$ | $\begin{gathered} 0.010 \\ (0.060) \end{gathered}$ |
| Lag size | $\begin{gathered} 0.012^{* * *} \\ (0.003) \end{gathered}$ | $\begin{gathered} 0.002 \\ (0.002) \end{gathered}$ | $\begin{gathered} 0.013^{* * *} \\ (0.002) \end{gathered}$ | $\begin{gathered} 380.317 * * * \\ (61.332) \end{gathered}$ | $\begin{gathered} 425.132 * * * \\ (54.262) \end{gathered}$ | $\begin{gathered} 0.012 * * * \\ (0.003) \end{gathered}$ | $\begin{gathered} 0.058^{* * *} \\ (0.013) \end{gathered}$ | $\begin{gathered} 0.125^{* * *} \\ (0.023) \end{gathered}$ |
| Family | $\begin{gathered} -0.025^{* * *} \\ (0.009) \end{gathered}$ | $\begin{gathered} -0.015^{* *} \\ (0.006) \end{gathered}$ | $\begin{gathered} -0.013^{* *} \\ (0.005) \end{gathered}$ | $\begin{gathered} 192.355 \\ (133.562) \end{gathered}$ | $\begin{gathered} -11.954 \\ (128.602) \end{gathered}$ | $\begin{gathered} -0.016 \\ (0.011) \end{gathered}$ | $\begin{gathered} 0.017 \\ (0.035) \end{gathered}$ | $\begin{gathered} -0.004 \\ (0.061) \end{gathered}$ |
| Observations | 3411 | 3411 | 3411 | 3411 | 3411 | 1437 | 904 | 3411 |
| R-squared | 0.138 | 0.140 | 0.060 | 0.542 | 0.662 | 0.085 | 0.095 | 0.197 |

Figure 1
The Evolution of the Voting Premium
This table describes the evolution of the voting premium for the first (p25), second (p50), and third (p75) quartile of firms.


Figure 2
The Voting Premium and the Number of Acquisitions
This table describes the yearly number of acquisitions and the voting premium for the median firm in the sample.


Figure 3
The Voting Premium and the Debate on Dual Class Shares
This table describes the voting premium and the number of news on dual class shares during the year.



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[^1]:    ${ }^{1}$ Since in our sample most of shares with limited voting rights have no voting rights at all, for brevity, we refer to all shares with limited voting rights as non-voting shares.

[^2]:    ${ }^{2}$ For instance, Gompers, Ishii and Metrick (2010) find evidence that firms' valuations decrease in the insiders' control rights. However, Smart, Thirumalaib, Zutter (2008) show that the operating performance of dual class firms is similar to that of single-class firms. In all these studies, it is hard to establish causality because firms decide optimally whether to use and maintain a dual class share structure.

[^3]:    ${ }^{3}$ In this table, we complement our dataset with earlier data from Braggion and Ongena (2012), which are available only for selected years.

[^4]:    ${ }^{4}$ The debate that emerged in the UK did not have a correspondent in the US. By 1900, in most of the US states the default voting rule for ordinary shares without preferential treatment was one share one vote. This trend culminated in 1926 with the New York Stock Exchange disposing that, from then on, it would have allowed only trading of securities issued by companies whose ordinary shares complied with the one-share-one-vote principle. Until 1985, when the ban was eliminated, only limited voting shares with preferential dividend (preference shares) were allowed for trade in the New York Stock Exchange.

[^5]:    ${ }^{5}$ We do not attempt to classify the extent to which news are positive or negative by counting the number of positive and negative words. This approach biases our estimates against finding any effect of the news.

[^6]:    ${ }^{6}$ In all tests, we cluster errors at the firm level. Results would be invariant if we also clustered across time.

[^7]:    ${ }^{7}$ The small-minus-big portfolio is constructed by classifying firms with market value above the median of the firms in the London Share Price database as "big", and firms below the median as "small". Similarly, the low-minus-high portfolio is constructed by classifying firms with market to book ratio above the $70^{\text {th }}$ percentile of the firms in the London Share Price database as "high" and firms with market to book below the $30^{\text {th }}$ percentile as "low". Portfolios are rebalanced at the beginning of each year.

[^8]:    ${ }^{8}$ In unreported specifications, we also show that all estimates are invariant if we exclude any firm that unifies in the following 6 months.

[^9]:    ${ }^{9}$ While we present ordinary least square estimates, the results are similar if we use the same instrumentation strategy as in Table 6.

