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ABSTRACT

Public Debate and Stock Prices: Evidence from the Voting Premium*

An intense debate on the use of limited-voting shares developed in the UK during the 1950s. Using a unique hand-collected dataset, we show that negative news coverage of limited-voting shares is associated with an increase in the relative price of voting and limited-voting shares (the voting premium), even if no new material information has been revealed. The effects are stronger for firms that are difficult to arbitrage. Furthermore, a higher voting premium and negative news for dual class firms are followed by lower returns for voting shares than for limited-voting shares suggesting a reversion to fundamentals. Taken together, our results indicate that during this period investors' views may have limited firms' ability to use limited-voting shares and have broader implications on the effects of investors' views for stock prices and corporate governance.

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1. Introduction

Public opinion and media coverage are associated with how investors view disparate subjects and circumstances, including political candidates, financial assets, or corporate governance. Changes in public opinion may reflect fundamental information, but also the fact that market participants change the way in which they view a particular subject, independently from any changes in fundamental information. Influential theories in behavioral economics demonstrate that the way in which individuals think of a subject vastly depends on the categories they use (Barberis and Shleifer, 2003; Mullainathan, Schwartzstein, and Shleifer, 2008; Gennaioli and Shleifer, 2010). Existing studies provide experimental evidence that these theories can explain individual decision-making, but empirical evidence on the effects of these mechanisms on aggregate market outcomes is still scarce.[1]

This paper represents a first attempt to show that how individuals view a financial security affects its price in a way that is plausibly unrelated to changes in fundamentals. The opportunity is offered by an intense debate about the use of limited-voting shares, which starting from the mid-fifties developed over 15 years in the UK. The setting provided by non-voting shares in the UK of the mid-fifties is ideal for our purposes not only because the debate entails securities of the same firm, which facilitates price comparison, but also because the topic of non-voting shares is not as heatedly debated in the media nowadays.[2]

We explore how the tone of the debate is associated to the relative price of voting and limited-voting shares (henceforth, the voting premium) for the same firm. Arguably, the public debate, as captured by the tone of media coverage, both affects and reflects the categories market participants use to evaluate the securities that are

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[1] A notable exception is Barberis, Shleifer and Wurgler (2005), who show that stocks that can be classified as belonging to the same category exhibit larger comovements.
[2] We describe the institutional setting in detail in Section 2.

object of the debate and our analysis can shed light on whether these categories have an impact on aggregate market prices.

We show that the voting premium moves synchronously across firms and exhibits large increases and reversals between 1955 and 1970 in a way that cannot be explained by changes in firms' characteristics. The synchronous changes in the voting premium appear to be related to the tone of the debate on the use of limited-voting shares. In particular, negative news coverage increases the voting premium even if it does not reveal any new material information. The results are robust to controlling for measures of fundamentals, such as the total number of takeovers announced in a month or whether a firm was a takeover target. One possibility is that news against dual class shares proxy for negative information, not captured by our controls, about the future cash flows accruing to shareholders with limited voting rights. An alternative explanation is that the news are related to investors' views on limited-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, we show that the effects are stronger for firms with illiquid and high volatility stocks, which are more difficult to arbitrage, indicating that the effect of negative news coverage is unlikely to depend on expected differences in cash flows. Second, we show that the increases in the voting premium are driven exclusively by a decrease in the price of limited-voting shares. Any unexpected increase in the benefits accruing to voting shareholders (or a transfer from limited-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 limited-voting shares leading to lower prices for these stocks and a higher voting premium.

Third, the tone of the debate has a similar effect on limited-voting ordinary shares and preference shares. However, the latter having right to a preferential dividend were widely accepted in the financial community. Any proposals of enfranchising limited voting shareholders only entailed ordinary shares. The fact that limited-voting ordinary shares and preference shares are similarly affected by the debate is thus consistent with behavioral theories assuming that categories and associational thinking are important.

Last but not least, we explore whether the differences in the prices of voting and limited-voting shares are justified by ex post returns. If news coverage reveals information about the future cash flows of limited-voting shares, we expect that the prices of voting and limited-voting shares will reflect future returns and, in particular, that voting and limited-voting shares will offer on average equal returns. If news coverage instead reflects investors' views unrelated to fundamental information, we should expect that the price difference between voting and limited-voting stocks will not be justified by ex post returns. In other words, the voting premium should be systematically reversed, especially after periods of negative news coverage of limited-voting shares.

We find that negative news coverage of limited-voting shares increases the voting premium, but it is systematically associated to lower returns for voting shares relative to limited-voting shares over the next quarter (six months). Furthermore, a higher voting premium is related to *lower* returns for voting shares than for limited-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 limited-voting shareholders. This interpretation 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 negative news coverage of limited-voting shares is associated to periods in which investors categorize these securities as inferior claims and have unwarranted pessimistic expectations on their future payoffs. Our findings provide evidence that investors' views matter for stock prices. We also provide some evidence that the increase in the voting premium resulting from negative media coverage may have led companies to reduce the use of limited-voting shares.

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 firm characteristics not necessarily related to returns—such as growth prospects, their familiarity with the nature of the business, and the firm's name (Falkenstein, 1996; Grinblatt and Keloharju, 2001; Huberman, 2001; Cooper, Dimitrov and Rau, 2001). Our findings are also consistent with Hong and Kacperczyk (2009) who show that investors' preferences against 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). Furthermore, the use of the tone of media coverage allows us to proxy for the categories and scenarios that come to an investor's mind when she evaluates a security, indicating for the first time a

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mechanism for why investors appear to take into account stock characteristics other than risk and returns.

Others have shown that media coverage affects aggregate stock returns (Shiller, 2000; Huberman and Regev, 2001; Tetlock, 2007; Engelberg and Parsons, 2011; Garcia, 2013) as well as corporate governance (Dyck, Volchkova, and Zingales, 2008; Kuhnen and Niessen, 2012). We show that public opinion may be associated to investor views against certain forms of financing (such as limited-voting shares) and that this may affect stocks prices as well as firms' ability to use these forms of financing. It is not our objective, however, to identify the causal effect of media coverage on the relative prices of voting and limited-voting shares, but rather to show that public opinion –which is both reflected and shaped by the news—may affect investor demand and the relative price of securities.

Our paper is also 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 takeover or a proxy context (Zingales, 1994 and 1995; Nenova, 2003; Hauser and Lauterbach, 2004; Kalay, Karakas and Pant, 2012). Using a longer time-series, we show that public debate and investor views also contribute to explain the voting premium.[3]

The remainder of this paper is organized as follows. Section 2 describes the institutional background. Section 3 describes 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.

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[3] 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.

2. Institutional Background

2.1 The Stock Market in the UK

The stock market played an important role in the funding of UK companies since the 19th century. The 1948 Company Act had introduced disclosure rules for prospectuses and specific penalties for non-disclosure (Cheffins, 2008, pp. 356-360). It also allowed for proxy voting and made provisions for shareholders holding 10% of the votes to force an extraordinary meeting of shareholders.

By 1955, 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 the proportion of shares held by the top 3 shareholders was only 33.83% in 1950. Other studies provide similar evidence. In the sample of Braggion and Moore (2011), the average holdings of the Top 3 shareholders between 1895 and 1905 were 24%. Moreover, the average holdings of companies' directors were 8.1% already in 1911 (Hannah and Foreman-Peck, 2011).

Families owned only minority stakes, but in some instances 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 limited-voting shares and preference shares. The latter gave (limited-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.[4] 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

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

ensured that there was sufficient liquidity, but made difficult the formation of controlling blocks (Hannah 2007). To reduce the dilution of control, firms started to issue limited-voting or preferences shares to the public (Cheffins, 2008, pp. 226-227).

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 most heated phase of the debate on the use of dual class shares. 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 the fifties, an active market for corporate takeovers had also emerged in the UK (Cheffins, 2008, pp. 307-308). 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 determine the increase in the voting premium. In what follows, we control for takeover activity and how this relates to the debate on limited-voting shares.

2.1 The debate on limited-voting shares

Up to the first half of the fifties, issues of limited-voting shares proceeded smoothly and did not raise any criticisms. The debate on dual class shares 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 should be explicitly designated as such (Times, February 1, 1956).[5] The announcement also

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[5] 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

mentioned that this was not a necessary condition for obtaining a listing and that shares with limited voting rights were not recommended to report any explicit wording.

The debate that ensued was probably ignited by the fact that during the same period, institutional investors were gaining increasing importance, even though retail investors were still prevalent (Cheffins, 2008, pp. 344-345). Institutional investors exhibit a preference for the standardization of contracts and against dual class shares, which has been noted also in studies using more recent data (Giannetti and Simonov, 2006; Li, Ortiz-Molina and Zhao, 2008; Leuz, Lins and Warnock, 2009; McCahery, Sautner and Starks, 2010). It is unclear whether institutional investors' preferences for one share one vote are driven by expected returns. Institutional investors' support for one-share-one-vote share structures may have derived also from the option of becoming active in shaping firm policies, but what is crucial here is whether investors' inability of taking an active role translated in weaker firm performance (a proposition that we test below and for which we find no evidence).

A characteristic of the debate is that hardly any new material information that may have affected expectations on the relative returns of voting and limited-voting shares was revealed. No corporate scandals or other major events occurred. Rather, opinions were often reiterated by institutional investors, which may both have affected and reflected how all market participants viewed limited-voting shares.

For instance, on February 26, 1956, the retiring president of the Chartered Institute of Secretaries held a speech on the dangers posed by limited-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*

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shares with preferential dividend (preference shares) were allowed for trade in the New York Stock Exchange.

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".

Over the next two years, almost every month, there were stories with 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 limited-voting shares.

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 limited-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 limited-voting shares are issued, especially in small family firms. Similar news follow. However, institutional investors still refuse to participate in the issuance of new shares involving restricted voting rights. An animated debate ensues with both the Institute of Directors and the London Stock Exchange. The former advocates in favor of dual class shares; the latter issues a pronouncement stating that it would be wrong to refuse the trading of limited-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 limited-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 limited-voting shareholders receive limited gains. Thus, in October 1964, we find a call for a new bill abolishing limited-voting shares and, in the following months, companies experience new problems in issuing limited-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 of the 1960s, but it tones down during the 1970s. After 1970, we find a very limited number of news concerning the desirability of limited-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. Classifying the Tone of the News

To capture investors' views of limited-voting shares, we quantify the tone of the news during a period of heated debate on 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 aggregate market returns, followed by a reversion to fundamentals. Our objective, however, is not establishing the causal impact of media coverage, but whether investors' views, which are both reflected and shaped by the public debate, affect asset prices.

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We start by searching the Times of London Digital Archive and the Financial Times Historical Archive for news regarding dual class shares using the words "non-voting shares", "voteless shares", "restricted voting rights", and "limited-voting rights" from 1955 to 1970. The terminology "dual class shares" was not used at that time and yields no results.

Our search yields 1266 news from the Financial Times and 610 news from the Times of London.[6] We adopt two alternative methodologies to quantify investor attitudes towards limited-voting shares. The first methodology, similar to the one followed, among others, by Tetlock (2007), relies on an automated program that counts the number of words expressing negativity or positivity. The procedure involved several steps. First, we transformed the scanned images reporting the news into text using the ABBYY software, the leading package in optical character recognition (OCR) processing.[7]

To quantify the tone of each article, we fed the text files into the Pennebaker et al. (2007) linguistic inquiry and word count (LIWC) software. The program automatically processes text files and analyzes their content based on an internal dictionary. We focused on the scores identifying the degree of positive and negative emotions in each article. The program's default dictionary contains a category consisting of 500 words to measure negative emotions and 405 words identifying positive emotions. However, the built-in dictionary may not well represent the degree of negativity and positivity in a finance context. For this reason, we also classify the

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[6] It should be noted that 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.

[7] Once the conversion was completed, we had to resolve two additional problems. First, many times the scanned images contained several articles, but only one (or few) of them displayed the desired keyword. In these cases, we manually extracted the relevant article(s). Second, while the quality of the transcription was generally good, the accuracy of OCR processing was low for some images. In these cases, we manually corrected the transcription errors.

tone of the news using the dictionary of Loughran and McDonald (2011), which was specifically built to capture negative and positive emotions in a finance context. Using the two alternative dictionaries yields similar results and, for brevity, we only present results using scores based on the built-in dictionary.

Our final index of negative (positive) news coverage are obtained by summing the negative (positive) scores attributed to the news published during a month. In this way, we not only capture the intensity of negative and positive emotions, but also the intensity of the debate.

The advantage of this methodology is that it quantifies the tone of the news in a non-arbitrary way. The main disadvantage is that different types of news are included in the factor quantifying the tone of news coverage. This may create noise (Boudoukh, Feldman, Kogan, and Richardson (2013)).

For this reason, we also use a second methodology, similar to the one followed by Bhattacharia, Galpin, Ray and Yu (2009). We read all news from the Times of London in chronological order and classify them according to their tone towards dual class shares. Out the original 610 news, a subset is related to specific companies and their handling of limited-voting shares: for instance, news about share unifications or problems regarding the issuance of limited-voting shares. To be conservative and concentrate only on news that are least likely to provide any fundamental information, unavailable to market participants, following Shiller (2000) and Tetlock (2007), we focus on a subset of news that 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. These news unequivocally reinstate known positions rather than new information.

We classify news reiterating known arguments against (in favor) of dual class shares as negative (positive) for limited-voting shares.[8] However, the debate appears to be heavily skewed towards negative news. Out of the 112 news, which we classify as expressing opinions, only 26 can be classified as positive. This 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.

Using either of the two indexes, we explore whether the tone of the news during a month affects the voting premium, measured using end of month prices, thus effectively using 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). The LSPD covers a representative sample of the companies listed on the

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[8] In the results we present using this alternative score, we do not attempt to classify the extent to which news are positive or negative by counting the number of positive and negative words. The approach we follow biases our estimates against finding any effect of the news. The main conclusions of the paper are invariant if we measure the tone of this subset of news using Pennebaker et al software, as we do for the first indicator.

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 for 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".

Slightly over 10% of the dual class firms in our sample issued limited-voting ordinary 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.

We then hand-collect prices and dividends of limited-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.[9] We collect data for both limited-voting ordinary shares and preference shares. We record dividends, par value of shares and bid and ask prices in the last trading day of the month. We compute the price of limited-voting shares as the average of the bid and ask prices at the end of the month (as we do for the price of voting shares).

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[9] This is the same source used by LSPD to compile the prices of voting shares.

Finally, we merge the information on share prices with the Cambridge/DTI Databank, which provides 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.

4.2 Stylized Facts

Following Zingales (1995) and Rydqvist (1996), we compute the voting premium as the price of a voting share issued by a firm minus the price of a limited-voting share issued by the same firm, divided by the price of the limited-voting 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 limited-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 large 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 takeovers may have increased the expected cash flows accruing to voting shareholders and driven the voting premium up for all firms. Figure 2 shows that the number of acquisitions concluded during a month and the voting premium of the median firm at the end of that month are indeed related. Similarly, Figure 3 shows that the voting premium is also positively 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 during a month. This empirical evidence indicates that exploring the role of the takeover market for the voting premium and the debate is important for our analysis.

5. Results

5.1. Determinants of Negative News coverage

We start by exploring how the tone of news coverage is related to market conditions, takeover activity, and the voting premium itself. We capture market conditions and, more in general, systematic risk factors using the market return and the Fama-French factor portfolios, small-minus-big and high-minus-low.[10] We further construct a factor capturing firms' acquisition activities as the number of acquired and delisted firms in the current and following three months.[11] Columns 1 and 2 of Table 3 show that none of these factors appear to be associated to negative news coverage of

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[10] Following Fama and French (1993), we construct the small-minus-big portfolio by classifying firms with market value above the median of the firms in the London Share Price database as "big", and firms with market value below the median as "small". Similarly, the low-minus-high portfolio is constructed by classifying firms with market to book ratio above the 70th percentile of the firms in the London Share Price database as "high" and firms with market to book below the 30th percentile as "low". Portfolios are rebalanced at the beginning of each year.

[11] Franks and Harris (1989) indicate that this was nearly the maximum amount of time lapsing between the announcement of an acquisition and its completion.

limited-voting shares. Also, negative news coverage of limited-voting shares does not simply reflects a high voting premium as a high voting premium for the median company is not necessarily followed by negative news coverage.

These results suggest that the debate on limited-voting shares was indeed ignited by the advent of institutional investors, which in occasion of their shareholder meetings or press interviews were reiterating their views on the subject, independently from market conditions or specific firm situations. The tone of the debate reveals how some investors were viewing limited-voting shares and may also have changed the views of other investors. It is thus interesting to ask how the tone of news coverage affected the relative price of these securities.

5. 2 Negative News Coverage and the Voting Premium

The rest of Table 3 relates the negative tone of the news covering limited-voting shares to the voting premium. Throughout the analysis, we control for differences in dividend and liquidity between voting and limited-voting shares (Bailey, 1988). While differences in liquidity are highly significant and indicate that the voting premium is smaller if voting shares are less liquid, it does not appear that differences in dividends affect the voting premium.

More importantly, negative coverage of limited-voting shares is associated with a higher end of month voting premium. The effect is not only statistically significant, but also large from an economic point of view. The estimates in column 3 of Table 3 imply that, a one-standard-deviation increase in the score capturing negative news coverage increases the voting premium by 9 percentage points, which is almost 20 percent of the average voting premium. Importantly, the effect is somewhat smaller,

but still highly statistically and economically significant in column 4 where we control for the lagged voting premium of the median company. [12]

The voting premium could be related to market conditions. This could be the case for instance if extraction of private benefits of control by insiders changed over the business cycles (Lemmon and Lins, 2003). This is not a big concern because our earlier analysis shows that negative news coverage is unrelated to market factors. Nevertheless, we include the market return and the Fama-French factor portfolios, small-minus-big and high-minus-low, as controls. In column 5, the market factors appear to be positively correlated with the voting premium suggesting that the price of voting shares is relatively higher during good times. Since limited-voting preference shares are often distributed dividends before voting shares, it is unsurprising that the returns for voting shareholders are higher when market conditions are stronger. Most importantly, negative news coverage continues to have a positive effect on the voting premium.

Results are equally unaffected if we control for the acquisition factor. As we would expect, months with high acquisition activity have higher voting premium (column 6). To further address concerns that the effect of negative news coverage may be related to the takeover market, we define a dummy variable that takes a value of 1 between the month of the announcement and the completion of the acquisition for any firm that becomes an acquisition target in our sample. We then explore whether the voting premium of target firms is more exposed to negative news coverage. As we would expect, in column 7, target firms have higher voting premium, but there is no evidence that their voting premium has a different exposure to negative news coverage.

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[12] In all tests, we cluster errors at the firm level. Results would be invariant if we also clustered at the time level.

In unreported tests, we estimate the probability of each firm being target of an acquisition. As is common in the literature (Dong, Hirshleifer, Richardson, and Teoh, 2006; Edmans, Goldstein and Jiang, 2012), we estimate the probability that a firm in a given year is target of a takeover as a function of firm size, measured by the logarithm of market capitalization, age, leverage, cash holdings, profitability, the market to book ratio, a dummy capturing whether the firm is a family firm, a dummy capturing whether the firm is a subsidiary, and industry fixed effects, using a probit model. We then use the predicted probability as a proxy for the probability that the firm is taken over. Our results are similar to the ones we report in column 7. Results are equally invariant if we exclude any firms that are target of a takeover, further confirming that the debate is unlikely to be related to the takeover market.

The value of a vote may increase not only when firms are subject to takeovers, but also before shareholder meetings. Since most of shareholder meetings occurred in May June and July, in column 8, we repeat our tests excluding the months of April, May, June and July. The effect is, if anything, stronger than the one reported in our baseline regressions, indicating that negative news coverage is unlikely to capture corporate events affecting the value of a vote.

Another possible concern is that voting and limited-voting shares have different exposures to liquidity risk and that aggregate liquidity is somewhat related to the debate on dual class shares. Not only we control for the differences in liquidity between voting and limited-voting shares throughout the analysis, but in column 8 we also test whether the impact of the news on the voting premium is larger for firms for which voting and limited-voting shares have a larger difference in liquidity suggesting a different exposure to liquidity risk. In column 9, the effect of negative news coverage on the voting premium does not appear to depend on the difference in

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liquidity, indicating that different exposure to liquidity risk of voting and limited-voting shares cannot explain our findings.

We also test whether there is an effect of stories justifying deviations from one-share-one-vote on the voting premium (column 10). We find that positive coverage of limited-voting shares also tends to increase the voting premium. While this is at first sight surprising, positive news coverage of dual class shares in our sample is more frequent when the debate is heated and there is more negative news coverage (the correlation between the scores of positive and negative emotions is 56% and statistically significant at the 1 percent level). Also previous literature shows that only negative word counts have predictive power for aggregate stock returns (Tetlock, 2007).

Table 4 presents a battery of robustness tests aiming to controls for difference in firm characteristics. Column 1 includes controls for firm age, market capitalization, leverage, and cash holdings. It is evident that the effect of negative news coverage on the voting premium remains unchanged, suggesting that changes in these firm characteristics and sample composition do not drive our results.

Column 2 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 still have been possible through the board of directors and in family firms. Family firms appear to have a lower voting premium, suggesting that control in these firms is indeed less contestable. The voting premium is also larger in years with higher board turnover, but the coefficient is not statistically significant. More

importantly, these controls do not affect the impact of negative news coverage on the voting premium.

Finally, in column 3, the coefficient of the negative coverage remains unaltered when we absorb time-invariant firm heterogeneity by including firm fixed effects. This result suggests that any firm attributes that are slow to change, such as ownership structure or corporate governance, are unlikely to explain our findings. It is consistent with the evidence that corporate ownership in this period was already highly dispersed and therefore unlikely to be related to the voting premium. The earlier evidence that a firm's age, which is known to be negatively related to ownership concentration, is not statistically significant also indicates that ownership concentration is unlikely to be important in our context.

We then 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 4 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 5, we also correct the voting premium for the few cases in which voting and limited-voting shares have different cash flow rights.[13] Estimates are once again unaffected.

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[13] To correct for differences in cash flow rights, following Zingales (1994), we use the following definition of the voting premium: $\frac{1}{(n_v - n_{nv})} \frac{(P_v - P_{nv})}{P_{nv}} - \frac{\varepsilon}{\rho P_{nv}}$, where P_v (P_{nv}) is the price of a voting (limited-voting) share, n_v (n_{nv}) is the number of votes of voting (limited-voting) shares, ε are the cash flow rights of limited-voting minus the cash-flow rights of voting shares, and ρ is the discount rate. We compute the discount rate as the average monthly return of all stocks listed in the London Stock Exchange between 1955 and 1970.

In columns 6 and 7, we distinguish between limited-voting ordinary shares and preference shares. As noted before, the latter give right to the payment of a preferential dividend. For this reason, it was considered natural that preference shares had limited-voting rights. As the quote reported in Subsection 2.2 also illustrates, preference shares were never object of the criticisms of institutional investors. Also, preference shares were never converted in ordinary shares and any discussion of regulation always entailed enfranchising only 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 are unlikely to drive our findings and suggests that market participants put in the same category both ordinary and preference shares with limited voting rights, as is consistent with the behavioral theories assuming that categories and associational thinking are important.

Our results so far indicate that the bad news score is not related to the Fama-French risk factors, differences in systematic liquidity risk, or merger waves. Also changes in firm characteristics that are known from previous literature to affect the voting premium leave unaffected the coefficient of our proxy for the tone of news coverage. However, negative news coverage includes disparate news some of which could be related to the revelation of fundamental information on the value of voting relative to limited-voting shares. For this reason, we repeat all of our test concentrating on a subset of news from the Times on London, which happens to restate only well known opinions on the desirability of dual class share structures. The correlation between the two proxies for negative news coverage is 23 percent. Thus, we can perform a truly independent test of our maintained hypothesis.

Columns 1 of Table 5 shows that in months with negative news coverage, the voting premium is indeed larger. The estimates in column 1 imply that in months with negative news coverage, the voting premium, which is about 7 percentage points for the median firm, increases by 2.4 percentage points, that is, by over 25 percent.

We further interact this proxy with firm characteristics because understanding which firms are more affected may give us further insights on the mechanisms leading to the association between negative news coverage and the voting premium. If negative news coverage leads the prices of voting and limited-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 limited-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 limited-voting shares. In column 3, we find that the effect of negative news coverage is driven by firms with more illiquid stocks. Similarly, in column 4 we find that the positive effect of negative news coverage on the voting premium is driven by stocks with highly volatile returns, which also involve higher risk of arbitrage. These findings support the notion that the changes in the voting premium following negative news coverage are unlikely to be related to fundamentals.

In columns 4 and 5, we provide evidence on the extent to which changes in the voting premium are driven by changes in the price of voting or limited-voting shares. We believe that this evidence is informative on the mechanism driving our main results on the voting premium, even though only suggestive, because the price of a share is expected to be affected by firm characteristics and exposure to market factors

to a much larger extent than the voting premium, in which heterogeneity is controlled for by taking the difference in the prices of different share classes of the same firm.

Any explanation of the voting premium based on fundamentals would imply an increase in the benefits accruing to voting shareholders (for instance, because of a control contest) or a transfer from limited-voting 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 limited-voting shares. If instead news matters because of investor views unrelated to fundamentals and a decrease in the demand for limited-voting shares, the price of the latter is expected to decrease. This is precisely what we find. During months with negative news coverage, the price of limited-voting shares is lower, but there is no statistically significant change in the price of voting shares.

5.3. The Relative Returns of Voting and Limited-voting Shares

In this subsection, we design a more direct test to explore whether news indeed capture investors' views or if instead they are related to some omitted factor rationally affecting the expectations on future cash flows. We conjecture that if news coverage leads to a correct pricing of voting relative to limited-voting shares, we should observe that the news are unrelated to the future relative returns of voting and limited-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 of the limited-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 limited-voting shares, it would appear that the news are related to too pessimistic expectations on the returns of limited-voting shares. In this case, the higher voting premium following negative news coverage of limited-voting shares would appear to be unjustified by ex post returns. It could thus be interpreted as capturing changes in investor views for share structures that deviate from the principle of one-share-one-vote.

The results in Table 6 strongly support the latter hypothesis. The estimates in column 1 indicate that months in which news have a more negative tone towards dual class firms predict lower returns over the next quarter for the voting shares of a firm relative to the limited-voting shares of the same firm. The results are similar for both proxies for negative news coverage. In column 1, a one-standard-deviation increase in the bad news score decreases the returns of voting shares relative to limited-voting shares by 5 percentage points, a large number considering that the median difference in returns over a quarter is zero. Similarly, in column 2, the difference in quarterly returns following months with negative news coverage is about 1.5 percentage points. This evidence suggests that market participants over-react to negative news coverage and that changes in the relative price of voting and limited-voting shares are then reversed.

In column 3, we include the voting premium together with the negative news score. We continue to find that months with negative news coverage are followed by quarters with lower returns for voting shares than for limited-voting shares. We also find that months with a higher voting premium are systematically followed by quarters with lower returns of voting shares relative to limited-voting shares. A one-

standard-deviation increase in the voting premium yields a differential of 2 percentage points between the returns of voting and limited-voting shares.

In the remaining specifications of Table 6, we control for possible determinants of the different returns of voting and limited-voting shares that could be correlated with the news coverage.[14] First, we control for the possibility that voting shares are more exposed to some systematic risk factors, related to negative news coverage. This is unlikely because voting and limited-voting shares are claims on the same firm cash flows and differential exposure may only arise from the fact that limited-voting shares are senior to voting shares in the payment of dividends. Nevertheless, when we control for the market return and the Fama-French factors, the coefficient of negative news coverage is unchanged (columns 4).

If takeovers, changes in dividend policies, or unifications of different share classes are related to negative news coverage in a way that is not completely anticipated by market participants, we could observe that limited-voting shares have higher returns after periods in which dual class shares receive negative news coverage and the voting premium is higher. This, however, would not be attributable to investor views, but rather to the fact that firms' reaction to negative news coverage and to a high voting premium is not fully anticipated. For this reason, we test whether the predictive power of negative news coverage is driven by expectations of takeovers, unifications, or changes in dividend policies.

In column 5 and 6, respectively, we include the acquisition factor and a dummy that is equal to one if the firm is being target of an acquisition. In months with many acquisitions, returns of voting shares are higher than the returns of limited voting shares. Similarly, voting shares of firms that are being acquired, experience higher

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[14] Importantly, in unreported estimates, we find that this effect is stronger for firms that are difficult to arbitrage.

returns. However, we continue to find that negative news coverage is associated with too pessimistic expectations on the returns of limited-voting shares. In unreported specifications, we also control for the probability that a firm is acquired. Our results are equally unaffected.

In column 7, 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 limited-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 year. Unifications of different share classes appear to be preceded by lower returns for limited-voting shares relative to voting shares, but our main result is unaffected.[15]

In column 8, our results are similarly unaffected if we control for the dividend differential of voting and limited-voting shares as well as for differences in liquidity. Finally, column 9 shows that our findings are independent of the particular time horizon we use to compute the relative returns of voting and limited-voting shares. Negative news coverage of dual class share structure is followed by lower returns for voting shares even 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

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[15] In unreported specifications, we also show that all estimates are invariant if we exclude any firm that unifies in the following year.

larger number of stories against limited-voting 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.[16] 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 may lead firms to unify their share classes. Similarly, positive news coverage may make firms more likely to maintain their dual class share structure. We use our proxies for positive and negative news coverage as instruments for whether a firm has dual class shares. We then explore to what extent the difference between a firm's performance (or corporate governance) and that of the average firm during that year depends on having dual class shares and a number of controls. Our instruments 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

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[16] Existing evidence on whether dual class shares have a negative causal impact on firm performance is inconclusive (Adams and Ferreira, 2008). 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.

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, board turnover 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 may be able to rely to a lower extent on debt. This evidence is consistent with prior research indicating that dual class shares have no negative impact on firm performance. (e.g., DeAngelo and DeAngelo, 1985; Adams and Ferreira, 2007)

Focusing on dual class firms, we also explore to what extent the premium is associated to performance and corporate governance.[17] 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 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, which developed in the UK during the fifties, affected the voting premium and that the changes in the voting premium were not justified by the ex post returns of different share classes.

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[17] While we present ordinary least square estimates, the results are similar if we use the same instrumentation strategy as in Table 6.

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 views play a role in explaining the voting premium and may have affected negatively firms' ability to use dual class shares. These findings provide a rationale for why an increasing number of firms choose to be private.

More in general, our results suggest that the views of market participants may affect asset prices even if they are not justified by fundamentals. In particular, public opinion may affect firm cost of capital, corporate governance, and corporate policies, even if current arrangements are not suboptimal.

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Table 1

This table presents the fraction of firms with one-share-one-vote share structure 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 for selected years.

Variable	Statistic	1896	1906	1916	1924	1938	1948	1958	1964	1968	1978	1986
One Share - One Vote (0/1)	Mean	0.55	0.58	0.56	0.56	0.48	0.46	0.41	0.41	0.45	0.52	0.58
	N	617	1667	1682	2024	2775	3128	3339	3065	2989	1757	2453

Table 2
Descriptive Statistics

Panel A. Monthly Variables

VARIABLES	Definition	Mean	Median	Sd. Dev.	N
Premium	Price of a voting share issued by a firm minus the price of the non-voting share issued by the same firm divided by the price of the non-voting share	0.489	0.0711	1.339	38710
Difference Returns	Difference in returns between voting and non-voting shares issued by the same firm in the following 3 months	-0.00619	0	0.379	37441
Bad News	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	0.130	0	0.336	38710
Good News	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	0.0502	0	0.218	38710
Bad News Score	The sum of the scores identifying the degree of negative emotions in each article on dual class shares published in a certain month	8.521	6.050	7.510	38710
Good News Score	The sum of the scores identifying the degree of positive emotions in each article on dual class shares published in a certain month	13.99	11.19	11.89	38710
Acquisition Target	A dummy variable that equals 1 between a firm's acquisition announcement and completion	0.00984	0	0.0987	38710
Liquidity Voting minus Limited-Voting	Difference between the bid-ask spread of voting and non-voting shares	-0.00147	-0.00627	0.0362	38710
Dividend Voting minus Limited -Voting	Difference of the annual dividend (expressed as a percentage of the par value of shares) between voting and non-voting shares	0.0511	0.0587	0.253	38630
Return Volatility	Sum of the standard deviation (computed over five years) of the returns of voting and non-voting shares	0.200	0.123	0.320	27443
Illiquid Stock	Sum of the bid-ask spread of voting and non-voting shares	0.0782	0.0644	0.0549	38710
Market Return	Value weighted average of returns of all shares in the London Share Price Database	0.00763	0.00730	0.0405	38496
Small-minus-Big	Difference between the average returns of firms with market capitalization above the median minus the average returns of firms with market capitalization below the median	0.00143	0.00115	0.0169	38496

VARIABLES	Definition	Mean	Median	Sd. Dev.	N
High-minus-Low	Difference between the average returns of firms with market to book ratio above the 70th percentile and average returns of firms with market to book ratio below the 30th percentile	-0.00432	-0.00312	0.0135	38496
Acquisition Factor	The number of acquired and delisted firms in the current and following three months.	17.51	16	8.574	38710

Panel B. Annual Variables

VARIABLES	Definition	Mean	Median	Sd. Dev.	N
ROE	Total Profits (var66 in the Cambridge DTI databank) divided by Total capital and reserves (var60 in the Cambridge DTI databank).	0.207	0.203	0.127	5438
ROA	Total Profits (var66 in the Cambridge DTI databank) divided by Book value of assets (var60+var61 in the Cambridge DTI databank)	0.133	0.131	0.0717	5438
Investment	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.	0.0799	0.0500	0.159	5438
Chairman's Pay	Chairman's annual salary	960.7	0	4400	5438
Highest Pay	Annual salary of the Highest Paid Director	1236	0	5157	5438
Board Turnover	The proportion of companies' directors that were replaced or dropped in the following two years	0.148	0.125	0.167	2031
CEO Turnover	A dummy variable that equals 1 if the CEO of the company is replaced in the following two years	0.329	0	0.470	1312
Leverage	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	0.490	0.215	0.769	5438
Mkt Value	The logarithm of the firm's market capitalization	8.3913	8.2940	1.3463	39240
Oneshare	A dummy variable that equals 1 if the firm's share structure complies to the one-share-one-vote principle and zero otherwise	0.159	0	0.366	5438
Yearly Bad News	The number of bad news covering dual-class shares in a certain year	1.966	1	2.244	5438
Yearly Good News	The number of good news covering dual-class shares in a certain year	1.059	0	2.088	5438
Yearly Bad News Score	The sum of the scores identifying the degree of negative emotions in each article on dual class shares published in a certain year	102.0	107.3	39.28	5438

VARIABLES	Definition	Mean	Median	Sd. Dev.	N
Yearly Good News Score	The sum of the scores identifying the degree of positive emotions in each article on dual class shares published in a certain year	165.9	146.5	72.47	5438
Age	Firm's age in a certain year; The definition is based on the firm's year of birth provided by the Cambridge DTI databank	11.23	11	4.954	5438
Size	Firm's book value of assets	26.48	5.326	106.1	5438
Family	A dummy variable that equals 1 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"	0.601	1	0.490	5438
Cash Holdings	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	0.0880	0.0556	0.0950	5438

Table 3
The Voting Premium and the News Coverage of Dual class Firms

In column 1 and 2, the dependent variable is the Bad News Score in month *t*. In columns 3 to 10, the dependent variable is the voting premium of firm *i* at the end of 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 are presented in parentheses and are corrected for heteroskedasticity and clustered at the firm level in columns 3 to 10. In column 8, we exclude observations for the months of April, May, June and July, because most shareholder meetings occur in May, June and July. ***, **, and * denote statistical significance at the 1, 5, and 10 percent, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Bad News Score					Premium				
								Excluding Shareholder Meeting Months		
Bad News Score			0.012***	0.006**	0.011***	0.007**	0.011***	0.020***	0.010***	0.007**
			(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.005)	(0.003)	(0.003)
Bad News Score × Acquisition Target							-0.088			
							(0.112)			
Bad News Score* Liquidity Voting minus Limited-Voting									-0.076	
									(0.592)	
Good News Score										0.005**
										(0.002)
Lagged Median Premium	0.948			0.834***						
	(1.118)			(0.078)						
Acquisition Factor		0.016				0.004***				
		(0.018)				(0.001)				
Market Return	1.260	0.358			1.027***					
	(2.210)	(1.654)			(0.157)					
Small-minus-Big	1.811	1.726			1.851***					
	(6.753)	(4.870)			(0.304)					
High-minus-Low	-2.590	-2.099			0.469***					
	(3.805)	(4.089)			(0.159)					
Acquisition Target							0.489*			
							(0.273)			
Liquidity Voting minus Limited-Voting			-12.158***	-12.163***	-11.811***	-11.754***	-11.748***	-12.297***	-11.609***	-11.760***
			(1.099)	(1.109)	(1.209)	(1.194)	(1.195)	(1.335)	(1.797)	(1.194)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Bad News Score					Premium				
								Excluding Shareholder Meeting Months		
Dividend Voting minus Limited-Voting			0.019	0.020	0.059	0.059	0.063	0.056	0.059	0.059
			(0.057)	(0.057)	(0.096)	(0.096)	(0.099)	(0.095)	(0.096)	(0.096)
Observations	190	191	45757	45199	38416	38630	38630	25628	38630	38630
R-squared	0.219	0.219	0.156	0.157	0.147	0.146	0.146	0.152	0.146	0.146

Table 4
Share Characteristics and the Voting Premium

In all columns except 4 and 5, the dependent variable is the voting premium of firm i at the end of month t. In column 4, we correct the voting premium for the difference in voting rights; in column 5, we correct the voting premium for the difference in voting rights and cash flow rights. In column 6, we use only the subsample of firms with limited-voting ordinary shares. In column 7, we use only the subsample of firms with preference shares. 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.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
						Subsamples	
				Correcting for Voting Rights	Correcting for Voting and Cash Flow Rights	Ordinary Limited and Limited-voting Shares	Preference Shares
Bad News Score	0.016***	0.009**	0.012***	0.012***	0.010***	0.008***	0.012***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)	(0.002)	(0.003)
Cash Holdings	0.655						
	(0.537)						
Mkt Value	0.277***						
	(0.036)						
Leverage	0.216						
	(0.400)						
Age	0.020						
	(0.013)						
Board Turnover		0.190					
		(0.188)					
Family		-0.367***					
		(0.117)					
Liquidity Voting minus Limited-Voting	-12.463***	-11.606***	-2.965***	-2.693***	-3.190***	-1.325**	-2.882***
	(1.470)	(1.249)	(0.392)	(0.418)	(0.669)	(0.642)	(0.413)
Dividend Voting minus Limited-Voting	0.060	0.081	0.110	0.124	0.559	-0.009	1.393***
	(0.071)	(0.100)	(0.103)	(0.115)	(0.342)	(0.018)	(0.292)

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)
						Subsamples	
				Correcting for Voting Rights	Correcting for Voting and Cash Flow Rights	Ordinary Limited and Limited-voting Shares	Preference Shares
Firm Fixed Effects	No	No	Yes	Yes	Yes		
Observations	27214	28731	38630	36635	34988	4981	33649
R-squared	0.241	0.163	0.107	0.102	0.062	0.119	0.129

Table 5
Mechanisms Driving the Effect of News Coverage

In columns 1 to 3, the dependent variable is the voting premium of firm *i* at the end of month *t*. In column 4 (5), the dependent variable is the price of the limited-voting (voting) shares of firm *i* at the end of 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.

	(1)	(2)	(3)	(4)	(5)
		Voting Premium		Price limited-voting shares	Price Voting Shares
Bad News	0.024***	-0.005	-0.035	-0.008***	0.002
	(0.006)	(0.016)	(0.036)	(0.001)	(0.003)
Bad News × Return Volatility		0.128*			
		(0.074)			
Bad News ×Illiquid Stock			1.190*		
			(0.721)		
Return Volatility		0.117			
		(0.115)			
Illiquid Stock			-5.497***		
			(1.318)		
Liquidity Voting minus Limited-Voting	-11.762***	-11.728***	-9.490***	0.076	-1.804***
	(1.195)	(1.437)	(1.284)	(0.160)	(0.281)
Dividends Voting minus Limited-Voting	0.059	0.086	0.029	-0.001	0.091
	(0.096)	(0.115)	(0.074)	(0.005)	(0.073)
Firm Fixed Effects	No	No	No	Yes	Yes
Observations	38630	27380	38630	38630	38630
R-squared	0.146	0.142	0.167	0.220	0.089

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Table 6
Ex Post Returns of Voting and Limited-voting Shares

In columns 1 to 8, the dependent variable is the difference in quarterly returns between the voting and the limited-voting shares of firm i (difference returns). In column 9, the dependent variable is the difference in biannual returns between the voting and the limited-voting shares of firm i. All models include year fixed effects and a constant, but coefficients are not reported. 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)	(9)
				Quarterly Returns					Biannual Returns
Bad News Score	-0.007***		-0.007***	-0.007***	-0.008***	-0.007***	-0.007***	-0.007***	-0.005***
	(0.001)		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Bad News		-0.015***							
		(0.002)							
Premium			-0.009***						
			(0.001)						
Market return				0.001					
				(0.046)					
Small-minus-Big				-0.204**					
				(0.092)					
High-minus-Low				-0.153***					
				(0.053)					
Acquisition Factor					0.001***				
					(0.000)				
Acquisition Target						0.206***			
						(0.020)			
Unification following year							0.029***		
							(0.004)		
Liquidity Voting minus Limited-Voting								0.204***	
								(0.060)	
Dividends Voting minus Limited-voting								0.004	
								(0.006)	

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				Quarterly Returns					Biannual Returns
Observations	36530	36530	36530	36317	36530	36530	36530	36464	35149
R-squared	0.047	0.047	0.052	0.048	0.049	0.062	0.047	0.050	0.098

Table 7

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 and 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∗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) Oneshare	(2) ROE	(3) ROA	(4) Investment
Oneshare		0.117	0.066	0.039
		(0.093)	(0.046)	(0.087)
Yearly Bad News Score	0.048**			
	(0.020)			
Yearly Good News Score	0.032*			
	(0.019)			
Yearly Bad News Dummy	-0.010			
	(0.011)			
Yearly Good News Dummy	-0.029**			
	(0.011)			
Age	0.035	-0.038***	-0.017***	-0.019**
	(0.026)	(0.008)	(0.005)	(0.009)
Lag Size	-0.042***	0.015***	0.005**	0.010**
	(0.011)	(0.005)	(0.002)	(0.004)
Family	-0.041	-0.012	-0.006	-0.008
	(0.030)	(0.009)	(0.006)	(0.007)
Observations	5438	5438	5438	5438
	0.061			

Panel B. Corporate Governance

	(1) Chairman's Pay	(2) Highest Pay	(3) Board Turnover	(4) CEO Turnover	(5) Leverage
Oneshare	-1,030.965	-2,000.478	-0.467**	-0.103	-0.912**
	(1,353.788)	(1,408.542)	(0.224)	(1.050)	(0.456)
Past Yearly Stock Returns X Oneshare			-2.383	-0.099	
			(1.919)	(4.729)	
Past Yearly Stock Returns			-0.061	0.421	
			(0.214)	(0.525)	
Age	-185.891	-125.480	0.043*	-0.091	-0.050
	(130.192)	(149.448)	(0.023)	(0.067)	(0.061)
Lag size	293.428***	305.107***	-0.012	0.054	0.065**
	(95.278)	(97.396)	(0.013)	(0.049)	(0.026)
Family	149.245	-60.158	-0.044*	0.009	-0.061
	(127.036)	(144.486)	(0.025)	(0.048)	(0.071)
Lag ROA					-2.037***
					(0.432)
Observations	5438	5438	2001	1281	5438

Table 8
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) ROE	(2) ROE	(3) Investment	(4) Chairman's Pay	(5) Highest Pay	(6) Board Turnover	(7) CEO Turnover	(8) Leverage
Premium	0.008***	0.007***	0.003	45.703	115.191	-0.003	0.004	-0.039
	(0.003)	(0.002)	(0.002)	(79.670)	(78.610)	(0.004)	(0.019)	(0.025)
Past Stock Returns* Oneshare						0.139	0.034	
						(0.158)	(0.540)	
Past Stock Returns						-0.026	0.683	
						(0.240)	(0.725)	
Age	-0.018*	-0.006	-0.010	-162.991	-106.577	0.031**	-0.069*	0.015
	(0.010)	(0.006)	(0.011)	(305.131)	(349.027)	(0.012)	(0.042)	(0.060)
Lag Size	0.010***	0.001	0.007***	384.930***	432.970***	0.011***	0.056***	0.117***
	(0.003)	(0.002)	(0.002)	(62.993)	(56.237)	(0.003)	(0.013)	(0.023)
Family	-0.019**	-0.010*	-0.011**	159.914	-31.317	-0.019*	0.009	-0.011
	(0.009)	(0.006)	(0.005)	(138.647)	(133.206)	(0.011)	(0.036)	(0.062)
Observations	3355	3355	3355	3355	3355	1409	893	3355
R-squared	0.141	0.149	0.049	0.538	0.660	0.083	0.092	0.189

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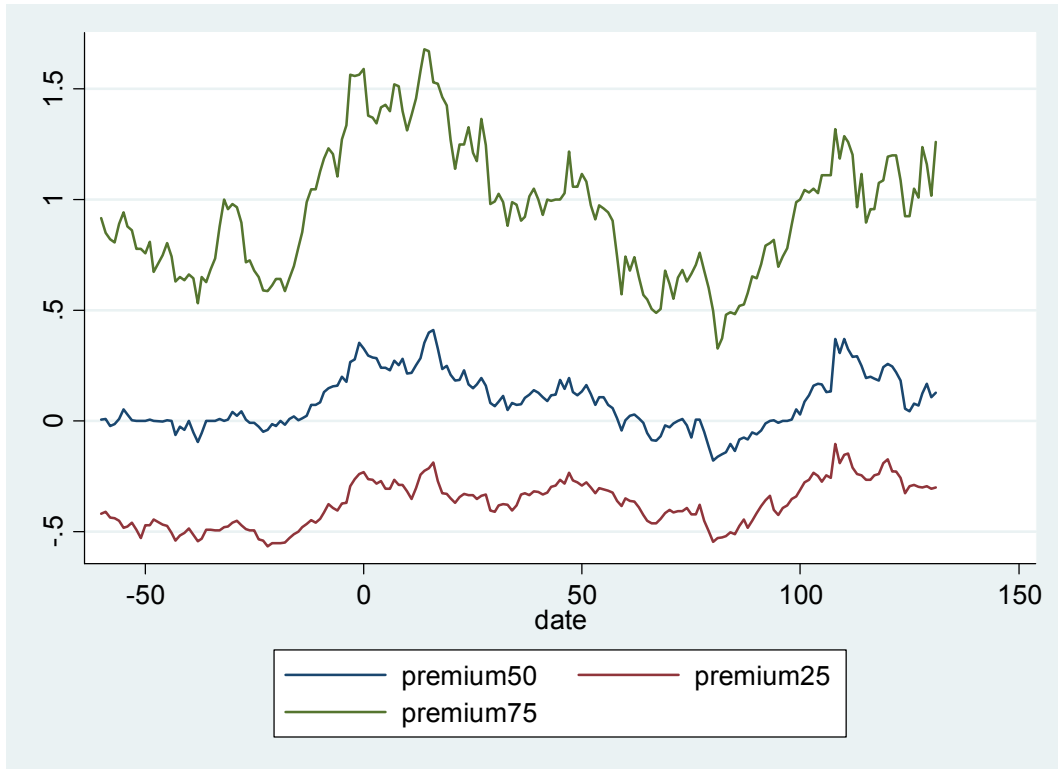

Figure 2
The Voting Premium and the Number of Acquisitions
This table describes the monthly number of acquisitions and the voting premium of the median firm at the end of the month.
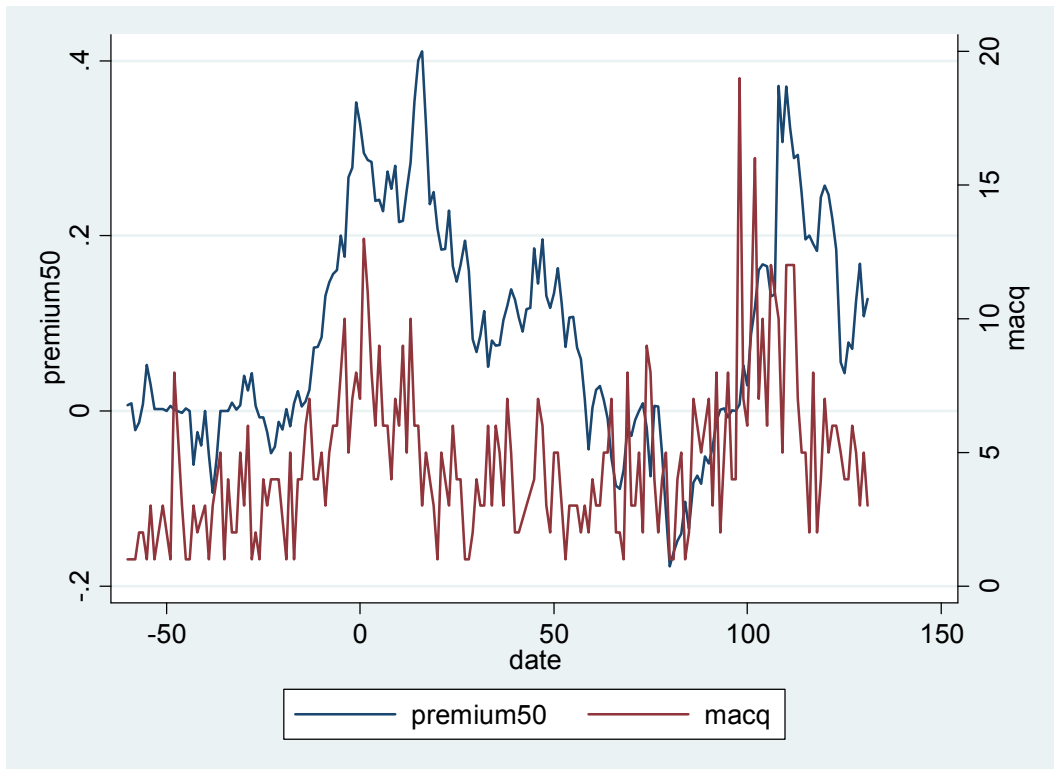
Figure 3
The Voting Premium and the Debate on Dual Class Shares

This table describes the voting premium and the number of news on dual class shares. The frequency is monthly.