OWNERSHIP TIES, CONFLICTS OF INTEREST
AND THE TONE OF NEWS

EMANUELE BAJO*
MARCO BIGELLI**
CARLO RAIMONDO***

Preliminary version

Abstract

In this paper we investigate the tone used by newspapers in reporting information on a company, which is in a conflict of interest regarding ownership ties with the publishing firm. We investigate this issue using Italy as empirical setting, a country characterized by a newspaper industry highly owned by nationally-dominant industrial groups. Based on a sample of about 123,000 articles we document that newspapers produce larger coverage and a significantly smaller number of negative and uncertain words for firms with a conflict of interest. We also document that the slant is increasing with the incentive to favorable distort news (magnitude of the ownership stake) and decreasing with the newspaper's reputation.

* University of Bologna, Department of Management, Via Capo di Lucca 34, 40126 Bologna, Italy. E-mail address: emanuele.bajo@unibo.it;

** *Corresponding Author*. University of Bologna, Department of Management, Via Capo di Lucca 34, 40126 Bologna, Italy. E-mail address: marco.bigelli@unibo.it;

*** University della Svizzera Italiana (Lugano), Institute of Argumentation, Linguistics and Semiotics, Via Giuseppe Buffi 13, 6900, Switzerland. E-mail Address: carlo.raimondo@usi.ch.

1. Introduction

It is undisputed that the media influence readers' perception and impact on the social, political and economic environment. For instance, the economic literature has shown how the media may influence election outcomes (Della Vigna and Kaplan, 2007) or how the relationship drives in the opposite direction, as the media shift their ideological exposure towards that expressed by the ruling party (Durante and Knight, 2012). The financial literature has documented similar and important effects on financial markets, such as the role of media on the market reaction to corporate announcements (Dyck and Zingales 2003, Tetlock, 2007) or to trading behaviors (Engelberg and Parsons, 2014, Fang et al., 2014), to cite some examples. Interestingly, these effects are not in place only when media report new and genuine information but they likewise occur when stale news are disclosed (Huberman and Regev (2001); Fang and Peress, 2009; Tetlock, 2011). Some studies have also shown that media deliberatively slant news in order to produce economic benefits to related parties. For instance, Reuter and Zitzewitz (2006) and Gurun and Butler (2012) show that past or current advertisers receive a different (and more favorable) treatment from newspapers from whom they have bought advertisement from.

Along this line, in this paper we argue that the media may treat firms that are connected with the newspaper or the publishing firms through direct or indirect ownership ties in a more favorable and condescending fashion. For example, on May 18th, 2010 the main Italian automotive manufacturer, Fiat, announced to the market a dramatic drop in the last month in the number of sales (-26.6%) and market share (9.9% to 7.6%). Due to this announcement, Fiat stock price fell by 3%. The same news is unequally reported by two of the main Italian newspapers: *La Repubblica* titles "Automotive, sales drop in Europe. Subsidies ended: in April –7%, Fiat -27%"; *La Stampa*, newspaper controlled by Fiat, reports "Fiat's sales exploit in UK and Spain, where the effect of subsidies is still significant", and then, in the subheading, "With no government subsidy the car market slows down in April by 6.9%, Germany the worst dragging along the Fiat Group".

We argue that the example just described cannot be considered an isolated incident and that newspapers commonly shape the reported news to make the information on related parties appear more positive (or less negative) than they actually are. This news slant is economically motivated: the increased visibility and/or laudatory

articles on connected firms may attract investors and customers' attention and result in higher stock market quotes or larger sales. We believe that this type of media slant may be the outcome of two distinct but, nonetheless, convergent processes: (a) the media owner may look for benevolent media treatment to create positive conditions for his connected firms; (b) journalists may try to attract the owner's sympathy in order to advance in their careers or may simply be too worried or awed to bring the owner's connected firms into disrepute. Although we are not able to disentangle these two rationales, we document that newspaper voluntary misrepresent information to investors, therefore representing a severe failure on the market for information and the opportunity for some form of regulation intervention.

Using the methodology developed by Loughran and McDonald (2011), we measure the *tones* of approximately 123,000 newspaper articles published by the top five Italian newspapers. We believe that Italy represents a unique empirical setting to test the conflict of interest within the newspapers industry as it is characterized by having the major newspapers controlled by industrial families or business groups. By looking at the ownership structure of the publishing firms of the top newspapers in the studied period (2007-2011), we identify a sample of 37 listed firms (13.1% of the number of Italian listed firms) with a conflict of interest due to a direct or indirect ownership-tie with the newspaper or the publishing firm. After controlling for year, firm, and newspaper-fixed-effects, we find that articles covering firms with a conflict of interest show a significantly lower propensity to use negative and legal tones when they report information on connected companies. Finally, firms with a conflict of interest are found to receive a significantly higher coverage by their connected newspaper than by the country's other top newspapers.

The remainder of the paper is organized as follows: Section 2 reviews previous studies, Section 3 illustrates data, methodology and research design, Section 4 presents descriptive statistics and the empirical analyses. Section 5 concludes.

2. Literature review

The relationship between media information production and corporate finance has gained a growing interest over the last decade. Several studies have documented that the way newspapers present the information produces important effects on financial markets. Among others, Dyck and Zingales (2003) investigate the role of media

disclosure on stock market reactions to earnings announcements. They document that price reactions are more pronounced when the press covers (and emphasizes) the announcements, and this effect is stronger for firms with greater information-asymmetry problems (i.e., smaller and with fewer analysts) and for more reputable newspapers. Later studies have added further evidence of an effect of the media on the financial markets: pessimism in the media propels downward stock price pressure followed by a reversion to fundamentals (Tetlock, 2007); local media coverage strongly predicts local trading (Engelberg and Parsons, 2014); the media reduce insiders' future trading profits by disseminating news on prior insider trades reported by regulatory releases (Dai et al, 2015); the media increase stock return momentum (Hillert, 2014) or influence both a fund's propensity to buy stocks on most covered firms (Fang et al., 2014) and mutual fund inflows (Solomon et al., 2014). One could argue that the association between media coverage and the impact on the financial market may suffer from an endogeneity problem, as it is difficult to accept that what is reported in newspapers is exogenous. Peress (2014) solves the problem of endogenous matching between reported news and stock market behavior by showing sizeable reductions in trading volume and intraday volatility in the days of national newspaper strikes.

Interestingly, stock markets react to news even if they do not supply genuine new information. For instance, Huberman and Regev (2001) show how a *New York Times* article on a potential breakthrough in cancer-curing drugs caused a sharp price increase in the related stock (from 12 to 85 dollars) although the substance of the story had already been reported in several other newspapers five months earlier. This phenomenon is not only limited to anecdotal evidence, as several other studies document that stock returns respond to stale news (Fang and Peress, 2009; Tetlock, 2011).

Some studies highlight two main channels through which the media impact on an individual's financial decisions and, in turn, on stock markets. Firstly, the media alleviate information frictions and asymmetry by disseminating information among market participants (Dai et al., 2015). Secondly, by selecting among the vast amount of information available a cognitively tractable sub-set of news, the media can enhance and tunnel investor attention toward the press-covered companies (Peng and Xiong, 2006).

Given their impact on financial dimensions, the media possess a material and critical corporate governance responsibility but also play a potentially harmful role in the case of misconduct. Past research has outlined both of these characterizations,

documenting how the media may act as *watchdogs* against corporate illicit or unethical behavior but may likewise slant information when there is a conflict of interest.

Among the former type of studies, Miller (2006) suggests the monitoring role of the press against accounting frauds, although it generally simply rebroadcasts information from other sources (analysts, auditors and lawsuits) and reports on corporate events with low identification and investigation costs. Dyck et al. (2008) find that the coverage by the Anglo-American press positively affects the probability that a corporate violation in Russia will be reversed. Joe et al. (2009) show how the media push companies to take corrective actions when board ineffectiveness is reported. Kuhnen and Niessen (2012) report evidence of firms reducing option grants following negative press coverage of CEO pay. Finally, Liu and McConnell (2013) show that the likelihood of abandoning value-reducing acquisitions is associated with the degree and the tone of media coverage of the proposed transaction.

Among the second set of studies, few papers have addressed the possibility of slanted information. Gurun and Butler (2012) document that local newspapers employ fewer negative words when they report information on local companies (as opposed to non-local firms), this effect being mainly driven by local firms' advertising expenditures. On the same line of research, Reuter and Zitzewitz (2006) find that personal finance publications bias their mutual fund recommendations by favoring past advertisers. Ahern and Sosyura (2014) show that after the beginning of a merger negotiation (but before the public announcement) bidders largely generate more news stories in order to favor a run-up in bidders' stock prices and to get a more favorable stock-exchange ratio, providing some grounds for the conjecture that firms seek to influence the timing and content of media coverage in order to manipulate their stock price. Della Vigna and Hermle (2014) analyze the effect of conflicts of interest generated by media ownership in the movie industry. They test whether there are differences in movie reviews by media outlets owned by News Corp. (*Wall Street Journal*) and Time Warner (*Time*). However, they document no bias in the reviews for 20th Century Fox movies in the newspapers owned by News Corp., nor for the reviews of Warner Bros. movies in the newspaper controlled by Time Warner. They conclude that these findings support the thesis that media reputation acts as a counterforce to the conflict of interest. Some papers have documented that government ownership of the media negatively affects the level of political and economic freedom (Dyck et al., 2008) or is associated with a higher level of bank corruption (Houston et al. 2011), but to the best of our knowledge, no investigation

has been made of the possibility of slanted information arising from conflict of interest due to ownership ties.

3.   Data and methodology

3.1 The empirical setting

The analysis is based on the top five Italian non-sport daily newspapers for circulation at the end of 2011 indexed on Factiva: *Il Corriere della Sera*, *La Repubblica*, *La Stampa*, *Il Giornale*, and *Il Resto del Carlino*.[1,2] Table 1 shows that the five media outlets combined cover 31.8% of the total number of daily newspapers sold in Italy. By analyzing the publishing firm's ownership structure and its ultimate controlling shareholder in the 2007-2011 period we identify 37 firms with a conflict of interest (as specified further below) due to a direct or indirect ownership relationship. We decided to limit the analysis to listed firms as a potential information slant could distort investor behavior and deserves some attention by regulators.[3]

For each firm in a conflict of interest we collect all the articles published in the sample period in the five newspapers and the following Factiva-subjects: Corporate/Industrial News; Economic News; Commodities/Financial Market News. A controlling set of newspaper articles is also created for firms not in a conflict of interest. The control sample consists of news on all the other Italian listed firms at the end of 2011 (about 260 firms). Our final sample is made up of 123,624 articles, of which 15,887 (12.85%) refer to 37 firms in a conflict of interest.

3.2 Firms in a conflict of interest of ownership ties

We define a firm having a conflict of interest if it satisfies one of the following ownership conditions: a) the firm is the publishing firm of the newspaper; b) the firm is the controlling shareholder or an intermediate controlling shareholder or the ultimate

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[1] Data about circulation comes from *Accertamento e Diffusione Stampa* (for Italian newspapers) and the *Audit Bureau of Circulation* (for US newspapers).

[2] Among the top five Italian newspapers, we exclude *Il Sole 24 Ore*, since it is owned by the association of Italian businesses (*Confindustria*), and *Il Messaggero*, as it is not covered by Factiva.

[3] For example, newspaper articles could be required to add a conflict-of-interest statement similar to that required for analysts' reports.

controlling shareholder of the publishing firm (moving upward in the pyramidal chain); c) the firm belongs to the control group of the ultimate controlling shareholder of the publishing firm; d) the firm is a blockholder of the publishing firm with a stake of five percent of total voting rights or greater;[4] d) the firm is a stakeholder of the publishing firm with a stake of at least two percent of the total voting rights and the stake belongs to a shareholders' agreement that is controlling the company.[5]

Control is defined when the largest shareholder holds at least 20% of voting rights, as in Faccio and Lang (2002) or whenever the control of the company is shared with other shareholders through a shareholder agreement.[6] Ownership data for listed publishing firms were collected from the Italian regulator's database, while ownership data for private firms (when in the pyramidal chains) were taken from Orbis.

2.3 Textual Analysis

Following the publishing in 2011 of the paper by Loughran and McDonald, textual analysis in the financial context deeply changed and has continued to improve (Dougal et al., 2012, Loughran and McDonald, 2013, Garcia, 2013). These papers, based on US newspaper articles, use the specific set of English word lists developed by Loughran and McDonald (2011). Unfortunately, a similar set of word lists has not yet been developed for the Italian language. For this reason, in order to measure the tones of the Italian newspaper articles, we extend the set of words listed in Loughran and McDonald (2011) to Italian. The translation process is based on the following rules: a) provide the best possible translation with respect to the financial and business industry usage of each single word; b) avoid translated Italian words with an ambiguous sense in the Italian language. Furthermore, we replicate the logic used in the Loughran-Mcdonald lists, providing a list of terms and not a list of lemmas. In order to obtain this property we expand the word lists to consider all the inflected forms using a linguistic tool called

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[4] If the 5% ownership level is exceeded in only one quarter, the average ownership level along the four quarters must exceed 4%.

[5] This situation refers to *Il Corriere della Sera*, the first Italian newspaper for circulation, controlled by a shareholders' agreement grouping modest but stable stakes over our study-period. The 2% level is the minimum level for mandatory disclosure to the Italian regulator.

[6] This is again the case of *Il Corriere della Sera*, which is controlled through a shareholders' agreement among several block-holders in the study-period. In 2011 the shareholders' agreement controlled 63.54% of the voting shares with single contributions from thirteen block-holders ranging from 1.045% to 13.699%.

Morph-It (Zanchetta, 2005), which maps all Italian terms and their inflections.[7] For positive and negative tones we also take into account possible negations of positive and negative words. Since a negated positive (or negative) word, like *not excellent*, has a different meaning to the original one (*excellent*), but it is difficult to properly understand the actual new meaning, we do not count the word occurrence as having either a positive or negative tone. The tone counts are then scaled on the total number of words in each text-article in order to obtain six tones representing the proportion of tonal words in the article. In this paper we compute six different tones: *Positive* (percentage of positive words, such as *accomplish*, *diligent*, or *profitable*), *Negative* (percentage of positive words, such as aberrant, bribe, or *illegal*), *Uncertainty* (percentage of uncertain words like *ambiguous*, *possible*, or *sometimes*).

3.4 Research Design

For each firm in a conflict of interest or in the control sample we look for related articles in the five selected newspapers in the sample period (2007-2011). We collapse the information at a newspaper-firm-year level. This means that all the articles reporting about a specific firm published in a given newspaper in a certain year are grouped and we compute metrics of coverage and sentiment across them.

We denote firms in a conflict of interest with a dummy variable equal to 1. Clearly, the tone and the coverage of a newspaper is driven not just by ownership links but by a multitude of factors such as, for example, advertising expenditure, firm size, industry and glamour. Furthermore, each newspaper may have a different propensity to be friendly or hostile to a specific corporation, due to previous business litigations, for example. In order to analyze how article tones are affected by the conflicts of interest arising from ownership-ties conditional to other possible firm-specific or newspaper-specific determinants, our models adopt both firm and newspaper fixed-effects. The wide dimension and variability in our data allow us to consider the part of the variance which is not determined by the single year-effect, firm-effect or newspaper-effect as explained

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[7] The different characteristics of the Italian language generate numbers of word lists, which are multiples of the English word lists by Loughran and McDonald (2011), due to more inflections (for example, male/female) and verb conjugations. The number of Italian (English) words for the various tones are therefore the following: 3,920 (354) for positive, 22,817 (2,329) for negative, 2,997 (297) for uncertain, 6,016 (886) for legal, 413 (26) for weak modal, and 201 (19) for strong modal.

by a dummy capturing the conflicts of interest for the ownership-tie between the firm and the newspaper, as in the following model:

$$T_{i,n,f,t} = \beta_0 + \beta_1\, n_i + \beta_2\, t_i + \beta_3\, f_i + \beta_4\, d_i + \varepsilon_i$$

Where $T_{i,n,f,t}$ is the *tone* of the i article published in the n newspaper, in the year t, about the firm f; β_1 is the effect of each single newspaper; β_2 is the effect of each single year; β_3 is the effect of each single firm; β_4 is the effect of the *firm-newspaper* relationship, i.e. it is measuring the effect of the firm being in a conflict of interest with the newspaper (dummy variable $d = 1$).

4.   Descriptive Statistics and Empirical Results

4.1. Ownership structure of the publishing firms and articles in a conflict of interest

In Table 1 we report some information on the ownership structure of the top five Italian newspapers under analysis together with the number of listed firms and articles in a conflict of interest. For each newspaper we indicate the name of the publishing firm at the end of our sample period (2011) together with the type of ownership structure. In our sample, only the major newspaper, *Il Corriere della Sera*, is controlled by a shareholder agreement, owning 63.54% of the voting shares and the newspaper's major shareholder (with 14.94% of the votes) is Mediobanca, a leader Italian investment bank. The other four most widely sold newspapers are ultimately controlled by a family firm. The number of firms defined as being in a conflict of interest with the publishing firm, and therefore with the newspaper, over the studied period is 37. Among these 37 firms, 21 relate to one single newspaper, i.e., *Il Corriere della Sera*, as it is controlled by a shareholder agreement whose composition has changed over time and involved 21 listed firms over the sample period. Noteworthy, the ownership structure of publishing firms shows little variation in term of major stakeholders. The yearly average number of shareholders in a conflict of interest (33.40) is similar to the overall number over the whole period (37), indicating that only a few controlling shareholders have changed over the 5-year period. This is particularly true for two newspapers (*La Repubblica* and *Il*

Giornale), where all the shareholders in a conflict of interest (5 and 3, respectively) remained the same for all five years of the study.

For each newspaper the table also reports the number of articles for the firms in a conflict of interest, the total number of articles and the percentage of those in a conflict of interest. Given the high number of connected firms for *Il Corriere della Sera*, the fraction of total articles in a conflict of interest coming from this newspaper is the highest and is equal to 36.15%, compared with an average fraction equal to 12.85% for the whole sample. It should be noted that the total number of articles in a conflict of interest related to *Il Corriere della Sera* accounts for more than half of all the Italian observations (8,723 versus 15,887). The total sample is made up of 123,396 total articles, of which 15,887 are related to firms in a conflict of interest (12.85% of the total).

Insert Table 1 about here

4.2. Tones of the articles

Table 1 reports descriptive statistics on article length and *tones*, i.e. the percentage of words belonging to the six sentiment word lists developed by Loughran and McDonald (2011): positive, negative, uncertain, legal, weak modal and strong modal.

The length of the articles is measured in terms of number of words. The average (median) article contains 340 (262) words and is larger in size when referred to firms in conflict of interests then the ones reporting on unrelated companies. The difference between these two sets of articles (55 words), which is strongly statistically significant, provides some ground to the hypothesis that newspapers allocate more space and report with greater attention information related to their connected companies.

The remaining statistics relate to the way newspapers report their articles. While the difference across the six tones is little informative (the percentages of the different tones range between 0.41% and 2.24%), as they depend on the number of words included in each tone list, contrasting the level of tones between firms in a conflict of interest and other firms produces interesting findings. Although all these differences are statistically significant, their magnitude largely differ across the tones. Specifically, while positive and uncertain tones show modest gaps, the articles in conflict are in average less negative (2.05% *vs.* 2.26%) than the counter-sample and show a fewer use of legal terms (1.11% *vs.* 1.27%). Both these findings support the idea put forward in this paper that

newspapers are more incline to shape their articles more favorably when they report information about companies they are connected to.

Panel B show the summary statistics for the coverage at the newspaper level, having as unit of analysis the newspaper-firm level. The last two row of the panel are reporting the same statistics limiting the analysis at the firms that own a relevant ownership share in at least one of the newspaper.

Panel C is reporting summery statistics for the ownership related variables, here reported at the article level. Looking at them we might observe how 13% (5%) of the articles are related to firm owning a relevant (controlling) share in the ownership of the newspaper that published the article itself.

Insert Table 2 about here

4.43. The conflict of interest and the tone of the articles

The tone of a piece of news can be influenced by many factors. First, periods of economic downturns are likely to decrease (increase) the use of positive (negative) words in the press simply because of the poorer firms' performance. Going up (down) the frequency of words such as losses (profits), achieved (abandoned), successful (failure), the newspaper negative (positive) tone increases (decreases) by construction. Similarly, during recessions the degree of litigation levels up and so the legal tones used by the media. Second, firm characteristics play a role in shaping the article tone. Certain industries (for example, high growth or glamour) may receive more enthusiastic treatment from the media and in turn exhibit more positive or less negative tones. Similarly, larger firms could more easily have some sort of connection to the publishing firm (outside of ownership relationship), such as past or current advertising expenditure, that might affect the way newspaper report the information. Third, each newspaper has its own editorial policy and audience that justifies a difference use of the language. The resulting effect is that each media outlet makes an unevenly use of positive, negative, uncertain or legal words.

Table 3 reports the results of tobit regressions where the article tones (*positive, negative, uncertain, legal, weak modal,* and *strong modal*) are regressed against a dummy variable equal to 1 when the article reports on a firm in a conflict of interest, along with newspaper, year and firm fixed-effects. While the fixed effects are meant to capture the

factors mentioned above, the dummy residually tests for our research hypothesis. The results indicate that articles in a conflict of interest are significantly less negative and litigious (legal) in their tone. Although the dummy is strongly significant in both of these two attributes, the economic effect in the negative tone is almost ten times as much as the one shown in the legal tone. In particular, articles in a conflict of interest display 0.28% fewer negative words than the control sample. This evidence confirms what already presented in the univariate analysis and shows the use of biased tones when journalists comment on a firm with an ownership tie to the newspaper.

Insert Table 3 about here

However, not all the newspaper may be subject to the same intensity of this conflict of interest. We argue that the propensity to favorably bias the information is the resulting trade-off between the economic benefit of distorting information in favor of connected firms *versus* the potential reputational damage. The former effect may be a function of several characteristics: the higher the ownership stake or the voting rights, the stronger the competitive environment in which the company operates, or simply the pressure exercised by the controlling shareholder over the newsroom, the more the information reported may be biased. On the other side, the newspaper's reputation can be a more valuable distinguished asset for some newspapers, which will therefore try to limit slanted information (Della Vigna and Hermle, 2014).

In the next two tables we aim at assessing the importance of these effects, first relating the article tone to the importance of the ownership tie and then to the specific contribution of each newspaper. Table 3 shows the relationship between the article tones and (a) the ownership stake of the company in conflict of interest or (b) a dummy variable that takes on the value of 1 when the company in conflict controls the newspaper (defined as an ownership stake greater than 20%).[8] Precisely, the first two models in Table 4 add to the baseline regression (Table 3) the ownership stake of the company in conflict. Clearly, if the company the newspaper article is referring to does not show any ownership tie with the publishing firm, the variable takes the value of zero. This clarification helps understanding that the *Ownership Share* is interpretable as an interaction variable between the *Conflict Dummy* and the ownership stake and

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[8] For sake of space from Table 4 onwards we only report the regressions on *Negative* and *Legal* tones as they have been shown as the most significant characterizations in the newspaper articles (Table 3).

therefore represents the marginal explanatory power of the ownership stake over what already captured by the dummy conflict. As for the negative tone, the effect of the ownership size is both highly statistically significant and economically important: one standard deviation increase in the stake of the company in conflict (19.35%) decreases the percentage of negative words by 0.62% relative to a cross-sample average of 2.24% (2.05% for the companies in a conflict of interest). Oppositely, we document no effect on the average level of legal words when we include the variable *Ownership Share*. The next two models in Table 4 use instead a different proxy for the economic incentive of newspapers to distort the reported information in favor of the related parties, that is when the company the article refers to controls (i.e., it has an ownership stake greater than 20%) the publishing firm (*Control Dummy*). Results are in line with previous models. While no interaction effect (with the dummy conflict) is detected for the legal tone, the *Control Dummy* is negatively associated with the percentage of negative words.

These results reinforce what shown earlier regarding the association between a more favorable article tone and an ownership tie to the newspaper and further support the hypothesis that the magnitude of the slant is correlated to the economic benefit in place that in turn depends on importance of the ownership tie.

Insert Table 4 about here

However, the economic incentive is only one side of the story. Earlier we have postulated the existence of a trade-off between the incentive and the reputational cost of slanting the pieces of news. If the former is somehow approximable with the size of the ownership, we also need to control for the latter. Plausibly, the reputational cost is not alike across different outlets since each newspaper possesses a diverse degree of reputational capital. Generally, more widespread and not politically exposed newspapers count on an audience that expects fair and neutral treatment of the information. If those newspapers deliberately and heavily swing towards specific economic or politic interests, their audience will likely switch to other more reliable sources of information. At the other end, the readers of newspapers with political allegiances usually expect (and, to a large extent, require) a different and partial way to report the piece of news. Similarly, the readers of tabloids are generally in search of more sensationalistic news and somehow appreciate a more exacerbated tone.

Accordingly, the reputational cost largely varies across newspapers. Specifically, we expect that the three largest and more reputable newspapers (*Corriere della Sera*, *La Repubblica* and *La Stampa*) will face a greater reputational risk than the other two outlets (*Il Giornale* and *Il Resto del Carlino*).

Insert Table 5 about here

In order to test if the magnitude of the conflict of interest varies across newspapers, we regress (Table 5) the article negative and legal tones on a newspaper-conflict dummy interaction variable, controlling for year and firm fixed-effects. We do not include the conflict dummy to avoid perfect multicollinearity. While the results on the legal tone are more mixed and not fully supportive of the *trade-off* hypothesis, the findings on negative tone confirm that the intensity of tone distortion when a company in a conflict of interest is reported about varies across newspapers (the cross-difference among all the coefficients is always statistically significant at the 1% level).[9] Among the outlets considered, the political exposed *Il Giornale* exhibits the greatest indulgence towards firms in a conflict of interest. Its articles show a significantly less negative tone when firms in a conflict of interest are covered (-0.74% of negative words). The coefficient of the interacted term is indeed four times larger than the more reputable *La Repubblica*. To the contrary, although statistically significant, the distance among the coefficients of the three largest and most reputable newspapers appears modest. When they report about connected firms, these newspapers use from 0.10% to 0.26% fewer negative words than for any other (unconnected) companies. Quite surprisingly, the less reputable *Il Resto del Carlino* shows no effect in terms of use of negative words for related companies. However, when we also interact (model 3) the newspaper dummy with the ownership share of the company in a conflict of interest, we document an effect. Specifically, when *Il Resto del Carlino* reports about firms with larger shares, the number of negative words significantly decreases. One standard deviation in its related party ownership share (15.02%, unreported) is associated with 0.16% fewer terms in the news articles in a conflict of interest. While all the five coefficients are negative and highly statistically significant, *Il Giornale* still presents the largest effect. One standard deviation in the ownership share is associated with -0.20% of negative

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[9] Result not shown for sake of space.

words (compared to -0.14%, -0.05% and -0.09% of *Corriere della Sera*, *La Repubblica* and *La Stampa*, respectively).[10]

4.4. Firms in a conflict of interest and coverage

As a final research question, we investigate whether the same type of conflict of interest impacts also on the level of newspapers coverage. In other words, we aim at verifying whether the same newspaper produces a larger number of articles or allocate more room in the printed edition (as measured by the total number of words) when they report about a firm to which they are connected to through an ownership tie.

Previous analyses have been carried out at the article level (as unit of observation). For this investigation we need to group the N articles that each newspaper i has produced for the company j for every year t, and compute the average (across N) of number of hits and number of words. As hardly the relationship between the conflict and the coverage is linear, we compute the log of these two metrics obtaining the variables *Number of Articles* (log(1+number of hits)) and *Total Number of Words* (log(1+number of words)).[11] Table 6 shows that companies in a conflict of interest are significantly more covered both in term of number of articles (model (1)) and space allocated in the printed edition (i.e., number of words – model (2)). Their coefficients are also economically important, as newspapers in average produce 6.7 more articles for a connected company than for any other unrelated firm. This figure is 5.4% (35%) of the average (median) newspaper coverage.

Insert Table 6 about here

5.   Conclusions

The independence of the media is an essential attribute for guaranteeing that the information reported is not biased or slanted in favor of specific expressions of interest. This condition is highly necessary given the profound influence that the media can exert

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[11] The different unit of observation obviously affects the observations in the regression analysis.

upon social, political and economic life. While reputation can act as a competing force against potential conflicts of interest which may push the media to publish distorted information in order to favor subjects close to the publishing companies, to what extent newspapers are effectively free from such concerns is an open and somewhat unaddressed question.

In this paper we look at the potential conflict of interest arising from an ownership relationship between the newspaper and the company the newspaper is reporting on. We conjecture that newspapers may report more diffusely or more favorably on companies with which they are connected through ownership ties. Measuring the article tones with the fraction of words associated to specific sentiments (as in Loughran and McDonald,2011) and the firm's coverage (with the number of articles and their length), we test our hypothesis using approximately 123 thousand articles from the five largest Italian newspapers .

We present evidence that the conflict of interest affects the editorial style of newspapers. Newspapers show a more benevolent tone (as measured by fewer negative and uncertain words) and a higher coverage for companies that are connected to the publishing firm through ownership ties. We also document that the news slant is increasing with the magnitude of the ownership stake and decreasing with the reputation of the newspaper.

References

Ahern, Kenneth, and Denis Sosyura. 2014. "Who Writes the News? Corporate Press Releases during Merger Negotiations." *The Journal of Finance* 69(1): 241–291.

Dai, Lili, Jerry T Parwada, and Bohui Zhang. 2015. "The Governance Effect of the Media's News Dissemination Role: Evidence from Insider Trading." *Journal of Accounting Research* 53(2): 331–366.

DellaVigna, Stefano, and Johannes Hermle. 2014. "Does Media Concentration Lead to Biased Coverage? Evidence from Movie Reviews." *Working Paper*.

DellaVigna, Stefano, and Ethan Kaplan. 2007. "The Fox News Effect: Media Bias and Voting." *The Quarterly Journal of Economics* 122(3): 1187–1234.

Durante, Ruben, and Brian Knight. 2012. "Partisan Control, Media Bias, and Viewer Responses: Evidence From Berlusconi's Italy." *Journal of the European Economic Association* 10(3): 451–481.

Dyck, Alexander, David Moss, and Luigi Zingales. 2008. "Media Versus Special Interests". *NBER Working Paper* 14360.

Dyck, Alexander, and Luigi Zingales. 2003. "The Media and Asset Prices." *Working Paper*.

Engelberg, Joseph E., and Christopher A. Parsons. 2011. "The Causal Impact of Media in Financial Markets." *The Journal of Finance* 66(1): 67–97.

Faccio, Mara, and Larry H. P. Lang. 2002. "The Ultimate Ownership of Western European." *Journal of Financial Economics* 65: 365–395.

Fang, Jieyan, Alexander Kempf, and Monika Trapp. 2014. "Fund Manager Allocation." *Journal of Financial Economics* 111(3): 661–674.

Fang, Lily, and Joel Peress. 2009. "Media Coverage and the Cross-Section of Stock Returns." *The Journal of Finance* 64(5): 2023–2052.

Gurun, Umit G., and Alexander W. Butler. 2012. "Don't Believe the Hype: Local Media Slant, Local Advertising, and Firm Value." *The Journal of Finance* 67(2): 561–598.

Hillert, Alexander, Jacobs Heiko, and Sebastien Müller. 2014. "Media Makes Momentum." *Review of Financial Studies* 27(12): 3467–3501.

Houston, Joel F., Chen Lin, and Yue Ma. 2011. "Media Ownership, Concentration and Corruption in Bank Lending." *Journal of Financial Economics* 100(2): 326–350.

Huberman, Gur, and Tomer Regev. 2001. "Contagious Speculation and a Cure for Cancer: A Nonevent That Made Stock Prices Soar." *The Journal of Finance* 56(1): 387–396.

Joe, Jennifer R., Henock Louis, and Dahlia Robinson. 2009. "Managers' and Investors' Responses to Media Exposure of Board Ineffectiveness." *Journal of Financial and Quantitative Analysis* 44(03): 579-605.

Kuhnen, Camelia M., and Alexandra Niessen. 2012. "Public Opinion and Executive Compensation." *Management Science*, 58(7): 1249-1272.

Liu, Baixiao, and John J. McConnell. 2013. "The Role of the Media in Corporate Governance: Do the Media Influence Managers' Capital Allocation Decisions?" *Journal of Financial Economics* 110(1): 1–17.

Loughran, Tim, and Bill McDonald. 2011. "When Is a Liability Not a Liability? Textual Analysis, Dictionaries, and 10-Ks." *The Journal of Finance* 66(1): 35–65.

Miller, Gregory S. 2006. "The Press as a Watchdog for Accounting Fraud." *Journal of Accounting Research* 44(5): 1001–33.

Peng, Lin, and Wei Xiong. 2006. "Investor Attention, Overconfidence and Category Learning." *Journal of Financial Economics* 80(3): 563–602.

Peress, Joel. 2014. "The Media and the Diffusion of Information in Financial Markets: Evidence from Newspaper Strikes." *The Journal of Finance* 69(5): 2007–43.

Reuter, Jonathan, and Eric Zitzewitz. 2006. "Do Ads Influence Editors? Advertising and Bias in the Financial Media." *Quarterly Journal of Economics* 121(1): 197–227.

Solomon, David H., Eugene Soltes, and Denis Sosyura. 2014. "Winners in the Spotlight: Media Coverage of Fund Holdings as a Driver of Flows." *Journal of Financial Economics* 113(1): 53–72.

Tetlock, Paul. 2011. "All the News That's Fit to Reprint: Do Investors React to Stale Information?" *Review of Financial Studies* 24(5): 1481–1512.

Tetlock, Paul. 2007. "Giving Content to Investor Sentiment: The Role of Media in the Stock Market." *Journal of Finance* 62(3): 1139–68.

Zanchetta Eros and Marco Baroni 2005. "Morph-it! A free corpus-based morphological resource for the Italian language" *proceedings of Corpus Linguistics*, University of Birmingham, Birmingham, UK.

Tables

Newspaper	Publishing Firm	Circulation	% on Total Daily Newspaper	Listed	Type of control	Equity Structure	1st Shareholeder	1st Shar. VR	2nd Shar. VR	Firms in conflict of interest		Number of articles		
										Year avg	All	Total	In C. of Int.	%
Corriere della Sera	RCS Mediagroup SPA	590,648	9.62%	Yes	*SA*	*DC*	Mediobanca SPA	14.94%	10.50%	18.80	21	24,130	8,723	36.15%
La Repubblica	Gruppo Editoriale L'Espresso SPA	570,363	9.29%	Yes	*FF*	*1S1V*	*CIR SPA*	53.88%	11.95%	5.00	5	32,119	1,381	4.30%
La Stampa	Editrice La Stampa SPA	369,794	6.02%	No	*FF*	*1S1V*	*Fiat SPA*	100.00%	--	4.00	5	19,946	3,249	16.29%
Il Giornale	Società Europea di Edizioni SPA	248,251	4.04%	No	*FF*	*1S1V*	*PBF SRL*	46.02%	36.89%	3.00	3	22,498	1,783	7.93%
Il Resto del Carlino	Poligrafici Editoriale SPA	173,427	2.82%	Yes	*FF*	*1S1V*	*Monrif SPA*	64.37%	10.26%	2.60	3	24,703	751	3.04%
TOTAL		*1,952,483*	*31.80%*							*33.40*	*37*	*123,396*	*15,887*	*12.85%*

Table 1. Summary statistics. The table shows descriptive statistics about the ownership structure of the top five newspapers in Italy. As referred to 2011, for each newspaper we report: the publishing firm; whether it is listed on an exchange; the Type of Control (FF = Family Firm as ultimate shareholder, SA = Shareholder Agreement); the type of Equity Structure (DC= Dual Class, 1S1V = one share one vote); the name of the first shareholder of the publishing firm; the percentage of voting rights owned by the first and by the second shareholder. As referred to the whole sample period (2007-2011) and each newspaper, we also report: the yearly average number of listed firms in a conflict of interest; the overall number of listed firms and financial firms in a conflict of interest. The last three columns indicate the total number of articles, the number of articles referred to firms in a conflict of interest and its percentage of total articles.

Panel A: Coverage - Articles Level	Obs	Mean	Median	Std. Dev.	Conflict	Not in conflict	Diff	t-statistics	
Words (number)	123,396	340.29	262	241.43	388.13	333.24	54.89	26.83	***
Positive (%)	123,396	1.69%	1.41%	1.29%	1.67%	1.69%	-0.02%	-2.21	**
Negative (%)	123,396	2.24%	2.01%	1.54%	2.05%	2.26%	-0.22%	-16.72	***
Uncertain (%)	123,396	1.12%	1.04%	0.91%	1.12%	1.11%	0.01%	9.25	***
Legal (%)	123,396	1.25%	0.97%	1.18%	1.11%	1.27%	-0.16%	-15.17	***
Weak modal (%)	123,396	0.41%	0.28%	0.51%	0.46%	0.40%	0.06%	14.00	***
Strong modal (%)	123,396	0.45%	0.38%	0.49%	0.49%	0.45%	0.04%	10.43	***

Panel B: Coverage - Newspaper level	Obs	Mean	Median	Std. Dev.	Min	Max
N. Articles	1,102	111	17	264	1	3,285
Total Words	1,102	38,030	5,195	100,160	73	1,482,365
N. Articles (Within S.)	151	374	206	501	1	3,285
Total Words (Within S.)	151	132,498	69,724	201,974	280	1,482,365

Panel C: Ownership	Obs	Mean	Median	Std. Dev.	Min	Max
Conflict Dummy	123,396	0.13	0.00	0.33	0.00	1.00
Ownership Share	123,396	5.07%	0.00%	19.13%	0.00%	100.00%
Control Dummy	123,396	0.05	0.00	0.22	0.00	1.00

Table 2. summary statistics. The first panel (Panel A) reports the descriptive statistics of the article tones (Positive, Negative, Uncertain, Legal, Weak Modal and Strong Modal) as in Loughran and McDonald (2011). The tones' average frequencies are then reported both for those articles which are in a conflict of interest and for those which are not. Mean differences tests are reported in the last column. Panel B shows the data about the quantity of coverage, measured as both number of articles and number of words, at the firm-newspaper level. The within sample considers only firms having a relevant ownership share in at least one newspaper. Panel C reports the summary statistics about the ownership variables used: a conflict dummy equal to one if there is a relevant linkage, an ownership share measuring the size of the linkage, and a control dummy equal to one if the firm is controlling the considered newspaper.

	(1) Positive	(2) Negative	(3) Uncertain	(4) Legal	(5) M. Weak	(6) M. Strong
Conflict Dummy	-0.0244	-0.277***	-0.0129	-0.0377***	-0.0103	0.00411
	(-1.64)	(-15.59)	(-1.08)	(-2.80)	(-1.15)	(0.50)
Constant	0.0147***	0.0234***	0.0118***	0.0160***	0.00258***	0.00328***
	(36.25)	(48.37)	(36.57)	(43.50)	(10.62)	(14.64)
Newspaper Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	123,396	123,396	123,396	123,396	123,396	123,396

t statistics in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Table 3. Regression analysis. Tobit regressions of the article tones (Positive, Negative, Uncertain, Weak Modal and Strong Modal) on a dummy variable equal to 1 when the firm in the article is defined as in a conflict of interest for ownership ties (Conflict Dummy), controlling for newspaper fixed-effects, year fixed-effects, and firm fixed-effects.

| | (1) | (2) | (3) | (4) |
	Negative	Legal	Negative	Legal
Conflict Dummy	-0.00137***	-0.000307*	-0.00164***	-0.000393***
	(-6.57)	(-1.96)	(-8.35)	(-2.67)
Ownership Share	-0.00322***	-0.000176		
	(-8.86)	(-0.64)		
Control Dummy			-0.00254***	0.0000674
			(-8.25)	(0.29)
Constant	0.0147***	0.0230***	0.0117***	0.0159***
	(36.18)	(47.50)	(36.08)	(43.22)
Newspaper Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	123,396	123,396	123,396	123,396

Table 4. Regression analysis. Tobit regressions of the article tones (Negative, Legal) on a dummy variable equal to 1 when the firm in the article is defined as in a conflict of interest for ownership ties (Conflict Dummy) and the Ownership Share (models 1 and 2) and a dummy indicating the ownership linkage big enough to indicate control (models 3 and 4). All the models are estimated controlling for newspaper fixed-effects, year fixed-effects, and firm fixed-effects.

ITALY	(1) Negative	(2) Legal	(3) Negative	(4) Legal
C_Dummy & Corriere della Sera	-0.00221***	0.00270***		
	(-11.36)	(20.89)		
C_Dummy & La Repubblica	-0.00180***	-0.000309		
	(-3.19)	(-0.82)		
C_Dummy & La Stampa	-0.00264***	-0.000886***		
	(-7.80)	(-3.92)		
C_Dummy & Il Giornale	-0.00742***	-0.000603*		
	(-14.01)	(-1.69)		
C_Dummy & Il Resto del Carlino	0.00165	-0.00138*		
	(1.37)	(-1.70)		
Own. Sh. & Corriere della Sera			-0.00907***	-0.00697***
			(-11.35)	(-11.18)
Own. Sh. & La Repubblica			-0.00352***	-0.00663***
			(-4.07)	(-9.85)
Own. Sh. & La Stampa			-0.00257***	-0.00344***
			(-7.58)	(-12.96)
Own. Sh. & Il Giornale			-0.0382***	0.0126***
			(-14.04)	(6.00)
Own. Sh. & Il Resto del Carlino			-0.0104***	0.00366
			(-3.16)	(1.41)
Constant	0.0242***	0.0114***	0.0242***	0.00932***
	(52.98)	(37.36)	(52.95)	(26.15)
Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes
Observations	123,396	123,396	123,396	123,396

t statistics in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Table 5. Regression analysis. Tobit regressions of the article tones (Negative, Legal) on the interaction of the newspaper and the dummy variable for firms in a conflict of interest (models 1 and 2) and the interaction of the newspaper and the ownership share (models 3 and 4). The models still control for year fixed-effects and firms fixed-effects.

Coverage: All Sample			
	(1)		(2)
	Number of articles		*Total Number of Words*
Conflict Dummy	2.037***		2.404***
	(7.09)		(7.02)
Constant	2.343***		7.944***
	(5.70)		(16.22)
Newspaper Fixed Effects	*Yes*		*Yes*
Industry Fixed Effects	*Yes*		*Yes*
Observations	1102		1102

t statistics in parentheses
* p<0.10, ** p<0.05, *** p<0.01

Table 6. Regression analysis. The effects on coverage. OLS regressions of the coverage variables (Number of Articles and Total Number of Words) on a dummy variable equal to 1 when the firm in the article is defined as in a conflict of interest for ownership ties (Conflict Dummy), controlling for newspaper fixed-effects, and firm fixed-effects.