

The Effect of Media Coverage on Target Firms' Trading Activity and Liquidity around Domestic Acquisition Announcements: Evidence from UK

Louise Gorman

College of Business, Technological University Dublin

Theo Lynn

Irish Institute of Digital Business, Dublin City University

Eleonora Monaco

Católica Porto Business School

Riccardo Palumbo

University of Chieti-Pescara

Pierangelo Rosati*

Irish Institute of Digital Business, Dublin City University

Forthcoming on The European Journal of Finance

*Authors in alphabetical order. Corresponding author: DCU Business School, Collins Avenue, Glasnevin, Dublin 9, Dublin, Ireland. Email: pierangelo.rosati@dcu.ie.

Acknowledgement: The research work described in this paper was partially supported by the Irish Centre for Cloud Computing and Commerce, an Irish National Technology Centre funded by Enterprise Ireland and the Irish Industrial Development Authority, by the European Capital Markets Cooperative Research Center (ECMCRC), and by the Irish Institute of Digital Business. The authors would also like to thank the Editor (Prof. Chris Adcock), the two anonymous reviewers, and the attendees of the International Symposium in Finance 2019 and of the 2nd ECMCRC Workshop for their feedback.

Abstract

This study investigates the effect of news media coverage on trading activity in, and the liquidity of, target firms' shares around acquisition announcements. We use the number of articles published in four of the UK's main newspapers as a proxy for media coverage. Our dataset includes 350 UK domestic acquisition deals between 1996 and 2014. The results of our analysis suggest that media coverage is positively associated with target firms' trading activity and stock liquidity. This is consistent with the media playing a key role in mitigating information asymmetry in the financial markets. This study contributes to the literature on stock market reactions to acquisition announcements by investigating the effect of media coverage on trading activity and stock liquidity beyond the price run-up, and by providing additional insights into the UK market which traditionally attracts less attention than the US market.

Keywords: Mergers and Acquisitions; Target Firms; Trading Activity; Media Coverage; Information Asymmetry; Stock Liquidity.

JEL classification codes: G14; G34.

1. Introduction

Acquisition announcements are often preceded by a surge in trading in the target firm's shares (Aspris et al., 2014; Siganos and Papa, 2015). Targets tend to experience high trading volumes and abnormal returns prior to the announcement as investors rebalance their holdings in the firm (Keown and Pinkerton, 1981; Siganos and Papa, 2015). The environment in which such activity typically occurs is usually characterised by high information asymmetry (Hansen, 1987; Fishman, 1989) with some investors having access to more confidential information than others (Myers and Majluf, 1984). Yet, the high level of trading activity suggests that the market is at least partially aware of an upcoming offer before its official announcement (Jarrell and Poulson, 1989). The incidence of abnormal trading volumes, abnormal stock returns, and a share price run-up prior to the announcement of an acquisition bid in targets is well documented in the mergers and acquisitions literature (Keown and Pinkerton, 1981; Jensen and Ruback, 1983; Holland and Hodgkinson, 1994; Kryzanowski and Lazrak, 2007; King, 2009; Siganos and Papa, 2015; Dutordoir et al., 2018).

The market expectation hypothesis (Jensen and Ruback, 1983) offers one possible explanation for the pre-announcement target share price run-up. Under this hypothesis, investors anticipate a merger or acquisition based on legitimate signals, and their trading reflects this anticipation in the target's share price. Such signals, which include rumours published in the media (Jarrell and Poulson, 1989; Holland and Hodgkinson, 1994; Siganos and Papa, 2015), drive trading behaviour as investors rebalance their holdings to conform to updated market expectations about future cash flows and risks (Kryzanowski and Lazrak, 2007).

An alternative explanation for the pre-announcement target share price run-up is offered by the insider trading hypothesis (Keown and Pinkerton, 1981) which assumes that information about the announcement is revealed to the market through the trading behaviour of insiders. Insider trading has been found to constitute most of the pre-announcement abnormal trading volume (Meulbroek, 1992; Chakravarty and McConnell, 1997). Tang and Xu (2016) examine instances of authorised (by US regulatory authorities) and unauthorised insider trading and find that pre-announcement run-ups are significantly greater in cases of unauthorised insider trading. Interestingly, unauthorised cases subject to media coverage lead to lower pre-announcement run-ups. This suggests that run-ups are significantly more likely in firms with undetected insider trading. In effect, the media may monitor illegitimate insider trading, thereby serving to deter its incidence.

King (2009) argues that trading which conforms to the market expectations hypothesis has identifiable characteristics, which change as the announcement date approaches. Initially, there is high trading volume without significant price changes due to high uncertainty and investor heterogeneity. Closer to the date of the announcement, as uncertainty reduces, trading intensifies and stock returns exhibit positive autocorrelation accompanied by large trading volumes. Finally, upon announcement, there is a palpable market reaction as residual risk diminishes. Using a sample of Canadian deals occurring between 1985 and 2002, King discerns a pattern more consistent with the markets expectations hypothesis than the insider trading hypothesis. Specifically, he detects serially correlated abnormal volume, without abnormal returns, and a pattern of return reversal in the weeks leading up to the announcement. A share price run-up shortly before the announcement, significantly positive returns, and significant share volume are also observed. Notably, larger run-ups are detected between 1998 and 2002; these are attributed to a greater prevalence of rumours coinciding with

increased media activity. As such, the evidence supporting the market expectations hypothesis, to an extent juxtaposes that in support of the insider trading hypothesis. The former suggests that a strong media presence may lead to a higher share price run-up, as it signals a potential acquisition announcement, while the latter implies the media's presence may lead to a lower run-up by deterring insider trading.

A number of studies conclude that pre-announcement run-ups may be partly explained by both hypotheses to different extents. Jabbour et al. (2000) find that pre-announcement run-ups in Canadian targets of mergers are initially caused by insider trading; yet, as the announcement date approaches and the incidence of insider trading is revealed through the news media, the run-up is driven by market anticipation of the bid. This would suggest that the two explanations are mutually exclusive. Findings of a study of announcements of offers for UK targets by Siganos and Papa (2015), however, indicate that both hypotheses may be valid concurrently. The authors find that the run-up begins 60 days before the announcement, and that rumours published in the Financial Times (FT) impact returns and significantly impact trading volume. The impact of the FT rumours reflects market expectations. The run-up is also consistent with the UK context where insider transactions are strongly indicated. A contemporaneous relationship detected between returns and trading volume further indicates the incidence of insider trading. They conclude that the proxy partly explains target price run-ups, while part may be due to information asymmetry.

The information asymmetry model (Copeland and Galai, 1983; Glosten and Milgrom, 1985) assumes two types of traders: (i) informed traders, who trade because they have private information not currently reflected in prices; and (ii) liquidity traders, who trade for other reasons. Market makers may make losses by trading with informed traders and compensate themselves through the bid-ask spread. A complete quote includes the bid and ask prices, the best prices available for sales and purchases respectively, and the depth, the number of shares available at each price. If market makers believe that some traders possess superior information, they will increase the bid-ask spread or quote less depth. Therefore, greater information asymmetry between informed and liquidity traders should result in a wider bid-ask spread, a reduction in depth, or both.

The information asymmetry model has been employed extensively to examine market behaviour surrounding various firm-level and broader macroeconomic announcements. In the context of earnings announcements which, similar to acquisition announcements, have significant price effects, Lee et al. (1993) conduct a series of event studies of liquidity shifts in the four-day period surrounding the announcements. They detect an increase in spreads and a decrease in depths beginning at least one full trading day prior to the announcement. This suggests that liquidity providers anticipate the timing of earnings news and are able to discern important news announcements. Spreads increase dramatically in the half-hour surrounding the announcement and remain wider than those observed during non-announcement periods for up to one day. Depths return to non-announcement levels after three hours. This is consistent with higher information asymmetry after the announcement. The earnings announcement is a noisy signal and the ability of certain traders to interpret it is superior to others (Kim and Verrecchia, 1991). Public disclosure of the announcement and the subsequent high trading volumes increase information asymmetry risk to market makers, resulting in reduced liquidity.

Chordia et al. (2001) provide some longer-term insight into market liquidity by examining aggregate market spreads, depths, and trading activity for US equities surrounding macroeconomic

announcements. Their findings indicate increased trading activity over time with reduced trading costs, in terms of spreads. Depth and trading activity increase just prior to certain announcements but there is no significant impact on bid-ask spreads. On the day of the announcement, depth falls back toward its normal level. This pattern is consistent with differences in anticipation about the content of the forthcoming announcements and a concomitant flurry of prior uninformed trading. Increased trading is induced by differences of opinion prior to the announcement, which, being conducted by uninformed traders, is accommodated by dealers offering greater depth. The depth pattern is also consistent with an increase in the number of informed traders as the announcement day approaches. Competition among this larger number of informed traders may reduce asymmetric information costs to dealers and result in higher liquidity (Admati and Pfleiderer, 1988).

Various approaches have been taken to measure information asymmetries and their impact on trading activity and liquidity in the context of M&A announcements (Draper and Paudyal, 1999; Monaco et al., 2018; Arouri et al., 2019). Kryzanowski and Lazrak (2007) find that permanent trading costs, a portion of which is related to asymmetric information, fall for both parties post-announcement. This effect is particularly visible for targets of cash offers since cash offers typically signal the potential to increase the target's value under the bidder's control (Myers and Majluf, 1984; Hansen, 1987; Faccio and Masulis, 2005). Lipson and Mortal (2007) find an average improvement in liquidity around mergers and acquisitions to the extent that spreads drop and quoted depth increases for bidding firms. The reductions in spreads are attributed to the accompanying changes in firm characteristics, rather than to the merger or acquisition itself. Specifically, spreads decline as analyst coverage, trading volume, or firm size increase, and as the variability of returns decreases. Quoted spreads decrease as the number of shareholders in the entity increases, reflecting trading costs for small order sizes. Depth increases as trading volume or firm size increase, or as the variability of returns decreases. When the adverse selection and order processing components of spreads are considered in isolation, adverse selection is found to decline with increases in analyst following, the number of shareholders, trading volume, and firm size; it increases with firm volatility. A decrease in order processing costs instead is observed when the number of market makers increases. These results suggest that much of the improvement in liquidity, and a reduction in trading costs, are related to changes in the degree of information asymmetry.

In the context of the market expectation hypothesis, investors may anticipate a merger or acquisition based on signals such as those provided by the news media (Jarrell and Poulson, 1989). Reports citing insiders' indications of possible acquisitions, target management underperformance and the hiring of M&A advisors as well as those analysing potential synergies are considered reliable signals of forthcoming acquisition announcements by the market (Betton et al., 2018). Such signals may align information asymmetry, triggering pre-bid trading in the shares of target firms (Kryzanowski and Lazrak, 2007; Croci et al., 2012; Betton et al., 2018). Empirically, published news has been found to improve the market's ability to anticipate the timing and targets of acquisition bids (King, 2009). Hence, news media reporting serves to proxy for an informed market prior to the announcement of an acquisition bid (Holland and Hodgkinson, 1994; Siganos and Papa, 2015). Indeed, the market expectation hypothesis is argued to be more applicable to developed markets both because information is less likely to be conveyed through insider trading, and due to the superior quality of the news media (Griffin et al., 2011).

A body of evidence, however, exists to suggest that the media's impact on trading activity may be attributable to its ability to capture the attention of retail investors rather than to its capacity to communicate value-relevant information to a broader range of market participants. News and alternative online media coverage has been found to direct retail investors' attention towards shares in the firms featured. This leads to a net increase in the purchase of such stocks by retail investors causing extreme trading and returns and improved liquidity (Barber and Odean, 2008; Da et al., 2011; Ding and Hou, 2015). As such, it is possible that increases in trading activity and liquidity around acquisition announcements are an outcome of increased retail investor recognition of target shares rather than the market's processing of information regarding the bid's likely outcome and the wealth effects thereof.

The United Kingdom (UK) presents an attractive setting in which to consider the newspaper media's influence on the stock market's behaviour around acquisition announcements. The UK, like the US, hosts an active market for corporate control but is situated in a notably different regulatory environment. Under the Rules of the UK Takeover Code, a bidder must inform the target board, before any other party, of its intention to make an offer¹. Prior to its announcement, relevant parties are advised to take necessary measures to prevent leaks of information regarding the offer². While new information on the development of a bid may not be disclosed to the media³, parties to an offer are instructed not to mislead the media over the course of a bid⁴. Furthermore, insider dealing constitutes both a civil⁵ and criminal⁶ offence, while unlawful disclosure of inside information is a civil offence⁷. In this environment where bidder and target communications regarding potential offers is tightly controlled and insider trading strictly prohibited, information asymmetries may be particularly acute. An active and reliable newspaper media, such as that in the UK, may thus have a palpable influence.

The literature indicates that the media performs a potentially significant role in reducing information asymmetry around the announcement of an acquisition offer. Under the market expectation hypothesis, legitimate sources, such as the media, align information asymmetries by signalling potential acquisition bids to investors (Jarrell and Poulson, 1989; Kryzanowski and Lazrak, 2007; Croci et al., 2012). This is particularly likely in developed markets, such as the London Stock Exchange, where reliable information is more likely to be circulated through an active news media, rather than through the strictly regulated act of insider trading (Griffin et al., 2011). In light of the mixed evidence in support of the market expectations hypothesis, this study further examines the extent to which it provides an explanation for the pre-announcement run-up. We hypothesise that newspaper reports provide signals to the markets regarding impending acquisition announcements such that greater newspaper media coverage is positively associated with target firms' trading activity and liquidity around the announcements. Despite being recognised as a proxy for an informed market, the media's precise influence on market behaviour has not been exhaustively assessed. Extant research by Aspris et al. (2014) and Siganos and Papa (2015), focuses primarily on price run-up and adopts coverage by only one newspaper, the FT. In contrast, we employ a dataset including articles

¹ The UK Takeover Code (12th Ed.), Rule 1.

² The UK Takeover Code (12th Ed.), Rule 2.1.

³ The UK Takeover Code (12th Ed.), Rule 20.1.

⁴ The UK Takeover Code (12th Ed.), Rule 2.8.

⁵ The Financial Services and Markets Act 2000, s. 118(2).

⁶ The Criminal Justice Act 1993, Section 52.

⁷ The Financial Services and Markets Act 2000, s. 118(3).

published in four of the UK's main newspapers before the announcement of UK acquisition deals occurring between 1996 and 2014.

In order to test our hypothesis, we investigate a sample of 350 UK domestic deals announced between 1996 and 2014. We measure trading activity as trading volume and number of trades per day; we measure stock liquidity using the bid-ask spread. The extent of media coverage is measured as the number of articles published in four UK newspapers, three broadsheet newspapers (the FT, The Guardian, and The Times) and a daily tabloid newspaper, the Daily Mirror. These newspapers have a circulation that reaches a significant portion of the capital, labour and product markets, reaching professional and retail investors as well as broader company stakeholders. As the UK's main financial broadsheet newspaper, the FT has extensive circulation in the investment community. Yet, the market's response to an M&A announcement may impact retail investors who access information through the general media (Fang and Peress, 2009; Ding and Hou, 2015). Furthermore, the response may be influenced by the wider social gains or losses arising from the deal (Arouri et al., 2019). Hence, it is also important to consider the publicity surrounding a deal in a broader context. Thus, we include two additional broadsheet newspapers, The Guardian and The Times, that are among the most widely circulated newspapers among the National Readership Survey (NRS) ABC1 social grade, which comprises managerial, administrative, professional, supervisory and clerical workers (PAMCo, 2020). To ensure potential newspaper reach to all social classes is captured, we include the most popular newspaper in the UK among the NRS C2DE social grade and among all adults more generally, the Daily Mirror (PAMCo, 2020). The inclusion of these four major newspapers in this study represents not only a comprehensive range of commentary on potential bids but circulation to a wide range of the UK populace from differing socio-economic backgrounds.

We employ our stock market and newspaper media measures to examine how changes in the number and volume of trades in targets' shares, and the level of these shares' liquidity are associated with media coverage over a 30-day time period prior to their announcement. By implementing a series of univariate and multivariate tests and controlling for time series patterns and other characteristics of deals, we find that media coverage is associated with higher trading activity and with a higher level of stock liquidity. These findings align with the idea of media coverage playing a key role in mitigating information asymmetries in financial markets.

This study contributes to the literature in a number of ways. First, while most of the literature on the market impact of acquisition announcements focus on the price run-up, we move beyond such an effect to investigate changes in the overall market activity and liquidity around the announcement. Secondly, while most studies in the M&A literature focus on US firms, our study investigates UK target firms and, as such, provide evidence that allows us to make inferences about market reaction to acquisition announcement within a different regulatory framework and a more transparent market for corporate control. Thirdly, while previous attempts to investigate the role of media coverage in and around acquisition announcements focus on one newspaper only (e.g. FT), investors are likely to gather information from a wider number of media outlets that have been ignored so far. Moreover, as noted above, investors' impressions of the wealth effects of potential deals may be influenced by their broader socio-economic impact. Our study overcomes such a limitation by adopting a much wider range of newspaper media coverage that includes four of the UK's main newspapers i.e. the FT, the Guardian, the Times and the Daily Mirror. As such, our study provides a unique setting for

investigating the wider impact of media coverage of target firms' trading activity and liquidity around acquisition announcements.

The rest of this paper proceeds as follows. Section 2 presents the data and sample adopted in the study. Descriptive statistics and our univariate analysis is presented in Section 3. Section 4 discusses the methodology employed in our multivariate analysis and the results thereof. Section 5 presents our robustness tests while Section 6 draws our conclusions from the study and makes some suggestions for future research.

2. Sample and Data

We construct our sample starting with all acquisitions recorded on the Reuters ThomsonOne database announced up to April 2014 where the target firm was listed on the London Stock Exchange at the time of the announcement (2,043 deals). We then exclude those deals where the acquirer was not listed in the London Stock Exchange to reduce potential confounding effects that may arise for cross-border deals (e.g., extensive media coverage in other countries). We also exclude deals involving less than 50 percent of target equity, and deals where the target or the acquirer had a market value lower than one million dollars four weeks prior the announcement. Finally, we exclude from our sample those deals where market data for the target firm was not available from 250 days before to 10 trading days after the announcement date. The majority of the deals deleted at this stage of the sampling are due to the fact that transaction data is only available on Thomson Reuters Tick History (TRTH) from January 1996 while ThomsonOne goes back as far as 1986. The final sample comprises 350 acquisition deals. Table 1 provides an overview of our sampling process while Table 2 provides an overview of the number of announcements in our sample and across industries. Consistent with the sample used in Siganos and Papa (2015), the late 1990s and mid-2000s are characterised by a higher volume of mergers. We also find evidence of merger waves within our dataset (Mitchell and Mulherin, 1996; Siganos and Papa, 2015). The industrial, media and entertainment, and consumer products and services sectors are the three most represented sectors in our sample.

Insert Table 1 here

Insert Table 2 here

Additional data about the characteristics of the deals, and of the firms involved, is retrieved from the ThomsonOne database. This includes the main methods of payment⁸ (e.g., cash, stock, mixed etc.), deal value, financial positions and industry sectors of both targets and acquirers.

Tick-by-tick trading data is retrieved from the TRTH database. This database provides access to high-frequency data on both trades and quotes with the corresponding prices and volumes. Media coverage data is collected using LexisNexis PowerSearch. For each target firm we collect articles which satisfy the following search criteria. Firstly, they must contain the name of the target or the acquirer firm together with certain keywords⁹ typically associated with acquisition news or rumours. These terms may appear either in the title, headline, or in the main text of the article. Secondly, they must have

⁸ According to prior studies (Barbopoulos and Sudarsanam, 2012; Monaco et al., 2018), methods of payment have been categorised as follows: all-cash payment is equal to 1 when the consideration is 100% cash (0 otherwise); all-stock payment is equal to 1 when the consideration is 100% stock (0 otherwise); mixed payment is equal to 1 when the consideration is mixture of cash, stock and other methods of payment excluding earnout (0 otherwise); earnout is equal to 1 when the consideration includes earnout in addition to cash, stock or mixed payment (0 otherwise).

⁹ merg* OR acqui* OR target OR takeover OR rumour* OR buyout OR bid*.

been published within a 30-day period ending the day before the announcement (-30;-1). Finally, they must have been published in any of the four UK newspapers in our sample i.e. the FT, The Guardian, The Times and the Daily Mirror. Each article is manually reviewed to ensure relevance. Finally, the number of analysts following each target firm is retrieved from the I/B/E/S database.

3. Descriptive Statistics and Univariate Analysis

This section presents some descriptive statistics on our sample and the results of our univariate analysis. Table 3 presents an overview of the extent of media coverage. Panel A reports the number of announcements that were, or were not, covered by any of the four newspapers we considered. The sample is almost evenly split with 55 percent of the announcements with media coverage and 45 percent without coverage within 30 days prior to the announcement. The percentage of announcements covered by more than one newspaper is higher than the one reported by Siganos and Papa (2015)¹⁰ but is more in line with Fang and Peress (2009) who find that 25 to 42 percent of the firms listed on the New York Stock Exchange or NASDAQ had no coverage. Panel B provides a summary of the number of articles per announcement. The majority of the announcements received limited coverage. Specifically, 51 percent of the announcements with coverage were the subject of three articles or less and 21 percent were the subject of only one article. Only 15 percent of the announcements with media coverage were the subject of 10 articles or more. Panel C provides the total number of articles published by the four newspapers in our dataset. Unsurprisingly, the FT published the largest number of articles confirming its prominent role as a financial news provider.

Insert Table 3 here

Table 4 presents an overview of the main characteristics of the deals included in our sample. It is worth noting that deals with media coverage tend to involve, on average, firms with higher market-to-book ratio. This may suggest that media outlets tend to focus more on deals where any of the parties involved has higher growth opportunities. However, media attention may also be driven by the relative size of the deal. In fact, acquirer firms involved in deals covered by the media tend to expose themselves more from a financial standpoint in order to complete the acquisition. Finally, deals with media coverage tend to have larger deal value, involve larger target firms, and to attract the interest of a larger number of financial analysts.

Insert Table 4 here

Figures 1 and 2 present the average daily excess¹¹ volume and number of trades across both subsamples for the period (-30;+10) respectively. Our findings suggest that firms with media coverage tend to have a significantly higher trading volume than firms with no media coverage over the announcement day and the subsequent five days. The difference between the two series is more evident in Figure 2 which indicates that firms with media coverage consistently experience a greater number of trades than firms with no media coverage throughout the analysis period. In order to establish if any difference exists between firms with high and low media coverage, we divide the sample in to two categories. The first, the *Low Coverage* category, comprises those announcements that were the subject of a number of articles in the pre-announcement period below the first tercile

¹⁰ This is somewhat unsurprising as we did not limit our analysis to the FT.

¹¹ Excess volume (number of trades) was measured as the difference between the daily trading volume (number of trades) for each stock in the analysis period (i.e. -30;+10) minus the average daily trading volume (number of trades) for each stock in the estimation period (i.e. -250;-31).

threshold. The second, the *High Coverage* category, comprises those announcements that were the subject of a number of articles in the pre-announcement period above the third tercile threshold. The results, reported in Appendix B, suggest that firms which receive a high level of coverage experience significantly higher trading activity than firms which receive a low level of coverage. Overall, these results suggest that media coverage is associated with an increase in the number of trades in targets' shares and with a contemporaneous reduction in the average order size before acquisition announcements. As informed traders prefer to trade larger volumes at any given price (Easley and O'Hara, 1987), these results contradict the insider trading hypothesis and support the market expectation hypothesis in that newspapers provide signals to the market to trade on.

Insert Figure 1 here

Insert Figure 2 here

Figures 1 and 2 also highlight a significant increase in trading activity post-announcement which is consistent with the release of price sensitive information. In order to test whether media coverage is associated with significant changes in trading activity and information asymmetry, we perform a series of t-tests comparing the average value of our activity and liquidity measures across both the pre- and post-announcement time periods, and across the subsamples of announcements with and without media coverage. Table 5 reports the results of this analysis. The results suggest that, although there is a significant increase in trading activity post-announcement for both subsamples, the change is much more pronounced for the subsample with media coverage. Firms in the media coverage subsample also experience a decrease in percentage spread and price volatility which suggests an increase in stock liquidity.

Insert Table 5 here

We also perform a similar analysis comparing the average values of the same variables across the subsample of the announcements with single *versus* multiple coverage in order to investigate whether the extent of media coverage plays a role in this context. Table 6 presents the results of this second analysis. The results suggest that the increases in trading activity and stock liquidity highlighted above are essentially driven by announcements which have been covered multiple times rather than announcements which have been mentioned in a single article. Specialist financial newspapers might be expected to have a stronger impact on the financial markets. Accordingly, we perform the same analysis on the subsamples of firms covered by different newspapers to examine if coverage by the FT has a more pronounced effect. The results, reported in Appendix C, do not support this argument as only minor differences emerge across the four newspapers, with the Guardian being associated with a larger market reaction than the FT and the others. This is consistent with the greater circulation of this newspaper. Overall, the results of our univariate analysis are consistent with the idea that media coverage plays a role in conveying information to the market around major corporate events, thereby mitigating information asymmetry.

Insert Table 6 here

4. Multivariate Analysis

4.1 Methodology

We adopt a series of multivariate regression models to examine the changes in trading activity and liquidity around the announcements of acquisition deals of the listed targets. The estimation period adopted in this study starts (ends) 250 (10) trading days before (after) the acquisition announcements. Following Hegde and McDermott (2003), we estimate pooled cross-sectional regression models using least squares with White's (1980) heteroscedasticity and autocorrelation consistent covariance matrix. The intercept parameters, α_j differ across securities and capture the variation in the dependent variable across securities. The linear drift term $t\mu$ estimates the average change in the dependent variable per trading day. The coefficients of the series of eleven dummy variables capture change in the dependent variable for each trading day in the event period (-10;+10). Our regression model for trading activity is specified as follows:

$$\begin{aligned} \ln(\text{Trading activity}_{jt}) = & \alpha_j + t\mu + \sum_{i=-10}^{+10} \beta_i Di_{jt} + \beta_i \ln \text{Target Size}_j + \\ & + \beta_i \ln \text{RelSize}_j + \beta_i \text{Dummy Diversifying}_j + \\ & + \beta_i \text{Dummy Stock}_j + \beta_i \ln \text{Analyst Coverage}_j + \\ & + \beta_i \text{Quoted Spread}_{jt} + \beta_i \text{Volatility}_{jt} + \\ & + \beta_i \text{Price Return}_{jt} + \beta_i \text{YearDummies}_t + \\ & + \beta_i \text{IndustryDummies}_t + \varepsilon_{jt} \end{aligned} \quad (1)$$

Where the dependent variable is either the natural logarithm of daily trading volume (number of shares) or daily number of trades for stock j and day t from 250 days before to 10 days after the announcement. Our control variables include: the natural logarithm of the target firm's market value four weeks prior to the announcement date ($\ln \text{TargetSize}$); the natural logarithm of the ratio between the deal value and the market value of the acquirer four weeks prior to the announcement date ($\ln \text{RelSize}$); a dummy variable equal to 1 if the acquirer and the target operate in different industries (i.e. two different 2-digit SIC codes) and 0 otherwise; a dummy variable equal to 1 if stock was the only method of payment and 0 otherwise; the natural logarithm of one plus the number of analysts making fiscal year-end forecasts on the target firm in the previous fiscal year ($\ln \text{AnalystCoverage}$) (Fang and Peress, 2009); the average daily quoted bid-ask spread measured as the daily average difference between the best ask and best bid prices (Quoted Spread) (Chae, 2005); the daily stock price volatility of the target firm (Volatility); daily stock price return of the target firm (Price Return); and year (YearDummies) and industry (2-digit SIC codes) fixed effects (IndustryDummies).

Our regression model for stock liquidity is specified as follows:

$$\begin{aligned} \text{Liquidity}_{jt} = & \alpha_j + t\mu + \sum_{i=-10}^{+10} \beta_i Di_{jt} + \beta_i \ln \text{Target Size}_j + \beta_i \ln \text{RelSize}_j + \\ & + \beta_i \text{Dummy Diversifying}_j + \beta_i \text{Dummy Stock}_j \\ & + \beta_i \ln \text{Analyst Coverage}_j + \beta_i \ln \text{VolumeResidual}_{jt} \\ & + \beta_i \text{Volatility}_{jt} + \beta_i \text{Price Return}_{jt} + \beta_i \text{YearDummies}_t \\ & + \beta_i \text{IndustryDummies}_t + \varepsilon_{jt} \end{aligned} \quad (2)$$

We proxy stock liquidity using the average daily quoted bid-ask spread measured as the daily average difference between the best ask and best bid prices (*Quoted Spread*) (Chae, 2005), and the average daily percentage bid-ask spread, which is calculated as the daily average of:

$$\text{Percentage Spread} = \frac{(\text{Ask} - \text{Bid})}{[(\text{Ask} + \text{Bid})/2]} \quad (3)$$

The control variables included in Equation 2 are presented above with the only exception of the natural logarithm of the orthogonalized trading volume (Graham et al., 2004; Mansi et al., 2004; Lipson and Mortal, 2007). In other words, we regress the natural logarithm of daily trading volume on *LnTargetSize*, *LnAnalystCoverage* and the natural logarithm of the number of media articles and include the residuals of this regression model into the model presented in Equation (2). This is necessary in order to prevent multicollinearity issues (Lipson and Mortal, 2007).

4.2 Results

Table 7 reports the results of the regression model presented in Equation 1 for our full sample and for the subsamples of firms with and without media coverage. The dependent variable is the natural logarithm of daily trading volume across all the regressions. The results suggest that target size, cross-industry acquisitions, stock payment, analyst coverage, price volatility and returns are positively associated with trading volume. In contrast, deal-to-acquirer relative size (*LnRelSize*) and quoted spread are negatively associated with trading volume. For the purpose of our analysis, daily dummies are the main variables of interest. The results clearly show that the announcement triggers abnormal trading volume in target shares and that such abnormal activity lasts up to 10 days after the announcement, although with a decreasing trend. Comparing the subsamples of deals with and without media coverage, it clearly emerges that the magnitude of abnormal trading volume on the announcement day for deals with media coverage is 1.6 times the volume observed for the subsample with no media coverage. Furthermore, deals with no media coverage experience some abnormal trading volume the day before the official announcement (and to some extent in day -3) while deals with media coverage experience abnormal trading volume between eight and four days before the announcement. These findings are consistent with the idea that media coverage helps disseminate information about the upcoming announcement therefore reducing information asymmetry and creating expectations in the market (Chae, 2005).

Insert Table 7 here

Table 8 reports the results of the regression model presented in Equation 1 for our full sample and for the subsamples of firms with media coverage and those with no media coverage where the dependent variable is the daily number of trades. Similar to the results presented in Table 7, target size, cross-industry acquisitions, stock payment, analyst coverage and price volatility are positively associated with the daily number of trades while the deal-to-acquirer relative size (*LnRelSize*) and quoted spread have a negative effect on trading activity. Similarly to trading volume, an abnormal level of trading activity emerges on the day of the announcement and persists for up to 10 days afterwards. Interestingly, the coefficients of the regression on the subsamples of deals with and without media coverage are comparable suggesting a similar increase in number of trades across the two subsamples. However, the effect of the announcement on acquisitions with no media coverage seems to quite more short-lived than those with media coverage. In fact, the former disappears completely after five

trading days. Overall, the results of our analyses on trading activity suggests that, *ceteris paribus*, media coverage is associated with an increase in average trade size from the announcement day up to 10 days after suggesting the involvement of better-informed traders (Huddart and Ke, 2007).

Insert Table 8 here

Tables 9 and 10 report the results of the regression model presented in Equation 2 for our full sample and for the subsamples of firms with media coverage and those with no media coverage where the dependent variable is the quoted bid-ask spread and the percentage bid-ask spread respectively. Our results suggest that target and deal-to-acquirer relative size, stock payment, and returns are positively associated with stock liquidity (i.e. negatively associated with bid-ask spread measures). Cross-industry deals and unexplained volume instead are negatively associated with stock liquidity. This does not come as a surprise as they are typically associated with higher uncertainty. Turning our attention to the daily dummies, it is worth noting that (i) abnormal levels of bid-ask spread are only visible on the announcement day, and (ii) the associated regression coefficient is significantly lower for deals with media coverage than for those with no media coverage. This may suggest that investors are more informed when information has been disclosed through national newspapers and, as such, they can react better and quicker to the announcement.

Insert Table 9 here

Insert Table 10 here

We also perform additional analyses to investigate whether different newspapers have different effects on target firms' trading activity and liquidity while also controlling for the extent of the coverage (i.e. number of articles). The results, reported in Appendix D, only show minor and inconsistent differences suggesting that no clear differences emerge between media coverage provided by newspapers specialising in financial information (i.e. FT) and those catering for a more general audience with a wider range of non-business content.

5. Robustness Tests

5.1 Active investor attention

Da et al. (2011) propose a measure of active investor attention based on the aggregate search volume index (SVI) provided by Google Trends. Ding and Hou (2015)¹² also provide evidence suggesting that such measure of investor attention is positively associated with trading activity and stock liquidity. Given the growing adoption of digital information sources, it is likely the case that investors look for information about potential deals across different sources. As such, our results may be driven by more active investors rather than media coverage per se. In order to test the robustness of our results, we gather SVI data from Google Trends for each target firm and calculated the change in SVI as per Da et al. (2011) and Ding and Hou (2015):

$$\Delta SVI_t = \ln(SVI_t) - \ln[Med(SVI_{t-1} \dots SVI_{t-8})] \quad (4)$$

¹² Ding and Hou (2015) also adopt the amount of advertising spending as a measure of passive investor attention. Unfortunately, this information is not available for UK firms (Ali Shah, 2008) and therefore we cannot include this additional measure to our model.

Where SVI_t is the search volume index during the week prior to the announcement while $SVI_{t-1} \dots SVI_{t-8}$ are the values of SVI during the previous eight weeks. A positive ΔSVI would suggest an increase in investor attention. As Google Trends data is only available from 2004, we had to reduce our sample size to only include deals with relevant data (132 deals).

The results, presented in Appendix E, are consistent with the ones discussed above. As such, we can conclude that our results are robust to the inclusion of active investor attention.

5.2 Propensity Score Matching

Our research design may be subject to endogeneity due to the fact that media coverage is not random. As such, it may be the case that the relationships we find in our analyses may be driven by omitted variables. To control for this potential endogeneity issue, we adopt propensity score matching (PSM) and match each target firm with media coverage against a comparable firm with a similar probability of being covered by the media based on the underlying determinants of media coverage presented by Fang and Peress (2009). In order to do so, we estimate the propensity score of each firm as follows:

$$\begin{aligned} Prob(Media\ Coverage = 1)_j = & a_j + \beta_i LogTargetSize_j + \beta_i BooktoMarket_j + \\ & + \beta_i Med(Price\ Return_j) + \beta_i Med(|Price\ Return_j|) + \\ & + \beta_i Med(Volatility_j) + \varepsilon_{jt} \end{aligned} \quad (4)$$

Where the dependent variable is equal to one if a deal was covered by the media and 0 otherwise; $LnTargetSize$ is the market value of the target firm four weeks before the announcement; and $BooktoMarket$ is the ratio between the book and the market value of equity of a at the previous fiscal year end. Finally, we control for the median daily return and absolute return, and the median volatility in the 30-day period before the announcement. We perform a one-to-one matching with no replacement through which each target firm with media coverage is matched against a target firm with no coverage with the closest propensity score. We could find suitable matches for 45 deals therefore our matched sample includes 90 deals in total. The results, presented in Appendix F, are consistent with the ones discussed above and therefore we can conclude that our results are not driven by endogenous variables.

6. Conclusions and Future Research

This study explores the effect of news media coverage on acquisition targets' trading activity and liquidity around acquisition announcements. Acquisition announcements have attracted significant attention from finance researchers as they are typically characterised by a significant level of information asymmetry. Previous studies of the media's role have typically focused on the impact of coverage by a single newspaper on the pre-announcement price run-up of target firms. Using an original dataset of articles from a range of newspaper sources, this study focuses on the effect of media coverage on target firms' trading activity and liquidity prior to, and in the days following, the announcement. Accordingly, we provide deeper insight into the extent to which the media may align information asymmetry in the market in the M&A context. According to the market expectation

hypothesis, investors anticipate a merger or acquisition based on legitimate signals, such as those conveyed by the media, which ultimately affect their investment strategy. Overall, our results provide support for such a hypothesis as the empirical evidence suggests that acquisition targets that feature in national newspapers experience higher trading activity, in terms of trading volume and number of trades, than targets with no media coverage. Furthermore, acquisition announcements that are already rumoured in the newspaper media have a more curtailed impact on the stock liquidity of targets, relative to those not subject to media coverage. This is consistent with the idea of traditional media providing reliable and timely signals to investors thereby mitigating information asymmetry in financial markets. Interestingly, the specialist financial newspaper media does not appear to have a distinctive impact, with our results indicating only minor differences between coverage by the FT and that of the more mainstream publications. Our findings therefore highlight the significance of signals conveyed by the newspaper media in the M&A context with respect to the behaviour of the stock markets, particularly in those such as the UK where insiders' transactions are stringently controlled.

Our study is not without limitations. Even though we consider a broader range of newspapers than previous studies, our results are still based on a limited number of media outlets. While we explore three broadsheet newspapers and one tabloid newspaper, it may be the case that other newspapers, or different types of newspapers (e.g. broadsheet *versus* tabloid newspapers) and periodicals have a more significant impact on trading activity. Similarly, our measure of media coverage is based on mentions of the name of the target or the acquirer, together with specific keywords typically associated with mergers and acquisitions. Other publications attributes may be worthy of study. For example, it may be the case that articles that are longer, with different sentiment, or published within specific sections of the newspaper trigger a different market response. Future studies may delve more into these characteristics of media coverage. Also, notwithstanding the increasing online presence of newspapers, our study does not consider the impact of real-time and alternative online media forums, nor does it account for the precise contents of the articles. Given that information reported in newspapers may be as much as 24 hours old, future research may further examine if timelier online news media vehicles have a more pronounced impact on trading activity and stock liquidity. Accordingly, future research may explore the actual content of the articles to examine if certain types of news reports have a stronger impact on stock market behaviour around announcements than others. It may also investigate whether news circulated through social media or online forums, including those on the so-called Clearnet and the Dark Web, have any impact on trading activity. An understanding of the characteristics of influential individuals and non-traditional media platforms may make a valuable addition to the literature in this area. Finally, it may be the case that different types of investors (e.g. retail *versus* institutional investors) react differently to media coverage and therefore that the effect on trading is driven by investors with a specific profile. Unfortunately, our data does not provide information about the investors behind each trade but future research may explore this further.

References

- Admati, A.R. and Pfleiderer, P. 1988. A theory of intraday patterns: Volume and price variability. *The Review of Financial Studies* 1(1): 3-40.
- Ali Shah, S. Z., and Akbar, S. 2008. Value relevance of advertising expenditure: A review of the literature. *International Journal of Management Reviews* 10(4): 301-325.
- Arouri, M., Gomes, M. and Pukthuanthong, K. 2019. Corporate social responsibility and M&A uncertainty. *Journal of Corporate Finance* 56: 176-198.
- Aspris, A., Foley, S. and Frino, A. 2014. Does insider trading explain price run-up ahead of takeover announcements? *Accounting and Finance* 54(1): 25-45.
- Barber, B.M. and Odean, T. 2007. All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors. *The Review of Financial Studies* 21(2): 785-818.
- Barbopoulos, L. and Sudarsanam, S. 2012. Determinants of earnout as acquisition payment currency and bidder's value gains, *Journal of Banking and Finance* 36: 678-694.
- Betton, S., Davis, F. and Walker, T. 2018. Rumor rationales: The impact of message justification on article credibility. *International Review of Financial Analysis* 58: 271-287.
- Borden, M.J. 2007. Role of financial journalists in corporate governance. *Fordham Journal of Corporate and Financial Law* 12(2): 311-369.
- Borges, M.R. and Gairifo, R. 2013. Abnormal returns before acquisition announcements: evidence from Europe. *Applied Economics* 45(26): 3723-3732.
- Chae, J. 2005. Trading Volume, Information Asymmetry, and Timing Information. *The Journal of Finance* 60(1): 413-442.
- Chakravarty, S. and McConnell, J.J. 1997. An analysis of prices, bid/ask spreads, and bid and ask depths surrounding Ivan Boesky's illegal trading in Carnation's stock. *Financial Management* 26(2): 18-34.
- Chordia, T., Roll, R. and Subrahmanyam, A. 2001. Market liquidity and trading activity. *The Journal of Finance* 56(2): 501-530.
- Chordia, T., Roll, R. and Subrahmanyam, A. 2008. Liquidity and market efficiency. *Journal of Financial Economics* 87(2): 249-268.
- Copeland, T.E. and Galai, D. 1983. Information effects on the bid-ask spread. *The Journal of Finance* 38(5): 1457-1469.
- Croci, E., Petmezas, D. and Travlos, N. 2012. Asymmetric information and target firm returns. *European Journal of Finance* 18(7): 639-661.
- Da, Z., Engelberg, J. and Gao, P. 2011. In search of attention. *Journal of Finance* 66(5): 1461-1499.
- Ding, R. and Hou, W. 2015. Retail investor attention and stock liquidity. *Journal of International Financial Markets, Institutions and Money* 37: 12-26.
- Draper, P. and Paudyal, K. 1999. Corporate takeovers: Mode of payment, returns and trading activity. *Journal of Business Finance and Accounting* 26: 521-558.
- Dutordoir, M., Vagenas-Nanos, E., Verwijmeren, P. and Wu, B. H.T. 2018. A Run-Down of Merger Target Run-Ups. Available at SSRN: <https://ssrn.com/abstract=3080171>.
- Easley, D. and O'Hara, M. 1987. Price, trade size, and information in securities markets. *Journal of Financial Economics* 19(1): 69-90.
- Edelman 2019. The Edelman trust barometer [Online]. Available from: <https://www.edelman.com/trust-barometer> [Accessed 28 April 2019].

- Eppler, M. J., and Wittig, D. 2000. Conceptualizing Information Quality: A Review of Information Quality Frameworks from the Last Ten Years. *Proceedings of the 2000 Conference on Information Quality*.
- Faccio, M. and Masulis, R.W. 2005. The choice of payment method in European mergers and acquisitions. *Journal of Finance* 60(3): 1345-1388.
- Fang, L., and Peress, J. 2009. Media Coverage and the Cross Section of Stock Returns. *Journal of Finance* 64 (5): 2023–2052.
- Fishman, M. 1989. Preemptive bidding and the role of the medium of exchange in acquisitions. *Journal of Finance* 44: 41-57.
- Fishman, M.J. and Hagerty, K.M. 1992. Insider trading and the efficiency of stock prices. *The RAND Journal of Economics* 23(1): 106-122.
- French, K.R. and Roll, R. 1986. Stock return variances: The arrival of information and the reaction of traders. *Journal of Financial Economics* 17(1): 5-26.
- Gao, Y. and Oler, D. 2012. Rumors and pre-announcement trading: why sell target stocks before acquisition announcements?. *Review of Quantitative Finance and Accounting* 39(4): 485-508.
- Glosten, L.R. and Milgrom, P.R. 1985. Bid, ask and transaction prices in a specialist market with heterogeneously informed traders. *Journal of Financial Economics* 14(1): 71-100.
- Griffin, J.M., Hirschey, N.H. and Kelly, P.J. 2011. How important is the financial media in global markets? *Review of Financial Studies* 25(7): 2155-2188.
- Hansen, R. 1987. A theory for the choice of exchange medium in the market for corporate control. *Journal of Business* 60: 75-95.
- Hegde, S.P. and McDermott, J.B. 2003. The liquidity effects of revisions to the S&P 500 index: An empirical analysis. *Journal of Financial Markets* 6: 413-459.
- Holland, K.M and Hodgkinson, L. 1994. The pre-announcement share price behaviour of UK takeover targets. *Journal of Business, Finance and Accounting* 21(4): 467-490.
- Huddart, S. J., and Ke, B. 2007. Information asymmetry and cross-sectional variation in insider trading. *Contemporary Accounting Research* 24(1): 195-232.
- Jabbour, A.R., Jalilvand, A. and Switzer, J.A. 2000. Pre-bid price run-ups and insider trading activity: Evidence from Canadian acquisitions. *International Review of Financial Analysis* 9(1): 21-43.
- Jarrell, G. and Poulsen, A. 1989. Stock trading before the announcement of tender offers: insider trading or market anticipation? *Journal of Law, Economics and Organisation* 5(2): 225-248.
- Jensen, M.C. and Ruback, R. 1983. The market for corporate control: the scientific evidence. *Journal of Financial Economics* 11(1-4): 5-50.
- Keown, A.J. and Pinkerton J.M. 1981. Merger announcements and insider trading activity: An empirical investigation. *Journal of Finance* 36(4): 855-869.
- Kim, O. and Verrecchia, R.E. 1994. Market liquidity and volume around earnings announcements. *Journal of Accounting and Economics* 17(1-2): 41-67.
- King, M.R. 2009. Prebid Run-Ups Ahead of Canadian Takeovers: How Big Is the Problem?. *Financial Management* 38(4): 699-726.
- Knight, S. A., and Burn, J. 2005. Developing a framework for assessing information quality on the World Wide Web. *Informing Science* 8 (5): 159-172.
- Kothari, S.P., Li, X. and Short, J.E. 2009. The effect of disclosures by management, analysts and business press on cost of capital, return volatility and analyst forecasts: a study using content analysis. *The Accounting Review* 84(5): 1639-1670.

- Krinsky, I. and Lee, J. 1996. Earnings announcements and the components of the bid-ask spread. *The Journal of Finance* 51(4): 1523-1535.
- Kryzanowski, L. and Lazrak, S. 2007. Trading activity, trade costs and informed trading for acquisition targets and acquirers. *European Journal of Finance* 13(5): 405-439.
- Kyle, A.S., 1985. Continuous auctions and insider trading. *Econometrica: Journal of the Econometric Society* 53(6): 1315-1335.
- Lee, C.M., Mucklow, B. and Ready, M.J. 1993. Spreads, depths, and the impact of earnings information: An intraday analysis. *The Review of Financial Studies* 6(2): 345-374.
- Lipson, M.L. and Mortal, S. 2007. Liquidity and firm characteristics: Evidence from mergers and acquisitions. *Journal of Financial Markets* 10(4): 342-361.
- Mitchell, M.L. and Mulherin, J.H. 1996. The impact of industry shocks on takeover and restructuring activity. *Journal of Financial Economics* 41(2): 193-229.
- Muelbroek L.K. 1992. An empirical analysis of illegal insider trading, *The Journal of Finance* 7: 1661-1701.
- Monaco, E. Ibikunle, G., and Palumbo, R. 2018. Trading Activity and Liquidity Effects Around Private Firm Acquisition Announcements: The Case of Earnouts Versus Other Methods of Payment. Available at SSRN: <https://ssrn.com/abstract=3103432>.
- Myers, S. C. and Majluf, N.S. 1984. Corporate Financing Decisions When Firms Have Investment Information That Investors Do Not. *Journal of Financial Economics* 13: 187-220.
- Newman, N. 2011. Mainstream media and the distribution of news in the age of social media. RISJ Reports. Reuters Institute for the Study of Journalism, Department of Politics and International Relations, University of Oxford.
- Newman N., Fletcher R., Kalogeropoulos A., Levy D. and Nielsen R.K., Reuters Institute Digital News Report 2017. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3026082 [Accessed 27 April 2019].
- Newman N., Fletcher R., Kalogeropoulos A., and Nielsen R.K. 2019. Reuters Institute Digital News Report 2019. Available from: https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2019-06/DNR_2019_FINAL_1.pdf [Accessed 26 June 2019].
- Peress, J., 2014. The media and the diffusion of information in financial markets: Evidence from newspaper strikes. *The Journal of Finance* 69(5): 2007-2043.
- Pew Research Centre 2010. Understanding the participatory news consumer: how internet and cell phones have turned news into a social experience. Available from: http://www.journalism.org/files/legacy/Participatory_News_Consumer.pdf [Accessed 27 February 2017].
- Pew Research Centre 2012. The search for a new business model: an in-depth look at how newspapers are faring trying to build digital revenue. Available from: <http://www.journalism.org/files/legacy/SEARCHFORNEWREVENUEMODEL.pdf> [Accessed 27 February 2017].
- Publishers Audience Measurement Company (PAMCo) 2020. PAMCo 3 2020 Apr'19 – Mar'20. Available at: <https://pamco.co.uk/pamco-data/data-archive/> [Accessed 7 July 2020].
- Reuters Institute 2014. Digital news report 2014 [Online]. Available from: <https://reutersinstitute.politics.ox.ac.uk/sites/default/files/Reuters%20Institute%20Digital%20News%20Report%202014.pdf> [Accessed 27 February 2017].
- Siganos, A. and Papa M. 2015. FT coverage and UK target price run-ups. *The European Journal of Finance* 21(12): 1070-1089.

- Strauß, N., 2019. Financial journalism in today's high-frequency news and information era. *Journalism* 20(2): 274-291.
- Tang, Z. and Xu, X. 2016. What Causes the Target Stock Price Run-Up Prior to M&A Announcements? *Journal of Accounting and Finance* 16(6): 106-120.
- Tetlock, P.C. 2007. Giving content to investor sentiment: the role of media in the stock market. *Journal of Finance* 62(3): 1139-1168.
- Tetlock, P.C. 2011. All the news that's fit to reprint: do investors react to stale information? *Review of Financial Studies* 24(5): 1481-1512.
- Trimbath, S., Frydman, H. and Frydman, R. 2001. Cost inefficiency, size of firms and takeovers. *Review of Quantitative Finance and Accounting* 17(4): 397-420.
- White, H. (1980). A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica: Journal of the Econometric Society* 48(4): 817-838.
- Yu, Y., Duan, W. and Cao, Q. 2013. The impact of social and conventional media on firm equity value: A sentiment analysis approach. *Decision Support Systems* 55(4): 919-926.

Table 1. Sample selection

Filters	Number of deals
Successful acquisition deals announced by target firms listed on London Stock Exchange and included in the ThomsonOne database from 01/01/1986 to 15/04/2014.	2,043
The acquirer is listed on the London Stock Exchange	1,746
Only acquisitions of at least 50% of target equity are included in the sample.	1,143
Both target and acquirer report a market value of at least \$1 million four weeks prior to the announcement of the bid.	542
Firms with historical data available on Thomson Reuters Tick History (TRTH) database for a period commencing 250 days before and 10 trading days after the acquisition announcement date. Data available on TRTH from 1/01/1996.	350

Table 2. Distribution of target firms over time and across industries																				
Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Tot.
Consumer Products and Services	4	5	3	5	4	1	1	2	2	5	5	2		2	1		1	2		45
Consumer Staples	2	3	5	7	3			1	3	4	2									30
Energy and Power																1		1		2
Financials																1		2		3
Healthcare	2			2		2		2		1	3	3	1	1	3	2			1	23
High Technology	2	2	3	5	5	2	2	2	5	5	3	4	2	1	2	1	2	1		49
Industrials	2	3	12	10	7	4	2	1	6	2	1	3	2		2	1	1	1		60
Materials		5	4	7	1	1		1				2		3	1		1			26
Media and Entertainment	4	5	3	9	9	1	3	1	3	3				1		2	1		1	46
Real Estate	1	4	6	6	2		1			1	1	2		2			1			27
Retail	2		3	8	4	2	2	2		2	1			1						27
Telecommunications		1						2	1	1	3	1		1	2					12
Total	19	28	39	59	35	13	11	14	20	24	19	17	5	12	11	8	7	7	2	350

This table reports the frequency distribution of acquisition announcements included in our sample by year and industry.

Table 3. Media coverage overview

<i>Panel A: Sample with and without coverage</i>	N
Full Sample	350
No Media Coverage	157
With Media Coverage	193
<i>Panel B: Firms' coverage with articles pre-event (-30. -1)</i>	
1 article	45
2 articles	26
3 articles	28
4 articles	14
5 articles	16
6 articles	15
7 articles	10
8 articles	6
9 articles	4
10 plus articles	29
Total articles	1,117
<i>Panel C: Number of articles pre-event (-30. -1) by source</i>	
FT	490
The Times	385
The Guardian	202
Daily Mirror	40
Total	1,117

This table reports the number of deals in each subsample and the frequency distribution of acquisition announcements by different levels of media coverage.

Table 4. Descriptive statistics

			Size of firms						Analysts' and Media Coverage	
	No. of Deals		Acquirer Market Value (£ bn)	Acquirer Market-to-Book Ratio	Target Market Value (£ bn)	Target Market-to-Book Ratio	Deal value (£ bn)	Relative size	No. Analysts	No. Articles
Full Sample	350	Mean	3,891.63	3.09	710.35	2.32	549.10	0.69	3.60	3.20
		Median	376.08	1.41	72.52	0.70	85.15	0.31	1.00	1.00
		S.D.	14,968.78	4.55	4,368.19	12.62	2,336.51	1.58	5.34	5.76
No Media Sample	157	Mean	4,049.98	2.81	522.17	1.41	456.82	0.50	2.62	0.00
		Median	236.73	1.29	40.89	0.61	46.94	0.18	1.00	0.00
		S.D.	13,295.83	5.03	4,138.93	3.29	3,041.25	1.04	4.13	0.00
Media Sample	193	Mean	3,695.91	3.31	851.21	3.01	623.69	0.92	4.39	5.79
		Median	591.85	1.66	142.00	0.73	190.65	0.46	2.00	3.00
		S.D.	16,904.36	4.12	4,538.86	16.40	1,554.22	2.05	6.04	6.72

This table presents some descriptive statistics of the deals included in our full sample as well as the ones included in the subsamples of deals covered or not covered by the media.

Table 5. Changes in trading activity and liquidity around acquisition with and without coverage

Panel A: No Media												
	<i>Average Daily Volume</i> <i>(No. of Shares)</i>		%	<i>No. of</i> <i>Trades</i>		%	<i>Quoted</i> <i>Spread</i>	%	<i>Percentage</i> <i>Spread</i>	%	<i>Price</i> <i>Volatility</i>	%
pre-Announcement	355,947			131.30			7.6767		1.9933		0.0206	
post-Announcement	577,506			50.57			7.8961		1.9806		0.0129	
<i>Difference</i>	221,559	**	62.24	-80.73	***	-61.49	0.219	2.86	-0.0127	-0.64	-0.0077	***
<i>t-stat.</i>	2.23			-2.68			0.18		-0.11		-3.49	
Panel B: Media												
	<i>Average Daily Volume</i> <i>(No. of Shares)</i>		%	<i>No. of</i> <i>Trades</i>		%	<i>Quoted</i> <i>Spread</i>	%	<i>Percentage</i> <i>Spread</i>	%	<i>Price</i> <i>Volatility</i>	%
pre-Announcement	427,409			39.45			4.8046		1.8621		0.0233	
post-Announcement	874,364			55.07			4.7277		1.6539		0.0142	
<i>Difference</i>	446,955	***	104.57	15.61	***	39.58	-0.0769	-1.60	-0.2082	***	-0.0091	***
<i>t-stat.</i>	4.26			2.62			-0.31		-3.22		-7.5	

This table presents the results of the t-tests on the difference in average value of the daily volume, number of trades, quoted and percentage spread, and price volatility pre- and post-announcement across the two subsamples of deals with and without media coverage. *, **, *** denote significance at the 10%, 5% and 1% levels of statistical significance respectively.

Table 6. Changes in trading activity and liquidity around acquisition with single or multiple coverage

Panel A: Single coverage											
	<i>Average Daily Volume (No. of Shares)</i>	%	<i>No. of Trades</i>	%	<i>Quoted Spread</i>	%	<i>Percentage Spread</i>	%	<i>Price Volatility</i>	%	
pre-Announcement	309,435		23.32		4.3264		1.9641		0.0209		
post-Announcement	407,741		32.94		4.5392		1.8567		0.0104		
<i>Difference</i>	98,306	31.77	9.62	41.24	0.2128	4.92	-0.1074	-5.47	-0.0105	***	-50.24
<i>t-stat.</i>	1		1.23		0.64		-0.76		-4.32		
Panel B: Multi coverage											
	<i>Average Daily Volume (No. of Shares)</i>	%	<i>No. of Trades</i>	%	<i>Quoted Spread</i>	%	<i>Percentage Spread</i>	%	<i>Price Volatility</i>	%	
pre-Announcement	460,001		43.89		4.9384		1.8336		0.0239		
post-Announcement	1,032,130		62.49		4.7922		1.5845		0.0155		
<i>Difference</i>	572,129	***	124.38	18.60	**	42.37	-0.1462	-2.96	-0.2491	***	-13.59
<i>t-stat.</i>	4.21		2.5		-0.47		-3.44		-6.03		

This table presents the results of the t-tests on the difference in average value of the daily volume, number of trades, quoted and percentage spread, and price volatility pre- and post-announcement across the two subsamples of deals covered by one or more newspapers. *, **, *** denote significance at the 10%, 5% and 1% levels of statistical significance respectively.

Table 7. Changes in trading volume around acquisition announcements

	Full Sample	No Media	Media
LnTargetSize	0.601*** (0.023)	0.281** (0.132)	0.344*** (0.035)
LnRelSize	-0.296*** (0.020)	-0.489*** (0.051)	0.176*** (0.046)
Dummy Diversifying	0.407*** (0.090)	-0.580 (0.398)	0.939*** (0.112)
Dummy Stock	1.420*** (0.048)	1.725*** (0.282)	0.878*** (0.082)
LnAnalystCoverage	0.454*** (0.036)	0.993*** (0.249)	0.659*** (0.038)
Quoted Spread	-0.082*** (0.005)	-0.028*** (0.006)	-0.180*** (0.009)
Volatility	0.084*** (0.015)	0.039*** (0.009)	0.225*** (0.019)
Price Return	1.379*** (0.472)	1.166** (0.491)	2.285*** (0.555)
Linear drift	-0.000 (0.000)	0.001 (0.000)	-0.000 (0.000)
-10	0.014 (0.242)	-0.106 (0.319)	0.064 (0.313)
-9	0.328 (0.233)	-0.237 (0.274)	0.475 (0.298)
-8	0.489** (0.211)	-0.207 (0.297)	0.744*** (0.218)
-7	0.187 (0.206)	-0.169 (0.357)	0.423* (0.223)
-6	0.208 (0.246)	-0.502 (0.477)	0.541** (0.272)
-5	0.313 (0.234)	0.028 (0.347)	0.363 (0.294)
-4	0.489** (0.203)	0.160 (0.360)	0.592** (0.263)
-3	0.469* (0.274)	0.542* (0.299)	0.446 (0.354)
-2	0.329 (0.248)	0.259 (0.218)	0.346 (0.341)
-1	0.601*** (0.228)	0.814*** (0.300)	0.350 (0.308)
0	2.156*** (0.304)	1.366*** (0.493)	2.160*** (0.391)
1	1.754*** (0.283)	1.701*** (0.426)	1.771*** (0.332)

Continued on next page

**Table 7. Changes in trading volume around acquisition announcements
(continued from previous page)**

2	1.348*** (0.258)	1.762*** (0.322)	1.112*** (0.322)
3	1.448*** (0.242)	1.731*** (0.423)	1.279*** (0.244)
4	1.041*** (0.237)	0.912** (0.385)	1.181*** (0.302)
5	0.804*** (0.246)	0.995*** (0.376)	0.737** (0.289)
6	0.759** (0.314)	0.649 (0.498)	0.857*** (0.333)
7	1.187*** (0.304)	1.197* (0.642)	1.004*** (0.286)
8	1.111*** (0.285)	0.473 (0.502)	1.264*** (0.331)
9	0.909*** (0.237)	0.539* (0.313)	0.943*** (0.308)
10	0.724*** (0.279)	0.501 (0.449)	0.675** (0.296)
Constant	4.662*** (0.280)	2.494*** (0.604)	6.459*** (0.443)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Number of observations	10,733	3,490	7,243
Number of deals	350	157	193
Adjusted R-squared	0.487	0.563	0.515

This table presents the results of the regression analysis for the model presented in Equation (1). The dependent variable is the natural logarithm of daily trading volume for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Table 8. Changes in number of trades around acquisition announcements

	Full Sample	No Media	Media
LnTargetSize	0.542*** (0.018)	0.572*** (0.108)	0.263*** (0.025)
LnRelSize	-0.190*** (0.015)	-0.532*** (0.044)	0.251*** (0.036)
Dummy Diversifying	0.463*** (0.060)	-0.283 (0.376)	1.014*** (0.067)
Dummy Stock	1.018*** (0.034)	0.801*** (0.243)	0.925*** (0.057)
LnAnalystCoverage	0.478*** (0.024)	0.274 (0.187)	0.631*** (0.023)
Quoted Spread	-0.066*** (0.004)	-0.033*** (0.004)	-0.140*** (0.006)
Volatility	0.099*** (0.016)	0.044*** (0.007)	0.249*** (0.019)
Price Return	0.174 (0.435)	0.371 (0.411)	0.700* (0.424)
Linear drift	-0.000* (0.000)	0.000 (0.000)	-0.000 (0.000)
-10	0.132 (0.165)	0.029 (0.184)	0.126 (0.207)
-9	0.234 (0.167)	-0.089 (0.228)	0.223 (0.198)
-8	0.300* (0.165)	0.073 (0.149)	0.419** (0.200)
-7	0.256* (0.147)	-0.065 (0.257)	0.454*** (0.169)
-6	0.023 (0.154)	-0.261 (0.247)	0.188 (0.193)
-5	0.149 (0.153)	0.137 (0.263)	0.067 (0.177)
-4	0.132 (0.135)	-0.134 (0.149)	0.181 (0.188)
-3	0.268* (0.146)	0.157 (0.198)	0.298* (0.171)
-2	0.273* (0.149)	0.149 (0.170)	0.334* (0.189)
-1	0.157 (0.172)	0.370 (0.273)	-0.041 (0.262)
0	1.018*** (0.215)	0.863*** (0.317)	0.833*** (0.323)
1	0.796*** (0.187)	0.769*** (0.253)	0.880*** (0.192)

Continued on next page

**Table 8. Changes in number of trades around acquisition announcements
(continued from previous page)**

2	0.549*** (0.177)	0.723*** (0.233)	0.492** (0.206)
3	0.592*** (0.164)	0.539** (0.209)	0.566*** (0.193)
4	0.392** (0.161)	0.091 (0.208)	0.531*** (0.202)
5	0.433** (0.194)	0.488** (0.233)	0.406* (0.245)
6	0.406** (0.163)	0.110 (0.222)	0.617*** (0.171)
7	0.477*** (0.183)	0.384 (0.290)	0.458** (0.188)
8	0.424** (0.167)	-0.024 (0.250)	0.538*** (0.200)
9	0.469*** (0.160)	0.117 (0.232)	0.511** (0.199)
10	0.301 (0.209)	-0.075 (0.246)	0.398 (0.254)
Constant	-3.400*** (0.127)	-4.073*** (0.517)	-2.196*** (0.192)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Number of observations	10,722	3,486	7,236
Number of deals	350	157	193
Adjusted R-squared	0.648	0.773	0.683

This table presents the results of the regression analysis for the model presented in Equation (1). The dependent variable is the daily number of trades for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Table 9. Changes in quoted bid-ask spread around acquisition announcements

	Full Sample	No Media	Media
LnTargetSize	-0.156* (0.089)	9.489*** (1.064)	-1.387*** (0.070)
LnRelSize	-0.462*** (0.059)	0.957*** (0.271)	0.341*** (0.084)
Dummy Diversifying	1.490*** (0.426)	2.879 (3.145)	0.992*** (0.238)
Dummy Stock	-0.825*** (0.186)	6.219*** (2.122)	-0.171 (0.127)
Ln Analysts Coverage	1.475*** (0.109)	-7.151*** (2.163)	0.546*** (0.074)
Ln Volume Residual	0.003 (0.004)	0.064*** (0.012)	0.025*** (0.003)
Volatility	0.765*** (0.084)	0.366*** (0.053)	0.327*** (0.033)
Price Return	-4.794** (2.301)	-5.223** (2.523)	-0.484 (0.984)
Linear drift	0.000 (0.001)	0.006*** (0.001)	-0.003*** (0.000)
-10	2.042 (1.731)	3.047 (3.372)	0.733 (0.722)
-9	1.352 (1.510)	3.832 (2.969)	-0.041 (0.493)
-8	-0.718 (0.616)	-1.506* (0.813)	-0.027 (0.461)
-7	-0.873 (0.698)	-2.205 (1.386)	0.316 (0.559)
-6	-0.671 (0.572)	-2.223 (1.432)	0.143 (0.539)
-5	1.082 (1.484)	2.145 (3.368)	0.485 (0.587)
-4	0.292 (1.021)	0.925 (1.951)	0.175 (0.453)
-3	0.771 (1.229)	1.099 (2.342)	0.487 (0.616)
-2	1.146 (0.948)	2.243 (1.390)	0.023 (0.526)
-1	-0.479 (1.087)	1.440 (1.926)	-0.290 (0.468)
0	-3.564*** (1.166)	-0.865 (1.905)	-1.208*** (0.467)
1	-0.570 (1.185)	1.797 (2.678)	-0.597* (0.359)

Continued on next page

**Table 9. Changes in quoted bid-ask spread around acquisition announcements
(continued from previous page)**

2	0.163 (1.183)	1.246 (3.427)	-0.622* (0.355)
3	0.694 (1.211)	3.156 (3.611)	-0.058 (0.371)
4	-0.818 (0.810)	-0.466 (1.474)	-0.144 (0.390)
5	0.375 (1.045)	1.476 (2.275)	-0.220 (0.424)
6	1.909 (1.720)	2.964 (4.117)	0.590 (0.497)
7	2.671 (2.146)	6.926 (5.120)	0.540 (0.493)
8	1.932 (1.556)	3.734 (3.620)	0.228 (0.471)
9	2.273 (2.126)	5.696 (4.788)	-0.119 (0.426)
10	1.715 (1.787)	5.529 (4.474)	-0.309 (0.472)
Constant	-0.725 (0.576)	-11.906** (4.962)	7.343*** (0.337)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Number of observations	10,704	3,465	7,239
Number of deals	350	157	193
Adjusted R-squared	0.529	0.790	0.414

This table presents the results of the regression analysis for the model presented in Equation (2). The dependent variable is the daily average quoted bid-ask spread for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Table 10. Changes in percentage bid-ask spread around acquisition announcements

	Full Sample	No Media	Media
LnTargetSize	-0.266*** (0.016)	0.285* (0.151)	-0.350*** (0.027)
LnRelSize	-0.056*** (0.015)	0.158*** (0.051)	0.052 (0.034)
Dummy Diversifying	0.176*** (0.068)	0.389 (0.617)	0.283*** (0.074)
Dummy Stock	-0.175*** (0.031)	1.499*** (0.533)	-0.107** (0.053)
LnAnalystCoverage	-0.147*** (0.021)	-0.688** (0.345)	-0.159*** (0.024)
Ln Volume Residual	0.005*** (0.001)	-0.002 (0.003)	0.007*** (0.001)
Volatility	0.023*** (0.004)	0.001 (0.003)	0.009* (0.005)
Price Return	-0.116 (0.342)	-0.091 (0.442)	-0.251 (0.397)
Linear drift	0.001*** (0.000)	0.001*** (0.000)	0.000 (0.000)
-10	-0.037 (0.171)	-0.087 (0.262)	-0.044 (0.174)
-9	-0.040 (0.137)	0.317 (0.298)	-0.203* (0.118)
-8	-0.096 (0.142)	-0.231 (0.164)	-0.031 (0.133)
-7	-0.163 (0.107)	-0.245 (0.157)	-0.031 (0.122)
-6	-0.065 (0.097)	-0.167 (0.206)	0.098 (0.119)
-5	-0.045 (0.127)	0.095 (0.259)	-0.050 (0.123)
-4	-0.112 (0.136)	-0.146 (0.207)	-0.027 (0.167)
-3	0.016 (0.140)	0.052 (0.226)	-0.012 (0.164)
-2	0.021 (0.136)	0.062 (0.127)	-0.050 (0.154)
-1	-0.035 (0.135)	0.145 (0.196)	-0.052 (0.130)
0	-0.421*** (0.132)	-0.179 (0.271)	-0.344*** (0.109)
1	-0.119 (0.194)	0.264 (0.399)	-0.299** (0.136)

Continued on next page

Table 10. Changes in percentage bid-ask spread around acquisition announcements
(continued from previous page)

2	-0.266*	-0.386*	-0.305**
	(0.142)	(0.217)	(0.149)
3	-0.180	-0.034	-0.244**
	(0.120)	(0.279)	(0.106)
4	-0.382***	-0.162	-0.421***
	(0.138)	(0.364)	(0.115)
5	-0.242*	-0.072	-0.358***
	(0.140)	(0.364)	(0.111)
6	-0.161	-0.177	-0.184
	(0.133)	(0.225)	(0.131)
7	-0.176	-0.034	-0.244*
	(0.139)	(0.235)	(0.126)
8	-0.201	-0.135	-0.275**
	(0.133)	(0.263)	(0.110)
9	-0.182	0.184	-0.323***
	(0.164)	(0.329)	(0.123)
10	-0.301**	0.057	-0.417***
	(0.143)	(0.306)	(0.130)
Constant	3.973***	3.133***	4.034***
	(0.266)	(1.098)	(0.257)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Number of observations	10,704	3,465	7,239
Number of deals	350	157	193
Adjusted R-squared	0.428	0.666	0.429

This table presents the results of the regression analysis for the model presented in Equation (2). The dependent variable is the daily average percentage bid-ask spread for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Figure 1 – Average daily excess volume pre- and post-announcements

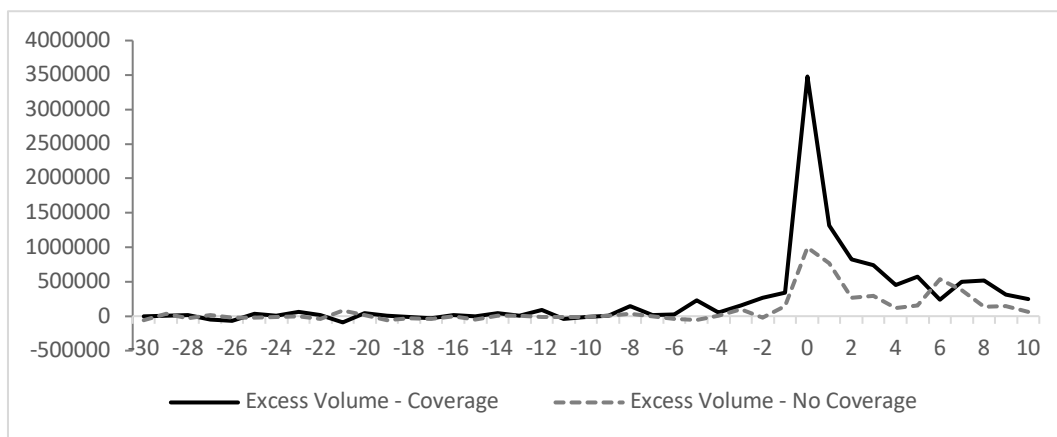


Figure 2 – Average daily excess number of trades pre- and post- acquisition announcements



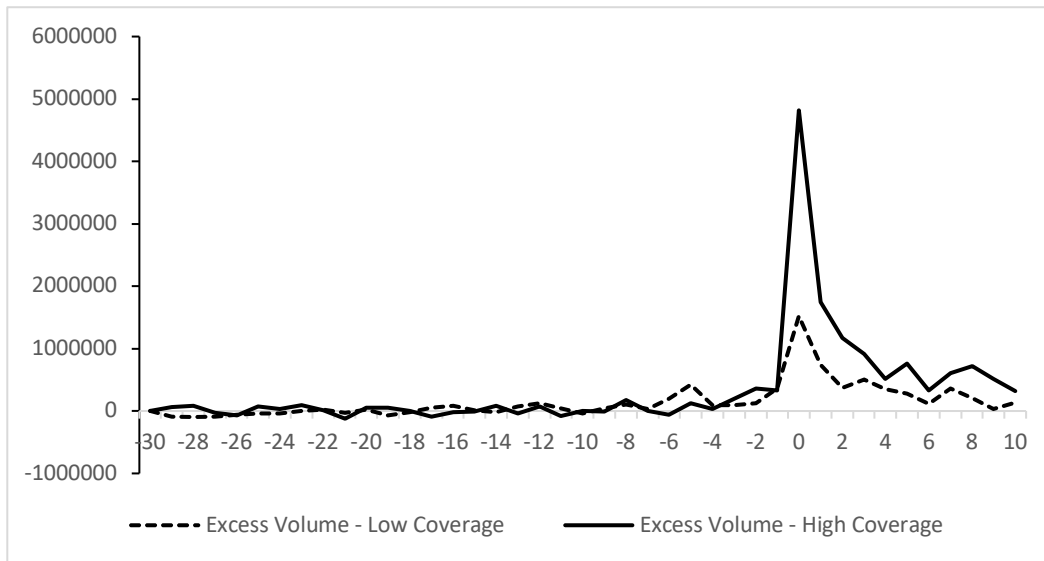
Appendix A

List of variables included in the study		
Variable	Source	Definition
LnVolume	TRTH	Natural logarithm of the daily number of shares traded each day.
Trades	TRTH	Natural logarithm of the daily number of trades
LnTargetSize	ThomsonOne	Natural logarithm of the market value of the target firm four weeks before the announcement.
LnRelSize	ThomsonOne	The natural logarithm of the ratio between the deal value and the market value of the acquirer four weeks before the announcement.
Dummy Diversifying	ThomsonOne	1 if the target and the acquirer have two different 2-digit SIC codes as their primary industry, 0 otherwise.
Dummy Stock	ThomsonOne	1 if the acquisition was entirely paid in shares, 0 otherwise.
LnAnalystCoverage	I/B/E/S	Natural logarithm of one plus the number of analysts following the company from 30 days before to 10 days after the announcement.
Quoted Spread	TRTH	The daily average difference between the best ask and best bid prices.
Volatility	TRTH	Daily standard deviation of the stock price.
Price Return	Compustat	
LnVolumeResidual		Natural logarithm of residuals of generated by regressing the natural logarithm of LnVolume on LnTargetSize, LnAnalystCoverage and the natural logarithm of the number of media articles.
SVI	GoogleTrends	Search volume index as provided by GoogleTrends
BooktoMarket	ThomsonOne	The ratio between the book and the market value of equity of a at the previous fiscal year end.

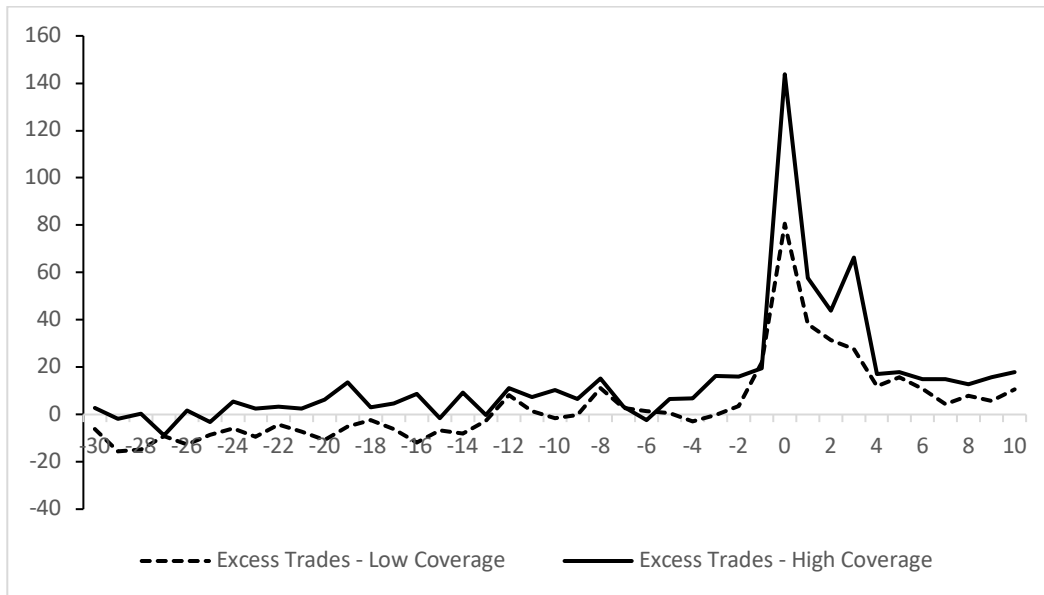
This table provides the definition of the variables included in the analysis and the respective data sources.

Appendix B

Appendix B1 – Average daily excess volume by coverage intensity pre- and post-announcements



Appendix B2 – Average daily excess number of trades by coverage intensity pre- and post-announcements



Appendix C

Changes in trading activity and liquidity around acquisition by newspaper's coverage

Panel A: FT													
	<i>Average Daily Volume (No. of Shares)</i>		%	<i>No. of Trades</i>		%	<i>Quoted Spread</i>		%	<i>Percentage Spread</i>		%	<i>Price Volatility</i>
pre-Announcement	411,049			41.55			4.8907			1.8617			0.0232
post-Announcement	901,272			59.52			4.8025			1.6245			0.0146
<i>Difference</i>	490,223	***	119.26	17.96	***	43.23	-0.0882	-1.80		-0.2372	***	-12.74	-0.0086
<i>t-stat.</i>	4.34			2.76			-0.33			-3.45			-6.85
Panel B: THE TIMES													
	<i>Average Daily Volume (No. of Shares)</i>		%	<i>No. of Trades</i>		%	<i>Quoted Spread</i>		%	<i>Percentage Spread</i>		%	<i>Price Volatility</i>
pre-Announcement	508,874			44.21			4.8899			1.7884			0.0247
post-Announcement	1,042,984			61.55			4.7123			1.5332			0.0152
<i>Difference</i>	534,110	***	104.96	17.34	**	39.22	-0.1776	-3.63		-0.2552	***	-14.27	-0.0095
<i>t-stat.</i>	3.98			2.39			-0.59			-3.8			-6.63
Panel C: THE GUARDIAN													
	<i>Average Daily Volume (No. of Shares)</i>		%	<i>No. of Trades</i>		%	<i>Quoted Spread</i>		%	<i>Percentage Spread</i>		%	<i>Price Volatility</i>
pre-Announcement	463,012			43.12			5.0547			1.8250			0.0245
post-Announcement	1,180,205			67.43			5.0428			1.5716			0.0163
<i>Difference</i>	717,193	***	154.90	24.31	**	56.39	-0.0119	-0.24		-0.2534	***	-13.88	-0.0082
<i>t-stat.</i>	4			2.49			-0.03			-2.94			-4.81
Panel D: DAILY MIRROR													
	<i>Average Daily Volume (No. of Shares)</i>		%	<i>No. of Trades</i>		%	<i>Quoted Spread</i>		%	<i>Percentage Spread</i>		%	<i>Price Volatility</i>
pre-Announcement	647,884			46.99			5.9285			1.6907			0.0297
post-Announcement	1,133,064			49.62			5.6848			1.4437			0.0171
<i>Difference</i>	485,180	**	74.89	2.63		5.60	-0.2437	-4.11		-0.2470	*	-14.61	-0.0126
<i>t-stat.</i>	2.23			0.31			-0.28			-1.85			-3.71

This table presents the results of the t-tests on the difference in average value of the daily volume, number of trades, quoted and percentage spread, and price volatility pre- and post-announcement by media outlet. *, **, *** denote significance at the 10%, 5% and 1% levels of statistical significance respectively.

Appendix D

Appendix D1. Changes in trading volume around acquisition announcements by media outlet

	FT	The Times	The Guardian	Daily Mirror
LnTargetSize	0.021 (0.090)	0.109 (0.088)	-0.349** (0.155)	-0.759 (0.878)
LnRelSize	0.125 (0.119)	-0.181 (0.133)	0.511* (0.277)	0.956 (2.306)
Dummy Diversifying	1.140*** (0.333)	1.148*** (0.360)	0.909 (1.168)	
Dummy Stock	1.196*** (0.221)	1.166*** (0.251)	0.346 (1.202)	-0.989 (2.117)
Ln Number of Articles	-0.041 (0.109)	0.189 (0.135)	0.533*** (0.200)	-1.392 (1.237)
Ln Analyst Coverage	0.672*** (0.110)	0.674*** (0.089)	0.889*** (0.178)	-0.121 (0.477)
Quoted Spread	-0.245*** (0.025)	-0.326*** (0.033)	-0.302*** (0.069)	-0.313*** (0.108)
Volatility	0.163*** (0.039)	0.184*** (0.040)	0.266*** (0.043)	0.311*** (0.088)
Price Return	3.525*** (1.266)	3.292*** (1.242)	2.563* (1.525)	1.399 (2.144)
Linear drift	0.004 (0.012)	-0.008 (0.013)	-0.018 (0.015)	-0.023 (0.024)
-10	-0.140 (0.347)	-0.081 (0.378)	0.039 (0.488)	-0.700 (0.662)
-9	0.439 (0.348)	0.307 (0.382)	0.863** (0.428)	1.602*** (0.517)
-8	0.659** (0.260)	0.728** (0.303)	1.152*** (0.341)	1.284** (0.648)
-7	0.190 (0.280)	0.473 (0.313)	0.564 (0.387)	1.022 (0.704)
-6	0.288 (0.321)	0.434 (0.330)	0.816* (0.417)	0.422 (0.767)
-5	0.146 (0.348)	0.708** (0.327)	0.353 (0.475)	1.232* (0.652)
-4	0.348 (0.308)	0.638* (0.344)	0.894** (0.435)	0.586 (0.562)
-3	0.187 (0.442)	0.348 (0.493)	0.899** (0.437)	1.018 (0.715)
-2	0.004 (0.402)	0.275 (0.446)	0.900** (0.436)	0.637 (0.658)
-1	0.207 (0.353)	0.454 (0.386)	0.733* (0.441)	0.812 (0.728)
0	2.043*** (0.450)	2.610*** (0.476)	3.195*** (0.451)	2.167*** (0.827)

Continued on next page

Appendix D1. Changes in trading volume around acquisition announcements by media outlet (continued from previous page)				
1	1.504*** (0.417)	1.772*** (0.439)	2.006*** (0.509)	1.275 (0.848)
2	0.811* (0.434)	1.195** (0.467)	1.256** (0.598)	1.496** (0.712)
3	1.010** (0.393)	1.461*** (0.407)	1.223** (0.503)	1.577** (0.676)
4	0.909** (0.420)	1.201*** (0.450)	1.274** (0.554)	0.788 (0.789)
5	0.420 (0.425)	0.664 (0.441)	1.073** (0.532)	0.839 (0.746)
6	0.563 (0.451)	0.963** (0.482)	1.403*** (0.532)	1.059 (0.889)
7	0.729 (0.460)	1.087** (0.474)	1.497** (0.650)	1.772* (0.936)
8	1.152** (0.472)	1.277** (0.499)	1.214** (0.609)	2.288** (1.014)
9	0.633 (0.473)	1.116** (0.480)	1.172** (0.553)	2.471*** (0.774)
10	0.269 (0.488)	0.755 (0.517)	0.778 (0.643)	1.371 (0.963)
Constant	8.081*** (0.842)	7.049*** (0.872)	8.140*** (1.240)	20.593** (10.333)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Number of observations	1,238	1,043	693	314
Number of deals	167	135	90	29
Adjusted R-squared	0.478	0.518	0.527	0.533

This table presents the results of the regression analysis for the model presented in Equation (1). The dependent variable is the natural logarithm of daily trading volume for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Appendix D2. Changes in number of trades around acquisition announcements by media outlet				
	FT	The Times	The Guardian	Daily Mirror
LnTargetSize	0.233*** (0.065)	0.355*** (0.060)	-0.079 (0.083)	-0.392 (0.350)
LnRelSize	0.105 (0.084)	-0.385*** (0.113)	0.064 (0.153)	0.293 (0.926)
Dummy Diversifying	0.217 (0.250)	0.514** (0.237)	-0.841 (0.648)	
Dummy Stock	0.723*** (0.155)	1.434*** (0.177)	0.152 (0.663)	-0.806 (0.877)
Ln Number of Articles	-0.350*** (0.071)	0.028 (0.080)	0.222*** (0.084)	-1.414*** (0.542)
Ln Analyst Coverage	0.734*** (0.071)	0.670*** (0.049)	0.844*** (0.082)	0.112 (0.167)
Quoted Spread	-0.189*** (0.016)	-0.207*** (0.019)	-0.090*** (0.026)	-0.161*** (0.031)
Volatility	0.175*** (0.037)	0.184*** (0.038)	0.191*** (0.025)	0.253*** (0.047)
Price Return	0.826 (0.956)	0.688 (0.842)	1.121 (0.955)	0.009 (1.463)
Linear drift	-0.002 (0.007)	-0.002 (0.007)	-0.007 (0.008)	-0.007 (0.011)
-10	0.055 (0.217)	0.047 (0.235)	0.068 (0.302)	-0.402 (0.343)
-9	0.341* (0.206)	0.277 (0.211)	0.678*** (0.232)	0.736** (0.315)
-8	0.457** (0.208)	0.314 (0.227)	0.498* (0.254)	0.712 (0.476)
-7	0.346* (0.203)	0.377* (0.214)	0.399 (0.248)	0.943** (0.379)
-6	0.096 (0.212)	0.002 (0.216)	0.287 (0.232)	0.135 (0.382)
-5	0.043 (0.205)	0.269 (0.192)	0.191 (0.223)	0.400 (0.374)
-4	0.089 (0.203)	0.209 (0.206)	0.259 (0.223)	0.275 (0.314)
-3	0.238 (0.217)	0.285 (0.208)	0.503** (0.219)	0.556 (0.413)
-2	0.250 (0.220)	0.253 (0.242)	0.580** (0.244)	0.323 (0.309)
-1	0.079 (0.249)	0.121 (0.249)	0.538** (0.222)	0.314 (0.370)
0	1.052*** (0.306)	1.326*** (0.273)	1.673*** (0.237)	1.255*** (0.364)

Continued on next page

Appendix D2. Changes in number of trades around acquisition announcements by media outlet
(continued from previous page)

1	0.792*** (0.229)	0.709*** (0.230)	0.951*** (0.237)	0.750** (0.329)
2	0.417 (0.256)	0.492** (0.231)	0.558* (0.286)	0.962*** (0.336)
3	0.561** (0.262)	0.595** (0.241)	0.470 (0.307)	0.715** (0.359)
4	0.452* (0.259)	0.401 (0.250)	0.475 (0.314)	0.235 (0.347)
5	0.330 (0.287)	0.314 (0.260)	0.437 (0.290)	0.400 (0.312)
6	0.562** (0.265)	0.608** (0.250)	0.804*** (0.274)	0.624 (0.381)
7	0.426 (0.280)	0.356 (0.283)	0.449 (0.317)	0.626* (0.346)
8	0.588** (0.277)	0.582** (0.263)	0.522* (0.313)	0.670* (0.377)
9	0.404 (0.287)	0.386 (0.274)	0.420 (0.306)	0.459 (0.424)
10	0.342 (0.343)	0.237 (0.323)	0.256 (0.380)	0.515 (0.466)
Constant	-1.888*** (0.445)	-2.991*** (0.441)	-1.630*** (0.588)	9.011** (4.296)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Number of observations	1,235	1,042	693	314
Number of deals	167	135	90	29
Adjusted R-squared	0.674	0.724	0.774	0.763

This table presents the results of the regression analysis for the model presented in Equation (1). The dependent variable is the natural logarithm of the daily number of trades for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Appendix D3. Changes in quoted spread around acquisition announcements by media outlet

	FT	The Times	The Guardian	Daily Mirror
LnTargetSize	-1.337*** (0.147)	-1.291*** (0.126)	-0.187 (0.127)	-2.087*** (0.324)
LnRelSize	1.309*** (0.195)	1.738*** (0.168)	0.071 (0.155)	4.965*** (0.864)
Dummy Diversifying	-1.254** (0.594)	0.429 (0.500)	1.328* (0.762)	
Dummy Stock	-1.171*** (0.287)	-2.375*** (0.294)	0.053 (0.685)	-5.745*** (0.775)
Ln Number of Articles	-1.723*** (0.163)	-1.349*** (0.133)	-1.307*** (0.128)	-2.696*** (0.469)
Ln Analyst Coverage	0.284 (0.185)	-0.087 (0.168)	-1.108*** (0.100)	0.281 (0.188)
Ln Volume Residual	-0.090 (0.073)	-0.111** (0.050)	-0.170*** (0.045)	-0.180*** (0.065)
Volatility	0.180*** (0.051)	0.158*** (0.052)	0.195*** (0.049)	0.314*** (0.121)
Price Return	-2.445* (1.346)	-0.205 (1.146)	-0.351 (0.879)	-2.259 (1.429)
Linear drift	-0.007 (0.019)	-0.002 (0.015)	-0.018 (0.014)	-0.026 (0.025)
-10	0.596 (0.702)	0.259 (0.465)	-0.042 (0.260)	0.283 (0.356)
-9	-0.102 (0.482)	0.053 (0.418)	-0.286 (0.275)	-0.099 (0.422)
-8	-0.056 (0.451)	-0.014 (0.421)	0.463 (0.390)	0.693 (0.531)
-7	0.132 (0.538)	-0.027 (0.397)	0.230 (0.343)	-0.017 (0.375)
-6	0.215 (0.527)	0.102 (0.396)	0.209 (0.295)	0.686 (0.487)
-5	0.355 (0.605)	0.576 (0.505)	0.366 (0.294)	0.516 (0.385)
-4	-0.048 (0.497)	0.267 (0.477)	-0.027 (0.285)	-0.036 (0.483)
-3	0.358 (0.623)	0.323 (0.576)	0.060 (0.299)	0.082 (0.433)
-2	0.125 (0.526)	0.071 (0.442)	-0.023 (0.302)	-0.393 (0.550)
-1	-0.124 (0.490)	-0.198 (0.437)	0.385 (0.314)	0.302 (0.519)
0	-0.680 (0.560)	-0.633 (0.521)	-0.275 (0.312)	-0.257 (0.527)

Continued on next page

Appendix D3. Changes in quoted spread around acquisition announcements by media outlet
(continued from previous page)

1	-0.555 (0.493)	-0.372 (0.458)	-0.272 (0.333)	-0.027 (0.670)
2	-0.567 (0.558)	-0.482 (0.445)	0.280 (0.353)	0.164 (0.598)
3	-0.185 (0.547)	0.122 (0.473)	0.324 (0.366)	0.292 (0.659)
4	-0.210 (0.568)	0.074 (0.480)	0.238 (0.354)	0.449 (0.635)
5	-0.005 (0.597)	-0.198 (0.490)	0.159 (0.410)	0.240 (0.708)
6	0.534 (0.688)	0.539 (0.642)	0.772* (0.441)	0.790 (0.704)
7	0.308 (0.711)	0.207 (0.704)	0.684 (0.484)	0.726 (0.712)
8	0.205 (0.694)	0.082 (0.679)	0.594 (0.446)	0.398 (0.803)
9	-0.134 (0.661)	-0.083 (0.594)	0.589 (0.482)	0.468 (0.811)
10	-0.037 (0.762)	-0.205 (0.696)	-0.076 (0.474)	0.207 (0.785)
Constant	10.447*** (0.786)	10.076*** (0.665)	5.804*** (0.620)	24.926*** (3.826)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Number of observations	1,238	1,043	693	314
Number of deals	167	135	90	29
Adjusted R-squared	0.432	0.491	0.598	0.570

This table presents the results of the regression analysis for the model presented in Equation (2). The dependent variable is the daily average quoted bid-ask spread for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Appendix D4. Changes in percentage spread around acquisition announcements by media outlet

	FT	The Times	The Guardian	Daily Mirror
LnTargetSize	-0.307*** (0.043)	-0.424*** (0.046)	0.000 (0.043)	-0.784*** (0.155)
LnRelSize	0.074 (0.070)	0.270*** (0.102)	-0.077 (0.074)	2.362*** (0.433)
Dummy diversifying	-0.014 (0.157)	0.751*** (0.181)	0.861*** (0.273)	
Dummy Stock	0.126 (0.106)	0.053 (0.141)	0.739*** (0.204)	-1.652*** (0.383)
Ln Number of Articles	-0.322*** (0.038)	-0.017 (0.043)	-0.532*** (0.049)	-1.084*** (0.218)
Ln Analyst Coverage	-0.390*** (0.051)	-0.183*** (0.044)	-0.659*** (0.042)	0.029 (0.098)
Ln Volume Residual	-0.038* (0.021)	-0.040* (0.021)	-0.077*** (0.021)	-0.066*** (0.022)
Volatility	0.010 (0.007)	-0.009 (0.010)	0.012 (0.009)	0.040** (0.015)
Price Return	-0.437 (0.417)	-0.091 (0.484)	-0.337 (0.333)	-0.449 (0.458)
Linear drift	-0.001 (0.005)	0.002 (0.005)	-0.005 (0.005)	-0.009 (0.006)
-10	0.032 (0.190)	-0.108 (0.136)	-0.179 (0.141)	0.105 (0.132)
-9	-0.242* (0.144)	-0.166 (0.136)	-0.226** (0.115)	0.117 (0.102)
-8	-0.031 (0.130)	0.045 (0.150)	0.088 (0.137)	0.334** (0.141)
-7	0.027 (0.128)	-0.068 (0.136)	0.064 (0.132)	0.120 (0.098)
-6	0.188 (0.133)	0.126 (0.152)	0.213 (0.137)	0.518** (0.233)
-5	0.008 (0.137)	0.014 (0.140)	0.015 (0.121)	0.238* (0.135)
-4	0.028 (0.187)	-0.084 (0.139)	-0.111 (0.122)	-0.042 (0.155)
-3	0.063 (0.176)	-0.104 (0.156)	-0.056 (0.133)	0.130 (0.177)
-2	-0.040 (0.153)	0.006 (0.202)	-0.195 (0.119)	-0.116 (0.176)
-1	-0.016 (0.149)	0.013 (0.162)	0.086 (0.157)	0.143 (0.157)
0	-0.321** (0.144)	-0.333** (0.157)	-0.290** (0.137)	-0.164 (0.158)

Continued on next page

Appendix D4. Changes in percentage spread around acquisition announcements by media outlet
(continued from previous page)

1	-0.283*	-0.233	-0.358**	-0.021
	(0.163)	(0.169)	(0.144)	(0.257)
2	-0.316*	-0.272	-0.175	0.028
	(0.168)	(0.189)	(0.153)	(0.153)
3	-0.200	-0.165	-0.124	0.118
	(0.155)	(0.168)	(0.171)	(0.156)
4	-0.339**	-0.318**	-0.192	0.117
	(0.160)	(0.162)	(0.163)	(0.157)
5	-0.282*	-0.328**	-0.149	0.121
	(0.169)	(0.162)	(0.178)	(0.192)
6	-0.091	-0.143	0.020	0.341
	(0.181)	(0.199)	(0.209)	(0.273)
7	-0.165	-0.252	0.035	0.207
	(0.184)	(0.194)	(0.172)	(0.199)
8	-0.213	-0.270	-0.072	0.155
	(0.172)	(0.194)	(0.174)	(0.206)
9	-0.241	-0.265	0.043	0.244
	(0.190)	(0.190)	(0.192)	(0.229)
10	-0.267	-0.366*	-0.224	0.027
	(0.204)	(0.211)	(0.197)	(0.200)
Constant	4.353***	4.035***	3.492***	10.264***
	(0.360)	(0.372)	(0.384)	(1.805)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Number of observations	1,238	1,043	693	314
Number of deals	167	135	90	29
Adjusted R-squared	0.588	0.523	0.675	0.674

This table presents the results of the regression analysis for the model presented in Equation (2). The dependent variable is the daily average percentage bid-ask spread for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Appendix E

Appendix E1. Robustness Test – Active Investor Attention – Trading Volume

	Full Sample	No Media	Media
LnTargetSize	0.394*** (0.025)	0.543** (0.222)	0.221*** (0.040)
LnRelSize	-0.147*** (0.024)	-0.273*** (0.085)	0.455*** (0.058)
Dummy Diversifying	1.000*** (0.119)	-0.891* (0.474)	1.431*** (0.153)
Dummy Stock	1.388*** (0.083)	2.179*** (0.428)	0.511*** (0.145)
Δ SVI	0.006* (0.004)	-0.049** (0.023)	0.020*** (0.006)
Ln Analyst Coverage	0.757*** (0.045)	0.797** (0.373)	1.011*** (0.053)
Quoted Spread	-0.137*** (0.012)	-0.078*** (0.017)	-0.144*** (0.016)
Volatility	0.181*** (0.014)	0.172*** (0.017)	0.205*** (0.023)
Price Return	0.962** (0.404)	0.448 (0.474)	1.923*** (0.729)
Linear drift	0.000 (0.000)	0.001*** (0.000)	0.000 (0.000)
-10	-0.138 (0.267)	-0.370** (0.179)	0.055 (0.419)
-9	0.058 (0.326)	-0.212 (0.359)	0.217 (0.501)
-8	0.393 (0.279)	-0.329 (0.355)	0.698** (0.348)
-7	0.290 (0.266)	-0.226 (0.382)	0.581* (0.332)
-6	0.309 (0.311)	-1.017** (0.443)	0.887*** (0.295)
-5	0.215 (0.294)	-0.355* (0.212)	0.505 (0.424)
-4	0.262 (0.240)	-0.345 (0.291)	0.597** (0.302)
-3	0.331 (0.261)	0.117 (0.352)	0.603* (0.335)
-2	0.384* (0.223)	0.309 (0.259)	0.367 (0.321)
-1	0.199 (0.298)	0.270 (0.336)	0.027 (0.456)
0	2.248*** (0.361)	1.441*** (0.524)	2.642*** (0.447)

Appendix E1. Robustness Test – Active Investor Attention – Trading Volume
(continued from previous page)

1	1.742*** (0.345)	2.023*** (0.497)	1.580*** (0.429)
2	1.047*** (0.350)	1.884*** (0.350)	0.722 (0.477)
3	1.417*** (0.250)	1.494*** (0.381)	1.428*** (0.309)
4	1.135*** (0.266)	0.907* (0.478)	1.486*** (0.336)
5	0.831*** (0.308)	1.062** (0.434)	0.865** (0.399)
6	0.851** (0.390)	0.850 (0.662)	0.956** (0.455)
7	1.626*** (0.279)	1.150* (0.651)	1.833*** (0.322)
8	1.472*** (0.330)	1.009* (0.568)	1.720*** (0.433)
9	0.871*** (0.285)	0.439 (0.363)	1.252*** (0.421)
10	0.677** (0.328)	0.263 (0.479)	0.993** (0.399)
Constant	5.240*** (0.317)	3.032*** (0.788)	6.250*** (0.476)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Number of observations	6,900	2,534	4,366
Number of deals	132	82	50
Adjusted R-squared	0.525	0.631	0.523

This table presents the results of the regression analysis for the model presented in Equation (1). The dependent variable is the natural logarithm of daily trading volume for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Appendix E2. Robustness Test – Active Investor Attention – Number of Trades

	Full Sample	No Media	Media
LnTargetSize	0.348*** (0.017)	0.819*** (0.180)	0.101*** (0.031)
LnRelSize	-0.045** (0.018)	-0.375*** (0.062)	0.625*** (0.048)
Dummy Diversifying	0.695*** (0.068)	-0.543 (0.386)	1.453*** (0.093)
Dummy Stock	0.963*** (0.055)	1.054*** (0.264)	0.337*** (0.097)
Δ SVI	-0.000 (0.003)	-0.046*** (0.017)	0.007 (0.004)
Ln Analyst Coverage	0.410*** (0.031)	0.248 (0.208)	0.560*** (0.037)
Quoted Spread	-0.112*** (0.007)	-0.096*** (0.007)	-0.113*** (0.010)
Volatility	0.229*** (0.015)	0.179*** (0.012)	0.219*** (0.023)
Price Return	-0.015 (0.347)	-0.080 (0.444)	0.562 (0.568)
Linear drift	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
-10	-0.032 (0.193)	-0.193 (0.185)	0.136 (0.305)
-9	0.067 (0.229)	-0.267 (0.286)	0.247 (0.342)
-8	0.193 (0.205)	-0.116 (0.197)	0.355 (0.305)
-7	0.371** (0.177)	-0.015 (0.258)	0.631** (0.256)
-6	0.149 (0.193)	-0.418 (0.274)	0.356 (0.229)
-5	0.135 (0.196)	-0.029 (0.274)	0.199 (0.273)
-4	0.073 (0.176)	-0.462*** (0.122)	0.380 (0.260)
-3	0.112 (0.156)	0.037 (0.256)	0.201 (0.206)
-2	0.330** (0.156)	0.231 (0.213)	0.315 (0.221)
-1	-0.383 (0.282)	-0.102 (0.380)	-0.426 (0.380)
0	0.857*** (0.304)	0.679* (0.388)	1.104*** (0.379)

Continued on next page

Appendix E2. Robustness Test – Active Investor Attention – Number of Trades
(continued from previous page)

1	0.902*** (0.194)	1.127*** (0.226)	0.848*** (0.267)
2	0.334 (0.222)	0.578** (0.252)	0.339 (0.285)
3	0.555*** (0.181)	0.424* (0.224)	0.607** (0.266)
4	0.446*** (0.165)	0.119 (0.212)	0.721*** (0.197)
5	0.391 (0.252)	0.566*** (0.194)	0.365 (0.369)
6	0.482*** (0.171)	0.268 (0.257)	0.632*** (0.212)
7	0.629*** (0.150)	0.286 (0.323)	0.806*** (0.191)
8	0.436** (0.189)	-0.007 (0.274)	0.626** (0.299)
9	0.422** (0.197)	0.010 (0.263)	0.707** (0.280)
10	0.163 (0.253)	-0.193 (0.294)	0.444 (0.307)
Constant	-2.088*** (0.150)	-3.863*** (0.562)	-1.335*** (0.227)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Number of observations	6,893	2,532	4,361
Number of deals	132	82	50
Adjusted R-squared	0.691	0.816	0.693

This table presents the results of the regression analysis for the model presented in Equation (1). The dependent variable is the natural logarithm of the daily number of trades for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Appendix E3. Robustness Test – Active Investor Attention – Quoted Spread

	Full Sample	No Media	Media
LnTargetSize	-0.954*** (0.042)	-0.922 (0.743)	-0.861*** (0.067)
LnRelSize	-0.180*** (0.024)	-0.742*** (0.239)	-0.679*** (0.062)
Dummy Diversifying	1.510*** (0.165)	-5.820** (2.443)	1.410*** (0.222)
Dummy Stock	-2.678*** (0.082)	2.402 (1.624)	-2.057*** (0.179)
Δ SVI	0.013** (0.006)	0.093** (0.046)	0.032*** (0.008)
Ln Analyst Coverage	-0.947*** (0.062)	-1.013 (1.023)	-0.727*** (0.079)
Ln Volume Residual	0.031*** (0.004)	-0.020*** (0.007)	0.033*** (0.006)
Volatility	0.160*** (0.019)	0.037 (0.033)	0.132*** (0.024)
Price Return	-0.184 (0.398)	-0.309 (0.431)	0.026 (0.598)
Linear drift	-0.004*** (0.000)	-0.003*** (0.001)	-0.004*** (0.000)
-10	0.212 (0.646)	-0.855 (0.794)	0.659 (0.924)
-9	-0.087 (0.389)	0.062 (0.758)	-0.275 (0.385)
-8	-0.240 (0.356)	-0.552 (0.617)	-0.147 (0.424)
-7	-0.219 (0.413)	-0.779 (0.671)	-0.115 (0.504)
-6	-0.348 (0.318)	-0.343 (0.317)	-0.384 (0.473)
-5	-0.261 (0.356)	-0.943 (0.868)	0.054 (0.288)
-4	-0.110 (0.486)	-0.223 (1.054)	0.022 (0.456)
-3	0.263 (0.359)	0.233 (0.482)	0.244 (0.454)
-2	-0.045 (0.296)	0.393 (0.309)	-0.363 (0.394)
-1	-0.289 (0.287)	0.749** (0.375)	-0.406 (0.364)
0	-1.032** (0.405)	-0.724 (0.953)	-0.898** (0.357)

Continued on next page

Appendix E3. Robustness Test – Active Investor Attention – Quoted Spread
(continued from previous page)

1	-0.178 (0.595)	0.524 (1.386)	-0.742* (0.391)
2	-0.591 (0.395)	-1.316 (0.803)	-0.178 (0.467)
3	-0.215 (0.435)	-0.191 (1.015)	-0.353 (0.412)
4	-0.733 (0.492)	-1.805 (1.123)	-0.569 (0.426)
5	-0.438 (0.461)	-0.711 (0.872)	-0.606 (0.474)
6	0.062 (0.406)	-0.191 (0.664)	0.001 (0.453)
7	0.190 (0.384)	0.027 (0.744)	0.286 (0.455)
8	-0.412 (0.437)	-1.105 (0.772)	-0.192 (0.527)
9	-0.489 (0.488)	-1.184 (0.777)	-0.295 (0.593)
10	-0.733* (0.422)	-0.888 (0.868)	-0.766* (0.459)
Constant	8.593*** (0.352)	2.872 (3.043)	6.748*** (0.426)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Number of observations	6,872	2,510	4,362
Number of deals	132	82	50
Adjusted R-squared	0.675	0.767	0.612

This table presents the results of the regression analysis for the model presented in Equation (2). The dependent variable is the daily average quoted bid-ask spread for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Appendix E4. Robustness Test – Active Investor Attention – Percentage Spread

	Full Sample	No Media	Media
LnTargetSize	-0.245*** (0.016)	-1.150*** (0.331)	-0.236*** (0.031)
LnRelSize	-0.099*** (0.014)	-0.050 (0.086)	0.062 (0.042)
Dummy Diversifying	0.450*** (0.080)	-0.723 (1.008)	0.195** (0.098)
Dummy Stock	-0.606*** (0.043)	1.193* (0.716)	-0.662*** (0.097)
Δ SVI	0.005 (0.004)	0.003 (0.018)	0.015*** (0.005)
Ln Analyst Coverage	-0.339*** (0.029)	0.011 (0.369)	-0.132*** (0.042)
Ln Volume Residual	-0.003** (0.001)	-0.002 (0.004)	-0.011*** (0.003)
Volatility	-0.038*** (0.005)	-0.021*** (0.008)	-0.022*** (0.005)
Price Return	0.183 (0.344)	0.240 (0.419)	-0.366 (0.383)
Linear drift	0.000 (0.000)	0.000** (0.000)	-0.001*** (0.000)
-10	-0.101 (0.196)	-0.385** (0.193)	-0.005 (0.258)
-9	-0.046 (0.126)	0.181 (0.265)	-0.249** (0.126)
-8	-0.031 (0.167)	-0.100 (0.159)	-0.015 (0.186)
-7	-0.153 (0.125)	-0.204 (0.178)	-0.098 (0.140)
-6	-0.076 (0.120)	0.058 (0.201)	0.001 (0.163)
-5	-0.165* (0.098)	-0.143 (0.233)	-0.117 (0.107)
-4	-0.033 (0.201)	-0.125 (0.210)	0.049 (0.285)
-3	0.114 (0.170)	0.104 (0.187)	0.055 (0.234)
-2	-0.111 (0.140)	0.067 (0.132)	-0.172 (0.165)
-1	0.142 (0.178)	0.292 (0.177)	0.048 (0.205)
0	-0.147 (0.168)	-0.034 (0.318)	-0.238* (0.139)

Continued on next page

Appendix E4. Robustness Test – Active Investor Attention – Percentage Spread
(continued from previous page)

1	0.033 (0.290)	0.470 (0.547)	-0.309 (0.222)
2	-0.159 (0.218)	-0.282 (0.331)	-0.129 (0.264)
3	-0.149 (0.166)	0.043 (0.335)	-0.190 (0.156)
4	-0.312 (0.201)	-0.107 (0.462)	-0.460*** (0.155)
5	-0.121 (0.208)	0.114 (0.421)	-0.320** (0.157)
6	-0.285** (0.137)	-0.278* (0.163)	-0.237 (0.173)
7	-0.256** (0.120)	-0.105 (0.194)	-0.211 (0.154)
8	-0.234 (0.185)	-0.031 (0.347)	-0.233 (0.171)
9	-0.148 (0.207)	0.063 (0.376)	-0.234 (0.196)
10	-0.366*** (0.130)	-0.233 (0.247)	-0.358** (0.143)
Constant	4.426*** (0.283)	5.108*** (1.289)	3.231*** (0.308)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Number of observations	6,872	2,510	4,362
Number of deals	132	82	50
Adjusted R-squared	0.512	0.662	0.558

This table presents the results of the regression analysis for the model presented in Equation (2). The dependent variable is the daily average percentage bid-ask spread for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Appendix F

Appendix F1. Robustness Test – PSM – Trading Volume

	Full Sample	No Media	Media
LnTargetSize	0.628*** (0.050)	0.542*** (0.189)	0.893*** (0.103)
LnRelSize	-0.516*** (0.029)	-0.397*** (0.076)	-0.590*** (0.131)
Dummy Diversifying	-0.277 (0.216)	-0.328 (0.857)	3.462*** (0.489)
Dummy Stock	1.545*** (0.098)	0.696 (0.627)	1.662*** (0.332)
Ln Analyst Coverage	0.149** (0.070)	0.225 (0.424)	0.200** (0.101)
Quoted Spread	-0.046*** (0.005)	-0.027*** (0.005)	-0.091*** (0.020)
Volatility	0.048*** (0.011)	0.038*** (0.009)	0.129*** (0.018)
Price Return	1.509*** (0.488)	1.119** (0.468)	3.606*** (1.062)
Linear drift	0.001** (0.000)	0.001 (0.000)	0.001** (0.001)
-10	0.066 (0.271)	-0.110 (0.316)	0.446 (0.450)
-9	0.109 (0.290)	-0.253 (0.273)	0.653 (0.448)
-8	0.039 (0.296)	-0.212 (0.292)	0.353 (0.313)
-7	-0.010 (0.300)	-0.160 (0.357)	0.163 (0.396)
-6	0.063 (0.456)	-0.492 (0.480)	0.553 (0.544)
-5	0.016 (0.369)	0.031 (0.353)	0.020 (0.853)
-4	0.514* (0.289)	0.150 (0.360)	1.325*** (0.443)
-3	0.417 (0.287)	0.598** (0.302)	0.426 (0.485)
-2	0.132 (0.360)	0.217 (0.227)	0.188 (0.788)
-1	0.518* (0.304)	0.776** (0.305)	0.395 (0.438)
0	1.848*** (0.395)	1.615*** (0.440)	2.283*** (0.611)

Continued on next page

Appendix F1. Robustness Test – PSM – Trading Volume
(continued from previous page)

1	1.724*** (0.378)	1.676*** (0.491)	1.961*** (0.441)
2	1.191*** (0.321)	1.669*** (0.366)	0.974** (0.457)
3	1.445*** (0.349)	1.740*** (0.451)	1.163*** (0.433)
4	0.998*** (0.349)	0.809* (0.447)	1.343** (0.565)
5	0.921*** (0.337)	1.028** (0.414)	1.098** (0.427)
6	0.732 (0.463)	0.620 (0.493)	1.142* (0.681)
7	1.481*** (0.370)	1.534*** (0.560)	1.411*** (0.325)
8	0.824** (0.406)	0.520 (0.530)	1.211** (0.488)
9	0.393 (0.309)	0.454 (0.334)	-0.078 (0.597)
10	0.710** (0.329)	0.458 (0.440)	0.681* (0.411)
Constant	7.947*** (0.318)	9.276*** (0.695)	5.450*** (0.652)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Number of observations	4,702	3,299	1,403
Number of deals	90	45	45
Adjusted R-squared	0.544	0.575	0.511

This table presents the results of the regression analysis for the model presented in Equation (1). The dependent variable is the natural logarithm of daily trading volume for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Appendix F2. Robustness Test – PSM – Number of trades

	Full Sample	No Media	Media
LnTargetSize	0.822*** (0.028)	0.699*** (0.075)	1.067*** (0.060)
LnRelSize	-0.528*** (0.018)	-0.525*** (0.033)	-0.672*** (0.072)
Dummy Diversifying	-0.323*** (0.110)	-1.170*** (0.301)	-0.088 (0.308)
Dummy Stock	1.005*** (0.059)	0.257 (0.247)	1.115*** (0.179)
Ln Analyst Coverage	0.030 (0.034)	-0.195 (0.157)	0.350*** (0.045)
Quoted Spread	-0.046*** (0.003)	-0.031*** (0.003)	-0.089*** (0.011)
Volatility	0.051*** (0.008)	0.043*** (0.007)	0.115*** (0.015)
Price Return	0.505 (0.401)	0.303 (0.419)	0.949 (0.841)
Linear drift	-0.000 (0.000)	0.000 (0.000)	0.001* (0.000)
-10	0.163 (0.153)	0.014 (0.185)	0.357 (0.237)
-9	-0.060 (0.216)	-0.113 (0.226)	0.279 (0.225)
-8	-0.037 (0.189)	0.061 (0.142)	0.214 (0.227)
-7	-0.005 (0.166)	-0.069 (0.259)	0.278** (0.128)
-6	0.113 (0.231)	-0.257 (0.245)	0.622** (0.291)
-5	0.212 (0.216)	0.135 (0.262)	0.339 (0.333)
-4	0.154 (0.152)	-0.146 (0.152)	0.721*** (0.239)
-3	0.185 (0.178)	0.229 (0.180)	0.340 (0.253)
-2	0.117 (0.196)	0.119 (0.180)	0.376 (0.308)
-1	0.188 (0.256)	0.345 (0.278)	0.259 (0.339)
0	0.999*** (0.254)	0.969*** (0.312)	1.259*** (0.428)

Continued on next page

Appendix F2. Robustness Test – PSM – Number of trades
(continued from previous page)

1	0.847*** (0.241)	0.809*** (0.281)	1.037*** (0.293)
2	0.547** (0.244)	0.784*** (0.260)	0.635** (0.252)
3	0.599** (0.237)	0.533** (0.229)	0.690** (0.326)
4	0.421** (0.193)	0.152 (0.206)	0.817*** (0.160)
5	0.614** (0.262)	0.596*** (0.229)	0.881*** (0.295)
6	0.245 (0.217)	0.082 (0.224)	0.582** (0.282)
7	0.412* (0.238)	0.439 (0.301)	0.434* (0.233)
8	0.179 (0.260)	-0.050 (0.277)	0.543* (0.307)
9	0.311 (0.206)	0.064 (0.247)	0.369 (0.324)
10	0.333 (0.215)	-0.107 (0.240)	0.655** (0.255)
Constant	-2.103*** (0.182)	-0.549 (0.336)	-5.413*** (0.366)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Number of observations	4,698	3,298	1,400
Number of deals	90	45	45
Adjusted R-squared	0.778	0.775	0.840

This table presents the results of the regression analysis for the model presented in Equation (1). The dependent variable is the natural logarithm of the daily number of trades for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Appendix F3. Robustness Test – PSM – Quoted Spread

	Full Sample	No Media	Media
LnTargetSize	3.357*** (0.254)	9.521*** (1.007)	-2.670*** (0.183)
LnRelSize	-0.650*** (0.132)	0.438 (0.323)	2.432*** (0.220)
Dummy Diversifying	2.472** (1.015)	-11.795*** (4.062)	-12.761*** (0.750)
Dummy Stock	5.864*** (0.423)	11.004*** (2.554)	0.830 (0.786)
Ln Analyst Coverage	1.584*** (0.226)	-6.196*** (2.174)	2.870*** (0.184)
Ln Volume Residual	0.064*** (0.006)	0.022 (0.014)	-0.020*** (0.006)
Volatility	0.512*** (0.065)	0.346*** (0.051)	0.057*** (0.021)
Price Return	-5.937** (2.793)	-5.246** (2.578)	-3.204** (1.587)
Linear drift	0.006*** (0.001)	0.006*** (0.001)	-0.002** (0.001)
-10	3.112 (2.879)	2.982 (3.334)	2.220 (1.470)
-9	2.044 (2.425)	3.745 (2.927)	0.170 (0.782)
-8	-0.851 (1.225)	-1.526** (0.766)	0.264 (0.555)
-7	-1.342 (1.361)	-2.225* (1.337)	1.382*** (0.530)
-6	-0.942 (1.271)	-2.190 (1.397)	0.682 (0.732)
-5	2.250 (2.659)	2.132 (3.326)	1.299 (0.816)
-4	0.977 (1.742)	0.944 (1.919)	-0.009 (0.855)
-3	1.409 (2.035)	1.619 (2.254)	1.345 (0.879)
-2	2.122 (1.471)	2.303* (1.361)	0.654 (0.677)
-1	0.965 (1.726)	1.609 (1.907)	-0.444 (0.688)
0	-1.920 (1.669)	-0.757 (1.953)	-0.773* (0.463)

Continued on next page

Appendix F3. Robustness Test – PSM – Quoted Spread
(continued from previous page)

1	0.608 (2.041)	2.031 (3.165)	-1.601*** (0.419)
2	1.438 (2.416)	2.148 (4.100)	-2.431*** (0.756)
3	2.386 (2.338)	3.248 (3.876)	-2.141** (0.968)
4	-0.317 (1.625)	-0.597 (1.723)	-1.212 (0.862)
5	1.750 (1.958)	1.356 (2.508)	-1.344 (0.875)
6	3.361 (2.915)	2.916 (4.059)	-0.460 (0.697)
7	5.456 (3.597)	7.288 (5.446)	0.388 (0.684)
8	3.067 (2.835)	3.898 (4.142)	-1.082 (0.925)
9	3.315 (3.785)	5.843 (5.106)	-1.075 (1.042)
10	2.860 (3.284)	5.541 (4.459)	-1.094 (1.033)
Constant	-21.124*** (1.412)	-57.261*** (3.290)	13.141*** (1.124)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Number of observations	4,702	3,299	1,403
Number of deals	90	45	45
Adjusted R-squared	0.671	0.797	0.762

This table presents the results of the regression analysis for the model presented in Equation (2). The dependent variable is the daily average quoted bid-ask spread for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.

Appendix F4. Robustness Test – PSM – Percentage Spread

	Full Sample	No Media	Media
LnTargetSize	-0.264*** (0.026)	0.029 (0.123)	-1.018*** (0.043)
LnRelSize	0.175*** (0.018)	-0.016 (0.045)	0.370*** (0.067)
Dummy Diversifying	-0.009 (0.109)	-2.696*** (0.680)	-1.094*** (0.293)
Dummy Stock	0.621*** (0.063)	3.446*** (0.494)	0.826*** (0.178)
Ln Analyst Coverage	0.256*** (0.040)	0.176 (0.286)	0.735*** (0.049)
Ln Volume Residual	0.016*** (0.002)	0.006** (0.003)	0.002 (0.002)
Volatility	0.011*** (0.004)	-0.004 (0.002)	-0.009 (0.007)
Price Return	-0.542 (0.489)	-0.204 (0.437)	-0.879 (0.738)
Linear drift	0.002*** (0.000)	0.001*** (0.000)	0.003*** (0.000)
-10	0.027 (0.278)	-0.082 (0.255)	0.015 (0.417)
-9	0.020 (0.222)	0.323 (0.289)	-0.888*** (0.280)
-8	-0.138 (0.237)	-0.224 (0.161)	-0.482*** (0.181)
-7	-0.192 (0.155)	-0.248 (0.163)	-0.133 (0.107)
-6	-0.158 (0.164)	-0.150 (0.208)	-0.310* (0.180)
-5	-0.033 (0.204)	0.105 (0.249)	-0.391*** (0.111)
-4	-0.296* (0.176)	-0.118 (0.203)	-0.739*** (0.206)
-3	0.002 (0.192)	0.106 (0.223)	-0.352* (0.207)
-2	0.114 (0.200)	0.123 (0.114)	-0.387*** (0.148)
-1	0.075 (0.240)	0.234 (0.186)	-0.549** (0.235)
0	-0.250 (0.211)	0.030 (0.261)	-0.753*** (0.192)

Continued on next page

Appendix F4. Robustness Test – PSM – Percentage Spread
(continued from previous page)

1	-0.078 (0.310)	0.408 (0.458)	-1.012*** (0.171)
2	-0.172 (0.284)	-0.131 (0.249)	-0.897*** (0.293)
3	-0.435*** (0.161)	-0.142 (0.194)	-1.092*** (0.219)
4	-0.575*** (0.185)	-0.365 (0.242)	-1.166*** (0.220)
5	-0.290 (0.204)	-0.156 (0.220)	-1.248*** (0.239)
6	-0.296 (0.198)	-0.143 (0.213)	-0.887*** (0.167)
7	-0.053 (0.196)	0.046 (0.234)	-0.431* (0.226)
8	-0.322** (0.163)	-0.170 (0.192)	-0.895*** (0.187)
9	-0.312 (0.247)	0.061 (0.294)	-0.943*** (0.338)
10	-0.316 (0.246)	0.110 (0.295)	-0.985*** (0.370)
Constant	2.295*** (0.191)	-2.415*** (0.479)	9.124*** (0.444)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Number of observations	4,702	3,299	1,403
Number of deals	90	45	45
Adjusted R-squared	0.589	0.696	0.671

This table presents the results of the regression analysis for the model presented in Equation (2). The dependent variable is the daily average percentage bid-ask spread for all the regressions. All other variables are defined in Appendix A. ***, **, * denote significance at 1, 5 and 10 percent levels, respectively. Robust standard errors in parentheses.