Uncertainty Triggers Sentiment: Evidence from Corporate Takeovers

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Abstract

This paper offers a behavioural approach to the short-term market reaction of various types of takeover deals according to the target's listing status (private or public) and the method of payment. Behavioural finance models suggest that under uncertainty, investors overweight their private information and overreact to public signals. We test this prediction in M&As framework. We find that under high information uncertainty, when investors are more likely to possess firm-specific information, they generate highly positive and significant gains following the announcement of private stock, public cash and private cash acquisitions (positive news) while the market heavily punishes public stock (negative news) deals. On the other hand, under conditions of low information uncertainty when investors do not possess private information, the market reaction is complete (zero abnormal returns) for any type of acquisition.

JEL Classification: G14, G30, G34
Key Words: Information Uncertainty, Private Information, Investor Sentiment, Takeover Gains

1. Introduction

Extensive literature has investigated short-run bidder gains and possible factors which affect shareholders wealth following the announcement of a takeover deal[1]. Traditional approaches to M&A gains suggest that the market reaction following the announcement of a takeover illustrates potential synergy or revaluation gains. Neoclassical theories suggest that the motive for M&As should be synergistic gains emanating from economies of scale after the combination of the two companies. The market reaction at the announcement day under this theory should reflect the present value of potential synergy gains minus the premium paid for the target firm. Fuller et al. (2002) and Draper and Paudyal (2008) claim that the short-run market reaction to bidder takeover announcements may reflect revaluation gains. Fuller et al. (2002) claims that gains in first-order deals may be higher because they incorporate revaluation gains as well as the potential synergy gains.

This paper offers an alternative behavioural approach to explain bidder gains following the announcement of corporate takeovers. Our study is motivated by the theoretical work of behavioural finance models. One of the most well-documented investor biases is overconfidence. Experimental evidence shows that investors tend to overestimate the precision of their information, especially in cases where they have been personally involved in the collection of this information (Odean (1998)). The theoretical model of Daniel et al. (1998) predicts that investors are overconfident about their private information. As a result, they attribute more weight to their private information and underreact to public signals. Additionally, Daniel et al. (1998, 2001) also claim that investors become even more overconfident under conditions of information uncertainty. Zhang (2006) also suggest that the investor overreaction should be more prominent under conditions of information uncertainty since investors become more overconfident for firms that are hard to value. He finds that under conditions of information uncertainty, announcements of good news generate relatively higher abnormal returns while announcements of bad news generate relatively lower abnormal returns. While Zhang (2006) controls only for information uncertainties, he does

[1] For evidence on announcement period gains to acquirers see Dodd and Ruback (1977) and Moeller, Schlingemann and Stulz (2004) for the US and Draper and Paudyal (2006) for the UK. Recent evidence shows that the announcement period gains to bidders are dependent on the listing status of targets: acquirers of listed targets tend to lose, while unlisted target acquirers gain (Faccio, McConnell and Stolin, 2006; Draper and Paudyal, 2006).

not include private information into his analysis, proposing that further investigation is required.

Motivated by the above empirical and theoretical evidence, we examine the short-term market reaction following takeover announcements for high and low information uncertainty[2] bidding firms when investors are more likely or less likely to possess private information. Under high information uncertainty conditions, and especially when investors are more likely to possess private information, investor sentiment is expected to be much higher and lead to a higher overreaction following takeover announcements. On the other hand, sentiment is expected to be low when uncertainty is lower and investors are less likely to have collected private information.

Corporate finance literature shows that various types of takeovers signal positive or negative news regarding the intrinsic value of the bidding firm. There is substantial evidence which suggests that the target firm's listing status and the method of payment used to finance the takeover signal different news about the valuation conditions of the bidding firm. The signalling hypothesis employed by Travlos (1987) suggests that acquisitions of public targets paid for with stock are perceived by investors as "bad" news assuming that the bidder is overvalued. The opposite signal is received by investors when cash is used as a method of payment. Furthermore, Shleifer and Vishny (2003), in an attempt to explain merger waves, claim that overvalued bidders use their overvalued equity to acquire undervalued target firms. With respect to acquisitions for private firms, Chang (1998) and Draper and Paudyal (2006) support that 'good' news is signalled when stock is used as method of financing the takeover. The reasoning offered is that the concentrated ownership of the privately held firm has more incentive to carefully evaluate the bidder's stock as they would not desire to end up with large amounts of overvalued equity. Hence, it is quite unlikely that they would accept overvalued equity. Cash acquisitions for a private firm are usually positive signals but do not reveal much information regarding the bidder's intrinsic value. Acquirers are less uncertain about the potential synergy gains and are confident enough to offer cash as they are not willing to share potential synergy gains with the ownership of the target firm by creating blockholders. Therefore, a cash acquisition does not directly reveal information about the

[2] By information uncertainty, we mean ambiguity regarding the bidding firm's value (Zhang (2006))

bidding stock value but can in general be classified as a relatively positive piece of information.

Following the evidence discussed, we hypothesize that for value ambiguous bidders[3] when investors possess private information, they will overreact and generate highly positive abnormal returns following the announcement of acquisitions for private targets financed with cash or stock and for public targets financed with cash (good news). Under the same conditions, the market reaction will be highly negative following announcements of takeovers for public targets paid for with stock (bad news). On the other hand, when uncertainty about the bidder's intrinsic value is low and investors are less likely to have collected private information, the market reaction is expected to be complete (zero abnormal returns).

We employ four proxies[4] for information uncertainty and these include: the age, size, sigma and trading volume of the bidding firm. Furthermore, to capture whether investors are more likely to possess private information or not, we employ stock price synchronicity as introduced by Roll (1988) and further developed by both Morck et al. (2000) and Chen et al. (2007).

The main findings suggest that under conditions of high information uncertainty and when investors are more likely to possess private information (high investor sentiment), announcements of takeovers which signal positive news for the bidding firm's intrinsic value (private stock, private cash and public cash deals) generate highly positive abnormal returns while takeovers which signal negative news (public stock) suffer high losses. On the other hand, when uncertainty is lower and investors are likely to possess private information (high synchronicity), zero economical and statistical abnormal returns are obtained irrespective of the type of the deal.

This paper contributes to the corporate and behavioural finance literature in several ways. First, it offers a behavioural approach to explain short-run bidder gains. Previous studies assume that the market is semi-strong efficient and short-run bidder gains captures either potential synergy or revaluation gains. We offer evidence that the findings of Travlos (1987)

[3] As value ambiguous bidders, we mean bidder for which investors are uncertain whether their market value is close to their fundamental value.
[4] Age is used as a proxy for information uncertainty by Zhang (2006), Jiang, Lee and Zhang (2004), Barry and Brown (1985), Size by Zhang (2006) and Sigma by Zhang (2006), Jiang, Lee and Zhang (2004).

and Chang (1998) may be driven by high investor sentiment. Second, it shows that investor sentiment is a crucial factor to explain and understand various financial phenomena. When investor sentiment is high, the market overreacts to various types of takeover announcements while low sentiment leads to under reaction. Third, it contributes to the behavioural finance literature by empirically examining the propositions of Daniel et al. (1998). Forth, this study simultaneous examines the effect of uncertainty and private information in the same framework. Finally, it offers further evidence that the market reacts asymmetrically following the announcement of positive and negative signals.

The remainder of this paper is structured as follows. Section 2 reviews the literature on investor biases, stock price informativeness and forms our testable hypotheses. Section 3 describes the sample, data and methodology. Section 4 analyses the empirical findings before Section 5 summarizes the conclusions of the investigation.

2. Related Literature

2.1 Uncertainty and Investor Sentiment

In the recent past, financial researchers have started including factors driven by individual behaviour and their cognitive biases within financial modelling. One of the most common human biases in the finance literature is overconfidence. Odean (1998) claims that investors are overconfident and markets, in turn, become affected by this psychological bias. Therefore, psychological finance models based on psychological evidence could help to explain more deeply individuals' behaviour (DeBondt and Thaler (1985)).

Daniel, Hirshleifer and Subrahmanyan (1998) claim that several market reactions which have been documented in the finance literature cannot be explained by traditional models which are based on the assumptions that markets are rational and securities are rationally priced as a reaction to publicly available information. A large part of the psychology literature[5] suggests

[5] Griffin and Tversky (1992), Greenwald (1980), Svenson (1981), Cooper et al. 1988, Taylor and Brown (1988), Alpert and Raiffa (1982), Fischhoff, Slovic, and Lichtenstein (1977), Batchelor and Dua (1992), Lichtenstein, Fischhoff, and Phillips (1982) and Yates (1990.

that individuals overestimate their own abilities in the decision making process whilst also overestimating the precision of the outcome of the decision made. Investors undoubtedly extract information from various sources (for example, from financial statements, the press and rumours amongst others). However, if they overestimate their own ability to extract this information or they overweight the precision and significance of this information, then they will end up overreacting by underestimating the forecast error involved in their decision-making. Similarly, Daniel et al (1998) define overconfident investors as those which overestimate the precision of their private information as opposed to the public signals available. They find that overconfident investors who possess private information will overweight this information, leading to a stock price overreaction. When an investor trades on his/her private information/signals and subsequently receives a public signal which serves to confirm the trading strategy being executed, then the investor's confidence will rise. One of the advantages of Daniel's et al. (1998) when compared to previous behavioural models[6] is that it assumes that investors become overconfident about private signals and therefore allows for both over- and under-reaction effects. Furthermore, the authors claim that since the model is mainly based on both private information and subsequent under or overreaction, its predictive power will be more evident for firms with higher information uncertainty. Likewise, Hirshleifer (2001) suggests that psychological biases grow both under conditions of greater uncertainty, in the absence of accurate feedback about fundamentals.
Zhang (2006) suggests that under conditions of information uncertainty, higher (lower) stock returns are obtained following good (bad) news. However, he does not account for investor private information and overconfidence.

Finally, Epstein and Schneider (2008) analyse and model investors' behaviour when they find it hard to judge the quality of the signal. In such cases, investors treat the signal as ambiguous. Two main outcomes are observed related to ambiguous signals. Firstly, investors react asymmetrically to ambiguous signals. That means that investors react more strongly to bad news than to good news. Secondly, investors will be negatively preoccupied on the anticipation of an ambiguous signal. Investors therefore require extra returns to bear the expected low quality information. However, Epstein and Schneider (2008) note that event study conclusions should be treated with caution. A possible negative market reaction does

[6] Kyle and Wang (1997), Odean (1998) and Wang (1998) define overconfidence as overestimation of information precision regardless of whether the information is private or public.

not necessarily imply that investors disapprove fundamentals and could be due to the investor's disapproval to ambiguous information.

2.2 Stock Price Synchronicity and Private Information

Models emanating from the school of behavioural finance have focused on the role of private information and the subsequent impact on investors' cognitive biases alongside their following investment decisions. One of the roles of financial markets is to facilitate the production and accumulation of information into stock prices. This happens through the trading activities of speculators on stock prices. Financial economists support the notion that stock returns incorporate firm-specific and market-wide information. Roll (1988) claims that stock prices move together depending on the amount of firm-specific or market-wide information capitalized in the stock prices. Roll (1988) also explains that stock price movements are influenced by market-wide economic shocks, by industry shocks and by news specific to the firm. He suggests that a low R^2 value should be observed in periods of no public news about the firm, indicating that the price movement is triggered by private information. Chen, Goldstein and Jiang (2007) among others[7] adopt synchronicity as a measure of stock price informativeness and show that there is a strong positive relationship between the amount of private information within stock prices and the sensitivity of corporate investment to stock prices. They suggest that *managers learn from the private information* incorporated in stock prices and take advantage of this information within their corporate investment decisions. More specifically, they suggest that private information is incorporated in stock prices through speculators trading activity. High amounts of private information does not imply that stock prices are close to fundamentals. The variation between stock price and fundamental value depends on the amount of public information as well. The incorporation of private information is a timely procedure and that may imply that stock prices with more private than public information might be further away from fundamentals. Theoretical evidence (Dow and Gorton (1997), Subrahmanyam and Titman (1999)) suggests that managers can extract useful information hidden in stock prices. Stock prices accumulate a lot of information from various trading participants in the market who do not have any other way

[7] Morck, Yeung and Yu (2000), Durnev, Morck, Yeung and Zarowin (2003), Durnev, Morck and Yeung (2004), Jin and Myers (2006), Fernades and Ferreira (2008), Ferreira, Ferreira and Raposo (2008)) have used stock price nonsynchronicity to examine price informativeness.

of communicating with the firm apart from via the trading process. Consequently, stock prices may incorporate information that managers do not have. Different stocks have different levels of private information incorporated within them due to the various costs involved in the acquisition and production of such information (Grossman and Stiglitz (1980)). Roll (1988) claims that the measure of stock price nonsynchronicty is not correlated with public information and thereby serves as a good approach to capture private information. In Roll's own words, ''*the financial press misses a great deal of relevant information generated privately*'' (Roll, 1988: 564).

2.3 Our Story

Studies that examine short-term bidder performance usually assume that the market is efficient so that the short-term market reaction depicts the net present value of potential synergy gains that may be created minus the premium paid for the target firm. Fuller et al. (2002) suggest that the short-term bidder gains may depict revaluation gains which are usually captured in the first-order deals (especially when the bidder engages in multiple takeover bids). This paper offers a behavioural perspective to explain short-term bidder abnormal returns.

This paper is motivated by the theoretical behavioural finance models of Daniel et al (1998, 2001) and Hirshleifer (2001) who conclusively suggest that investors are overconfident about their private information and due to this psychological bias, they overreact to private information. The psychological bias of overconfidence increases under conditions of information uncertainty when the firm's value is difficult to predict. Zhang (2006) empirically shows that under conditions of uncertainty, good (bad) news generates relatively higher (lower) abnormal returns while when uncertainty is low, there is less market predictability.

This paper empirically investigates the above theoretical evidence in M&As framework. Corporate finance literature shows that various types of takeovers signal positive or negative news regarding the intrinsic value of the bidding firm. For instance, the Myers and Majluf (1984) theory suggests that managers who believe that their firm's stock price is undervalued will prefer to finance a potential acquisition with cash while when they consider that their stock price is overvalued, they will prefer equity offers. The signalling hypothesis, as

proposed in Travlos (1987), suggests that investors will perceive the announcement of an equity offer for a public target as bad news since, in the Myers and Majluf (1984) setting, they interpret that the bidding firm must be overvalued. On the other hand, cash offers are perceived as good news about the acquiring firm's intrinsic value. Shleifer and Vishny (2003) propose a model in order to explain merger waves. Bidding firms whose stock is overvalued proceed to takeover using equity as a method of payment. Consequently, acquisitions of public targets paid for with stock signal negative news regarding the bidding firm's true value while those paid for with cash signal relatively positive news.

On the other hand, Chang (1998) and Draper and Paudyal (2006) suggest the opposite effect for stock offers to acquire private targets. Investors interpret a stock acquisition for a private target as good news, since the small number of owners of the private firm has a stronger incentive to carefully examine the true value of the bidders stock. Therefore, it is highly unlikely that the owner of the privately held firm will accept stock if it is overvalued. Due to the signalling effect, private stock acquisitions can be classified as good news that the bidder stock price is not overvalued. A cash acquisition for a private firm is usually a positive announcement but does not reveal much information about the bidder's intrinsic value. The acquirer is less uncertain about the potential synergy gains and is confident enough to offer cash. It infers loosely that the bidder is confident as they do not issue equity in order to avoid sharing potential synergy gains with the ownership of the target firm, as the issue of equity would result in the creation of blockholders. Therefore, a cash acquisition does not directly reveal information about the bidder's stock value but can in general be classified as a relatively positive piece of information.

Following the above discussion, we form the following testable hypothesis:
Under conditions of high information uncertainty when investors are more likely to possess private information (high sentiment), we expect a highly positive market reaction following the announcement of takeovers which signal positive news about the intrinsic value of the bidding firm (i.e. private stock, public cask and private cash deals) while we expect highly negative market reaction following the announcement of takeovers which signal negative news regarding the intrinsic value of the bidding firm (i.e. public stock deals). On the other hand, when uncertainty about the bidding firm's value is low and investors are less likely to possess private information (low sentiment), there is expected to be no market reaction following any type of acquisition (i.e. private cash, private stock, public cash or public stock).

3. Sample Selection, Data and Methodology

The sample consists of takeover announcement deals undertaken by UK bidding firms for the period between 01/01/1985 and 31/08/2009. The announcements were collected by Security Data Corporations (SDC). To be included in our final sample, the deals need to meet the following criteria:

- The acquirer is a U.K. firm publicly traded on the London Stock Exchange (LSE) with five days of return data available around the announcement date of the takeover as well as available data for one to three years returns from the DataStream database.
- The target company is either a listed or unlisted company and can be a domestic or a foreign company.
- The acquiring firm purchases at least 50% of the target's shares.
- The deal value is £1 million or more.
- The deal value represents at least 1% of the market value of the acquirer.
- Multiple deals announced within a 5 day period are excluded.
- Financial and utility firms, for both bidders and targets, are excluded from the sample (Fuller, Netter and Stegemoeller (2002)).

The initial sample from Thompson One Banker was 20306 deals. After excluding deals that do not meet these criteria, our sample comprises of 7019 deals out of which 4058 are takeovers for private, 713 for public and 2248 for subsidiary target firms. We include all private, public and subsidiary firms in our initial sample in order to get a larger sample size and therefore obtain a more unbiased distribution when dividing deals into high versus low information uncertainty according to the four proxies employed. Table 1 presents the distribution of takeovers from 1985-2009 for the overall sample and according to the synchronicity measure and the four measures for information uncertainty. We observe that in the begging of the sample period, high synchronicity firms are relatively more than low synchronicity ones. That indicates that in the late of 80', beginning of 90', there were less firms whose stock price was more likely to incorporate private information. As time goes by, the market seems to become more efficient and investors more sophisticated and we observe an increasing trend of low synchronicity firm.

[Insert table 1 about here]

3.1 Measures of Information Uncertainty

Age is the first proxy used to capture information uncertainty. Literature suggests that the younger the firm, the higher the amount of uncertainty there is regarding the firm's value (Zhang (2006), Jiang, Lee and Zhang (2004), Barry and Brown (1985)). Young firms are associated with a lower amount of information dissemination. Age is measured as the difference between the date of incorporation of the firm and the date of the announcement of the acquisition.

Size is the second proxy employed to capture information uncertainty about the bidder's value. Small firms are less likely to disclose a lot of information and are less diversified than larger firms. However, small firms also have a lower number of suppliers, investors and customers and therefore the accessibility of information can be more difficult. Hence, small size firms are more likely to be associated with a higher degree of information uncertainty (Zhang (2006)). Size is measured as the Market Value (MV) of the bidding firm 20 days before the announcement of the acquisition.

Sigma is the third measure employed to measure information uncertainty. Bidders with high return volatility are more likely to exhibit uncertainty about their true value (Zhang (2006), Jiang, Lee and Zhang (2004)) than those with more stable operations. Sigma is measured as the daily bidder excess returns 200 days before the announcement of the acquisition.

Trading Volume is the fourth and last proxy used within this work. It is employed in order to capture information uncertainty. Low trading volumes suggest that a lower number of investors, and therefore less trading activity, are associated with the firm. Trading Volume is measured as the average trading volume of the bidder 12 months prior to the announcement of the acquisition.

3.2 Measure of Private Information

This investigation follows Chen, Goldstein and Jiang (2007) to measure stock price synchronicity. The variation of stock returns can be decomposed into the following components - market-wide variation, industry-specific variation and firm-specific variation.

This work needs to capture the last component of firm-specific variation which can be measure by the R^2 of the following regression:

$$r_{i,j,t} = \beta_{i,0} + \beta_{i,m}\, r_{m,t} + \beta_{i,j}\, r_{j,t} + \varepsilon_{i,t}$$

where $r_{i,j,t}$ is the return of bidder i in industry j at time t, $r_{m,t}$ is the market return at time t and $r_{j,t}$ is the return of industry j at time t. To construct this regression, weekly returns for a period of 24 weeks (6 months) before the announcement of the acquisition are used.

3.3 Short-Run Event Study Methodology

To calculate the acquiring firms' performance and identify the short-run impact of information uncertainty and private information, we employ standard event study methodology (Fuller et al (2002)) to calculate the Cumulative Abnormal Returns (CARs) for a five-day period (-2, +2) around the announcement date, as provided by Datastream. We estimate abnormal returns using the modified market model:

$$AR_{i,t} = R_{i,t} - R_{m,t}$$

Where $AR_{i,t}$ is the excess return of bidder i on day t; $R_{i,t}$ is the return of bidder i on day t measured as the percentage change in return index including dividends of bidder i; and $R_{m,t}$ is the market return estimated as the percentage change in FT-All share Index (value weighted) on day t. The CARs are calculated as the sum of the Abnormal Returns ($AR_{i,t}$) for the five days surrounding the announcement of the bid as per the following equation:

$$CAR_i = \sum_{t=-2}^{t=+2} (R_i - R_m)$$

T-statistics are used to test the null hypothesis that the mean CAR is equal to zero for a sample of n firms is as follows:

$$t_{CAR_i} = \frac{\sum_{i=1}^{i=n} \frac{CAR_{i,t}}{n}}{\left(\sigma \left(\sum_{i=1}^{i=n} \frac{CAR_{i,t}}{n} \right) \Big/ \sqrt{n} \right)}$$

Where $CAR_{i,t}$ denotes the sample average, and $\sigma(CAR_{i,t})$ denotes the cross-sectional sample standard deviations of abnormal returns for the sample of n firms. We do not report the t-statistic in tables but the p-value instead. The p-value provides a sense of strength of the evidence against the null hypothesis. The lower the p-value, the stronger the evidence that the mean CAR is different from zero.

4. Empirical Results

4.1. Univariate Analysis

Table 2 presents the five-day cumulative abnormal returns (CARs) for the entire sample as sorted by the target's listing status (i.e. private or public) and by the method of payment used to finance the deal (cash, stock or mixed). Bidders for the overall sample generate 1.46% abnormal returns, which is mainly driven by the positive performance of takeovers for private target firms (1.69%) which overpopulate the UK M&A market. On the other, acquirers for public targets suffer -0.46% losses. With respect to the method of payment used, acquisitions for private targets paid for with stock (3.60%) enjoy 2.47% more abnormal returns than those paid for with cash (1.13%) (Chang (1998), Ang and Cohers (2001), Draper and Paudyal (2006) and Fuller, Netter and Stegemoller (2002)). On the other hand, takeovers for public target firms paid for with ewuity suffer significant losses (-2.04%) while those paid with cash generate positive abnormal returns (0.95%). Their difference is statistically significant at the 1% significance level (Travlos (1987)). Table 2 presents the performance of subsidiary firms as well which is similar to the pattern observed for takeovers for private targets. However, the rest of the analysis focuses mainly on takeovers for private and public targets paid for with cash and stock since the signal from such type of deals is more straightforward for the market. We choose to include subsidiary and mixed deals in the initial sample in order to have a larger sample size and therefore obtain a more unbiased distribution when dividing deals into high versus low information uncertainty according to the four proxies employed.

[Insert table 2 about here]

Tables 3 illustrates the short-term performance of takeovers for private and public target paid for cash and stock respectively (PrivateCash, PrivateStock, PublicCash and PublicStock) under conditions of information uncertainty as captured by the Age proxy. The younger a firm is, the higher uncertainty regarding the firms true value. PrivateStock acquisitions serve as a positive signal to the market that bidding firm's share price is not overvalued. In Panel A, the overall short-term performance of the private stock portfolio is 3.80%. Under conditions of information, when investor sentiment is higher, private stock deals generate even more positive abnormal returns (4.85%) while under low information uncertainty, when sentiment is lower, they generate lower abnormal returns (1.93%). Their difference is 3.15%, statistically significant at the 16% level. Daniel et al. (1998, 2001) suggest that investors tend to overweight their private information and become even more overconfident under conditions of information uncertainty. When private information is included and therefore sentiment becomes even more intense, private stock deals generate even higher abnormal returns (6.32%). On the other hand, in the absence of uncertainty and private information, private stock deals obtain marginally positive but insignificant abnormal returns. (0.49%). The differential between the two extreme portfolios is heightened (5.83%). This indicates that when investors' sentiment is high, there is a highly positive reaction following the announcement of events that signal positive news about the bidding firm's intrinsic value. On the other hand, when sentiment is low, there is no significant market reaction.

[Insert table 3, 4, 5 and 6 about here]

The picture for private cash (Panel B) and public cash (Panel D) takeovers is similar to the one presented for private stock deals. As discussed above, private cash and public cash deals are positive but quite indirect signs that the bidding firm is not overvalued. Therefore, the higher the sentiment, the more positively the market reacts following such deals (2.43% for private cash and 3.85% for private stock). Conversely, when sentiment is low, marginally positive but insignificant abnormal returns are obtained (0.19% for private cash and 0.80% for private stock).

The overall picture is reversed for acquisitions for public target firms paid for with equity (Panel C). Public stock acquisitions signal negative news to the market about the bidding firm's value. In the overall sample, they generate -2.35% abnormal returns. When we control for uncertainty, the negative performance becomes even more negative under high

uncertainty (-3.87%) while it declines to -0.28% under lower uncertainty. When investors are more likely to possess private information, they overweight this information especially under conditions of uncertainty and become even more overconfident. Following the announcement of public stock acquisitions (negative news), investors overreact and generate even more negative abnormal returns (-5.89%). On the other hand, under lower uncertainty and when investors are less likely to possess private information, sentiment is expected to be quite low and therefore no significant market reaction is observed. The differential for public stock takeovers for the two extreme portfolios (High versus Low sentiment) is 6.50%, statistically significant at the 1% level.

For robustness reason, we employ another 3 proxies, namely size, sigma, and trading volume to capture information uncertainty (Table 4, 5 and 6). The overall picture for the four types of acquisitions (private stock, private cash, public stock and public cash) remains similar to the one described by the age proxy and is visually depicted in Figure 1.

5.2. Multivariate Analysis

The M&A literature has documented a number of different factors that affect the performance of bidding firms surrounding the event, such as book-to-market (Rau and Vermaelen, 1998), size (Moeller et al., 2004) relative size (Fuller et al., 2002) and industry diversification (Doukas and Kan, 2004).

The results generated so far by employing a univariate type of analysis indicate when investor sentiment is high, private and public cash deals generate positive and significant abnormal returns while public stock deals suffer highly negative abnormal returns. Under conditions that investor sentiment is low; there is no market reaction irrespective of the deal. To better examine whether differences in acquirer and deal characteristics explain the abnormal return differentials we adopt a multivariate regression framework where announcement period returns to bidders are regressed against a set of explanatory variables that have been proved in the literature to affect bidders' performance.

[Insert table 7 about here]

In all regressions we include the following control variables: the bidder's book-to-market value, which is measured by the bidder's net book value of assets divided by its market value

a month before the announcement of the deal; the deal's relative size, which is measured as the ratio of the deal value over the bidder's value; a dummy variable for diversifying deals which takes the value of 1 when the acquirer's two-digit SIC code is different from that of the target, and zero otherwise, a dummy variable that takes the value of 1 if the target is a domestic firm. Finally, other explanatory variables include: the acquirer's lagged excess return for 180 days prior to the bid's announcement; and the market portfolio return (FT-All Share) for the same 180-day period prior to the announcement.

For brevity, we present multivariate analysis only for private stock and public stock deals (Table 7). As it has been discuss private stock deals serve as the most positive signal while public stock as the most negative signal for the bidding firm's intrinsic value. Panel A present results for the Age proxy. In regression (1) and (5), we include a dummy variable for High Information Uncertainty (HighIU) that takes the value of 1 if the bidding firm belong in the top 30% of the youngest firms in our sample. As expected from the univariate analysis the coefficient is positive for private stock deals (regression 1) and negative for public stock deals (regression 5). In both cases, the coefficients are not statistically significant. In Regressions (2) and (6), we include a dummy variable that takes the value of 1 if the deal belongs in the high uncertainty and low synchronicity group. In regression (2), the coefficient carries a positive and insignificant value (0.032) but in regression (6), the coefficient is negative (-0.054) and highly statistically significant. This indicates that under uncertainty, investors overweight their private information and we observe a significant negative relationship between CARs and high sentiment. The opposite effect is observed in regressions (3) and (7). The dummy variable HsLiu attempts to capture takeovers when sentiment is low. In regressions (4) and (8), we include dummy variable that capture all four combinations of high, low information uncertainty and high low synchronicity. The results remain similar. The LsHiu (high sentiment) coefficient remains positive and insignificant for private cash deals (regression (4)) while negative and high significant for public stock deals (regression (8)). This evidence is in accordance with Epstein and Schneider (2008), Bernard et al. (1997), La Porta et al. (1997) and Skinner and Sloan (1999) who find significant differences in the markets response with regards to good and bad news.

5. Conclusions

This paper examines the market response to takeover announcements. We adopt a behavioural approach to UK mergers and acquisitions under conditions of information uncertainty and private information. More specifically, we examine short-term bidder gains controlling for information uncertainty and investor's private information in the surrounding environment of the bidder. The main findings suggest that under conditions of high information uncertainty and when investors are more likely to possess private information (high investor sentiment), announcements of takeovers which signal positive news for the bidding firm's intrinsic value (private stock, private cash and public cash deals) generate highly positive abnormal returns while takeovers which signal negative news (public stock) suffer high losses. On the other hand, when uncertainty is lower and investors are likely to possess private information (high synchronicity), zero economical and statistical abnormal returns are obtained irrespective of the type of the deal.

This evidence is consistent with Daniel et al. (1998, 2001) who suggest that investors are overconfident and overreact to public announcements under conditions of uncertainty. Furthermore, they claim that investors, due to self-attribution bias, become even more overconfident about their private information and overreact even more. Consequently, under uncertainty, investors with private information react highly positively following the announcement of good news (private cash, private stock, public cash deals) while they react very negatively following the announcement of bad news (public stock deals). When there is low uncertainty and investors do not possess private information, the market reaction is complete. The multivariate analysis shows that the coefficients of the high uncertainty dummy are mostly negative and significant following the announcement of public acquisitions paid for with stock. This evidence is consistent with Epstein and Schneider (2008) who suggest that investors react asymmetrically to news when they are ambiguous about the firm value. Bernard et al. (1997), La Porta et al. (1997) and Skinner and Sloan (1999) show significant differences in the markets response with regards to good and bad news.

Overall, this paper offers a different approach to explain the market reaction following announcement takeovers. The short-run market reaction to M&As announcements reflect

either potential synergy or revaluation gains. Our evidence suggests that there is a simple market overreaction driven by investor biases. Investors' biases increase especially with uncertainty and depending on the signal conveyed by each type of takeover, investors react either positively or negatively. In the absence of uncertainty, the market reaction is complete.

References

Ang, J. and Kohers, N. (2001), 'The take-over market for privately held companies: the US experience', Cambridge Journal of Economics, 25, 723-748.

Barry, C. B. and Brown, S. J. (1985), 'Differential Information and Security Market Equilibrium', Journal of Financial and Quantitative Analysis, 20, 407-422.

Benos, A. (1998), 'Aggressive of Survival of Overconfident Traders', Journal of Financial Markets, 1, 353-383.

Bernard, Victor, Jacob Thomas, and James Wahlen, 1997, Accounting based stock price anomalies: Separating market nefficiencies from risk, Contemporary Accounting Research 14, 89–136.

Chan, K. and Hameed, A. (2006), 'Stock price synchronicity and analyst coverage in emerging markets', Journal of Financial Economics, 80, 115-147.

Chang, S. Y. (1998), 'Takeovers of privately held targets, methods of payment, and bidder returns', Journal of Finance, 53, 773-784.

Chen, Q., Goldstein, I. and Jiang, W. (2007), 'Price informativeness and investment sensitivity to stock price', Review of Financial Studies, 20, 619-650.

Daniel, K., Hirshleifer, D. and Subrahmanyam, A. (1998), 'Investor psychology and security market under- and overreactions', Journal of Finance, 53, 1839-1885.

Daniel, K. D., Hirshleifer, D. and Subrahmanyam, A. (2001), 'Overconfidence, arbitrage, and equilibrium asset pricing', Journal of Finance, 56, 921-965.

Debondt, W. F. M. and Thaler, R. (1985), 'Does the Stock-Market Overreact', Journal of Finance, 40, 793-805.

Dow, J. and Gorton, G. (1997), 'Stock market efficiency and economic efficiency: Is there a connection?' Journal of Finance, 52, 1087-1129.

Draper, P. and Paudyal, K. (2006), 'Acquisitions: Private versus public', European Financial Management, 12, 57-80.

Draper, P. and Paudyal, K. (2008), 'Information asymmetry and bidders' gains', Journal of Business Finance and Accounting, 35, 376-405.

Durnev, A., Li, K., Morck, R. and Yeung, B. (2004), 'Capital markets and capital allocation: Implications for economies in transition', Economics of Transition, 12, 593-634.

Durnev, A., Morck, R. and Yeung, B. (2004), 'Value-enhancing capital budgeting and firm-specific stock return variation', Journal of Finance, 59, 65-105.

Durnev, A., Morck, R., Yeung, B. and Zarowin, P. (2003), 'Does greater firm-specific return variation mean more or less informed stock pricing?' Journal of Accounting Research, 41, 797-836.

Einborn, H. (1980), 'Overconfidence in Judgement', New Directions for Methodology of Social and Behavioural Science', 4, 1-16.

Epstein, L. G. and Schneider, M. (2008), 'Ambiguity, information quality, and asset pricing', Journal of Finance, 63, 197-228.

Fernandes, N. and Ferreira, M. (2008) 'Does international cross-listing improve the information environment', Journal of Financial Economics, 88, 216-244.

Ferreira, D., Ferreira, M. and Raposo, C. (2008), 'Board Structure and Price Informativeness', ECGI - Finance Working Paper No. 160/2007.

Fuller, K., Netter, J. and Stegemoller, M. (2002), 'What do returns to acquiring firms tell us? Evidence from firms that make many acquisitions', Journal of Finance, 57, 1763-1793.

Griffin, D. and Tversky, A. (1992), 'The Weighing of Evidence and the Determinants of Confidence', Cognitive Psychology, 24, 411-435.

Grossman, S. J. and Stiglitz, J. E. (1980), 'Stockholder Unanimity in Making Production and Financial Decisions', Quarterly Journal of Economics, 94, 543-566.

Hirshleifer, D. (2001), 'Investor psychology and asset pricing', The Journal of Finance, 56, 1533-1597.

Jiang, G., Lee, C. And Zhang, Y. (2005), 'Information uncertainty and expected returns', Review of Accounting Studies, 10, 185-221.

Jin, L., andMyers, S. (2006), 'R^2 around the world: New theory and new tests', Journal of Financial Economics, 79, 257-292.

La Porta, R., Lakonishok, J., Shleifer, A. and Vishny, R. (1997), 'Good news for value stocks: Further evidence on market efficiency', Journal of Finance, 52, 859–874.

Moeller, S. B., Schlingemann, F. P. and Stulz, R. M. (2004), 'Firm size and the gains from acquisitions', Journal of Financial Economics, 73, 201-228.

Morck, R., Yeung, B. and Yu, W. (2000), 'The information content of stock markets: why do emerging markets have synchronous stock price movements?', Journal of Financial Economics, 58, 215-260.

Myers, S. C. and Majluf, N. S. (1984), 'Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have', Journal of Financial Economics, 13, 187-221.

Odean, T. (1999), 'Do investors trade too much?', American Economic Review, 89, 1279-1298.

Roll, R. '$R^{2,}$'Journal of Finance, 43, 541–66.

Shleifer, A. and Vishny, R. W. (2003), 'Stock market driven acquisitions', Journal of Financial Economics, 70, 295-311.

Skinner, D. J., Sloan, R. (1999), ‘Earnings surprises, growth expectations and stock returns or Don’t let an earnings torpedo sink your portfolio’, Unpublished working paper, University of Michigan Business School.

Subrahmanyam, A. and Titman, S. (1999), 'The going-public decision and the development of financial markets', Journal of Finance, 54, 1045-1082.

Travlos, N. G. (1987), 'Corporate Takeover Bids, Methods of Payment, and Bidding Firms Stock Returns', Journal of Finance, 42, 943-963.

Zhang, F. (2006), ‘Information Uncertainty and Stock Returns’, The Journal of Finance, 61, 105-137.

Figure 1

This figure illustrates the five days Cumulative Abnormal Returns for the PrivateCash, PrivateStock, PublicCash and PublicStock portfolios. The first bar of each group presents the overall performance of the portfolio. The second (grey) bar show the performance under high investor sentiment and the third (stripped) bar shows the performance under low investor sentiment. High Sentiment is described as the combination of High information Uncertainty and High probability that investors possess private information. Low Sentiment is described as the combination of Low information Uncertainty and Low probability that investors possess private information. In this graph, Uncertainty is captured by the proxy of Age.

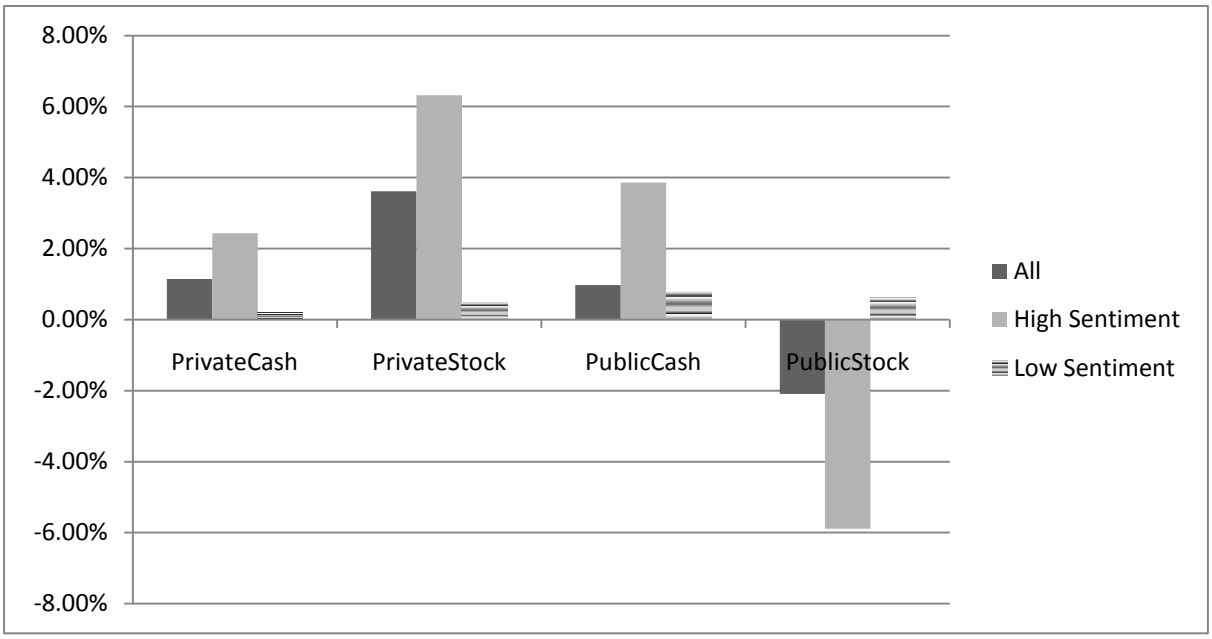

Table 1. Summary Statistics by acquisitions by Year

The table presents the number of acquisitions by year and the percentage of total number of acquisitions by synchronicity and information uncertainty proxies. The summary statistics are provided on the basis of a sample of 6043 acquisitions from 1985 to 2009 undertaken by 1883 unique bidders. Acquirers are publicly traded firms listed on the London Stock Exchange (LSE). Synchronicity is measured as the R^2 of the following regression:

$$r_{i,j,t} = \beta_{i,0} + \beta_{i,m} r_{m,t} + \beta_{i,j} r_{j,t} + \varepsilon_{i,t}$$

where $r_{i,j,t}$ is the return of bidder i in industry j at time t, $r_{m,t}$ is the market return at time t and $r_{j,t}$ is the return of industry j at time t. The lowest 33% R^2 firms are classified as low synchronicity, the highest 33% R^2 firms as high synchronicity and the rest as medium. Information uncertainty is approached with the proxy of Age. The 33% youngest acquirers are classified as high uncertainty, the 33% oldest as low uncertainty and the medium 33% as of medium uncertainty. Age is measured as the difference between the incorporation date of the firm until the announcement date of the deal. Size is also used as a proxy. The 33% smallest acquirers are classified as high uncertainty, the 33% largest as low uncertainty and the medium 33% as of medium uncertainty. Size is measured as the market capitalization (MV) of the bidding firm 20 days before the announcement date of the deal. For the Sigma proxy, the 33% highest sigma acquirers are classified as high uncertainty, the 33% lowest sigma as low uncertainty and the medium 33% as of medium uncertainty. Sigma is measured by the standard deviation of daily excess returns 200 days before the announcement date of the deal. Finally, descriptive statistics for the Trading Volume proxy which is split as the 33% less active acquirers are classified as high uncertainty, the 33% most active as low uncertainty and the medium 33% as of medium uncertainty. Trading Volume is measured as the average of the monthly trading volume of the acquirer before the announcement date of the deal.

	Overall Sample			IU by Age		IU by Size		IU by Sigma		IU by Trading Volume	
Year	**All**	**High Synchronicity**	**Low Synchronicity**	**High IU**	**Low IU**	**High IU**	**Low IU**	**High IU**	**Low IU**	**High IU**	**Low IU**
1985	9	4	2	2	0	1	6	1	5	0	0
1986	20	12	1	1	0	1	15	2	11	0	0
1987	48	28	7	11	38	21	39	19	23	0	15
1988	125	81	19	50	75	56	62	49	33	1	35
1989	164	96	27	51	89	84	73	19	171	1	49
1990	97	46	17	39	62	61	50	16	103	1	22
1991	89	39	22	35	51	60	39	17	79	6	22
1992	119	50	32	38	83	56	47	23	93	20	25
1993	159	33	63	50	114	78	61	36	110	33	44
1994	196	83	51	50	142	88	80	40	170	47	56
1995	193	44	73	50	137	67	81	14	203	82	55
1996	239	49	109	73	155	87	99	40	205	54	61
1997	303	70	123	128	157	150	120	64	223	93	75
1998	382	117	124	160	187	145	163	133	103	110	104
1999	459	106	188	181	162	156	178	258	25	136	125
2000	531	157	203	223	141	141	234	352	38	124	152
2001	404	159	104	175	102	143	138	226	23	116	105
2002	325	107	97	130	79	127	111	169	18	129	91
2003	246	81	74	87	73	90	80	153	15	85	81
2004	306	77	118	121	70	118	96	80	107	106	101
2005	405	115	160	177	100	155	134	95	180	141	126
2006	412	122	172	172	101	162	120	109	117	157	124
2007	464	191	136	187	102	164	180	105	156	168	149
2008	269	114	59	91	71	96	112	138	22	97	105
2009	79	34	34	27	18	33	22	75	0	34	19
Total	**6043**	**2015**	**2015**	**2309**	**2309**	**2340**	**2340**	**2233**	**2233**	**1741**	**1741**
Total (%)	**100.00%**	**33.34%**	**33.34%**	**38.21%**	**38.21%**	**38.72%**	**38.72%**	**36.95%**	**36.95%**	**28.81%**	**28.81%**

Table 2. Cumulative Abnormal Returns (CARs) for the Entire Sample

This table presents the Cumulative Abnormal Returns (CARs) during five days (-2, +2) surrounding the announcement for the entire sample. Abnormal returns are calculated using a modified market-adjusted model:

$$AR_{it} = R_{it} - R_{mt}$$

where R_{it} is the return on firm i at time t and R_{mt} is the value-weighted Market Index Return (FT-All Share). All acquirers are publicly traded firms listed on the London Stock Exchange (LSE). The number of bids for each category is reported below the mean return. Significance levels at 1%, 5% and 10% are represented by 'a', 'b' and 'c', respectively. The Dif (1)-(2) represents the differences in mean CARs for the five days (-2, +2) around the acquisition announcement of cash versus stock acquisitions. P-values are reported in brackets.

	All	**Cash (1)**	**Stock(2)**	**Mixed (3)**	**Dif (1)-(2)**
All	1.46%[a]	1.30%[a]	1.70%[a]	1.57%[a]	-0.40%
N	7019	3199	544	3276	
p-value	(0.000)	(0.000)	(0.002)	(0.000)	(0.482)
Private	1.69%[a]	1.13%[a]	3.60%[a]	1.82%[a]	-2.47%[b]
N	4058	1416	248	2394	
p-value	(0.000)	(0.000)	(0.000)	(0.000)	(0.012)
Public	-0.46%	0.95%[b]	-2.04%[a]	-0.89%[c]	2.99%[a]
N	713	297	208	208	
p-value	(0.113)	(0.012)	(0.001)	(0.099)	(0.000)
Subsidiary	1.65%[a]	1.54%[a]	5.20%[a]	1.44%[a]	-3.66%[a]
N	2248	1486	88	674	
p-value	(0.000)	(0.000)	(0.000)	(0.000)	(0.007)

Table 3. Cumulative Abnormal Returns (CARs) of High and Low Uncertainty and High and Low Synchronicity Acquirers by Age of the Acquiring Firm

This table presents the Cumulative Abnormal Returns (CARs) during five days (-2, +2) surrounding the announcement of high and low information uncertainty acquirers by the age of the acquirer and high and low synchronicity acquirers. Synchronicity is measured as the R^2 of the following regression:

$$r_{i,j,t} = \beta_{i,0} + \beta_{i,m} r_{m,t} + \beta_{i,j} r_{j,t} + \varepsilon_{i,t}$$

where $r_{i,j,t}$ is the return of bidder i in industry j at time t, $r_{m,t}$ is the market return at time t and $r_{j,t}$ is the return of industry j at time t. Abnormal returns are calculated using a modified market-adjusted model:

$$AR_{it} = R_{it} - R_{mt}$$

where R_{it} is the return on firm i at time t and R_{mt} is the value-weighted Market Index Return (FT-All Share). All acquirers are publicly traded firms listed on the London Stock Exchange (LSE). The 33% youngest acquirers are classified as high uncertainty, the 33% oldest as low uncertainty and the medium 33% as of medium uncertainty. Age is measured as the difference between the incorporation date of the firm until the announcement date of the deal. The lowest 33% R^2 firms are classified as low synchronicity, the highest 33% R^2 firms as high synchronicity and the rest as medium. Panel A illustrates the gains to acquirers for private target paid for with stock, Panel B for acquisitions for private target paid for with cash, Panel C for acquisitions for public target paid for with stock and Panel D for acquisitions for public target paid for with cash. Cash deals are deals financed with 100% cash and stock deals are deals financed 100% with stock. The Dif [(1)-(2)] at the last row of each panel represents the differences in mean CARs for the five days (-2, +2) around the acquisition announcement of low versus high synchronicity bidders. The Dif (3)-(4)] at the last column of each panel represents the differences in mean CARs for the five days (-2, +2) around the acquisition announcement of high versus low uncertainty bidders. The diagonal differential in each panel represent the difference in mean CARs for the five days (-2, +2) around the acquisition announcement between low synchronicity-high uncertainty versus high synchronicity-low uncertainty bidders. Significance levels at 1%, 5% and 10% are represented by ‘a’, ‘b’ and ‘c’, respectively. P-values are reported in brackets.

	Panel A: Private Targets paid for with Stock					Panel B: Private Targets paid for with Cash				
	All	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**	**All**	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**
All	3.80%[a]	5.08%[a]	3.00%[c]	1.93%	3.15%	1.22%[a]	1.64%[a]	1.56%[a]	0.64%[a]	1.00%[b]
p-value	(0.000)	(0.005)	(0.065)	(0.163)	(0.160)	(0.000)	(0.000)	(0.000)	(0.003)	(0.037)
N	226	106	83	37		1201	351	379	471	
LowSynchr (1)	5.75%[a]	**6.32%[c]**	5.65%[c]	4.20%[b]	2.11%	1.83%[a]	**2.43%[a]**	2.09%[b]	0.89%[b]	1.54%[c]
p-value	(0.003)	(0.062)	(0.060)	(0.030)	(0.568)	(0.000)	(0.003)	(0.010)	(0.032)	(0.087)
N	80	36	33	11		371	131	123	117	
MediumSynchr	3.87%[b]	6.09%[b]	1.48%	1.72%	4.36%	1.38%[a]	2.02%[a]	0.95%	1.18%[b]	0.85%
p-value	(0.030)	(0.026)	(0.599)	(0.637)	(0.334)	(0.000)	(0.002)	(0.121)	(0.011)	(0.280)
N	86	44	32	10		379	124	123	132	
HighSynchr (2)	1.10%	1.65%	0.84%	**0.49%**	1.16%	0.59%[b]	0.06%	1.64%[a]	**0.19%**	-0.13%
p-value	(0.500)	(0.637)	(0.533)	(0.807)	(0.772)	(0.021)	(0.939)	(0.000)	(0.517)	(0.873)
N	60	26	18	16		451	96	133	222	
Dif (1)-(2)	4.65%[c]	4.67%	4.81%	3.71%	**5.83%**	1.24%[b]	2.37%[c]	0.45%	0.70%	**2.24%[a]**
p-value	(0.064)	(0.331)	(0.138)	(0.161)	(0.134)	(0.010)	(0.032)	(0.618)	(0.164)	(0.009)
	Panel C: Public Targets paid for with Stock					**Panel D: Public Targets paid for with Cash**				
	All	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**	**All**	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**
All	-2.35%[a]	-3.87%[a]	-2.25%[b]	-0.28%	-3.58%[b]	1.14%[a]	2.09%[b]	0.78%	0.94%[c]	1.15%
p-value	(0.001)	(0.005)	(0.011)	(0.786)	(0.035)	(0.007)	(0.039)	(0.356)	(0.065)	(0.305)
N	187	75	60	52		253	56	86	111	
LowSynchr(1)	-2.80%[b]	**-5.89%[a]**	-1.23%	-0.14%	-5.75%	2.27%[c]	**3.85%[c]**	1.85%	0.84%	3.01%
p-value	(0.016)	(0.003)	(0.403)	(0.965)	(0.117)	(0.062)	(0.085)	(0.461)	(0.492)	(0.223)
N	62	24	25	13		45	16	16	13	
MediumSynchr	-1.96%[c]	-2.30%	-1.95%	-1.43%	-0.87%	0.41%	0.93%	-0.69%	1.47%	-0.54%
p-value	(0.080)	(0.315)	(0.145)	(0.376)	(0.753)	(0.659)	(0.592)	(0.661)	(0.326)	(0.813)
N	68	29	21	18		72	18	31	23	
HighSynchr(2)	-2.32%[c]	-3.73%	-4.52%[b]	**0.61%**	-4.34%	1.16%[b]	1.76%	1.51%	**0.80%**	0.96%
p-value	(0.072)	(0.201)	(0.021)	(0.618)	(0.169)	(0.018)	(0.248)	(0.131)	(0.166)	(0.551)
N	57	22	14	21		136	22	39	75	
Dif (1)-(2)	-0.48%	-2.16%	3.29%	-0.75%	**-6.50%[a]**	1.11%	2.09%	0.34%	0.04%	**3.05%**
p-value	(0.779)	(0.523)	(0.152)	(0.821)	(0.005)	(0.389)	(0.421)	(0.899)	(0.975)	(0.176)

Table 4. Cumulative Abnormal Returns (CARs) of High and Low Uncertainty and High and Low Synchronicity Acquirers by Size of the Acquiring Firm

This table presents the Cumulative Abnormal Returns (CARs) during five days (-2, +2) surrounding the announcement of high and low information uncertainty acquirers by the age of the acquirer and high and low synchronicity acquirers. Synchronicity is measured as the R^2 of the following regression:

$$r_{i,j,t} = \beta_{i,0} + \beta_{i,m}\, r_{m,t} + \beta_{i,j}\, r_{j,t} + \varepsilon_{i,t}$$

where $r_{i,j,t}$ is the return of bidder i in industry j at time t, $r_{m,t}$ is the market return at time t and $r_{j,t}$ is the return of industry j at time t. Abnormal returns are calculated using a modified market-adjusted model:

$$AR_{it} = R_{it} - R_{mt}$$

where R_{it} is the return on firm i at time t and R_{mt} is the value-weighted Market Index Return (FT-All Share). All acquirers are publicly traded firms listed on the London Stock Exchange (LSE). The 33% smallest acquirers are classified as high uncertainty, the 33% largest as low uncertainty and the medium 33% as of medium uncertainty. Size is measured as the market capitalization (MV) of the bidding firm 20 days before the announcement date of the deal. The lowest 33% R^2 firms are classified as low synchronicity, the highest 33% R^2 firms as high synchronicity and the rest as medium. Panel A illustrates the gains to acquirers for private target paid for with stock, Panel B for acquisitions for private target paid for with cash, Panel C for acquisitions for public target paid for with stock and Panel D for acquisitions for public target paid for with cash. Cash deals are deals financed with 100% cash and stock deals are deals financed 100% with stock. The Dif [(1)-(2)] at the last row of each panel represents the differences in mean CARs for the five days (-2, +2) around the acquisition announcement of low versus high synchronicity bidders. The Dif (3)-(4)] at the last column of each panel represents the differences in mean CARs for the five days (-2, +2) around the acquisition announcement of high versus low uncertainty bidders. The diagonal differential in each panel represent the difference in mean CARs for the five days (-2, +2) around the acquisition announcement between low synchronicity-high uncertainty versus high synchronicity-low uncertainty bidders. Significance levels at 1%, 5% and 10% are represented by ‘a’, ‘b’ and ‘c’, respectively. P-values are reported in brackets.

	Panel A: Private Targets paid for with Stock					Panel B: Private Targets paid for with Cash				
	All	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**	**All**	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**
All	3.80%[a]	5.51%[a]	1.80%	1.44%	4.06%[c]	1.22%[a]	2.66%[a]	1.02%[a]	0.46%[c]	2.20%[a]
p-value	(0.000)	(0.002)	(0.213)	(0.265)	(0.057)	(0.000)	(0.000)	(0.000)	(0.056)	(0.000)
N	226	126	55	45		1201	313	408	480	
LowSynchr (1)	5.75%[a]	**6.57%[b]**	2.66%	5.91%[c]	0.66%	1.83%[a]	**3.02%[a]**	1.36%[a]	0.04%	2.98%[a]
p-value	(0.003)	(0.011)	(0.265)	(0.055)	(0.844)	(0.000)	(0.000)	(0.002)	(0.948)	(0.004)
N	80	59	16	5		371	156	152	63	
MediumSynchr	3.87%[b]	4.48%	3.79%	1.22%	3.26%	1.38%[a]	2.78%[a]	1.08%[b]	0.58%	2.21%[b]
p-value	(0.030)	(0.100)	(0.172)	(0.402)	(0.284)	(0.000)	(0.000)	(0.024)	(0.260)	(0.016)
N	86	51	24	11		379	104	151	124	
HighSynchr (2)	1.10%	4.87%	-2.29%	**0.76%**	4.11%	0.59%[b]	1.37%	0.44%	**0.50%**	0.87%
p-value	(0.500)	(0.327)	(0.140)	(0.686)	(0.435)	(0.021)	(0.205)	(0.321)	(0.100)	(0.435)
N	60	16	15	29		451	53	105	293	
Dif (1)-(2)	4.65%[c]	1.70%	4.94%[c]	5.15%	**5.81%[b]**	1.24%[b]	1.65%	0.92%	-0.46%	**2.52%[a]**
p-value	(0.064)	(0.757)	(0.081)	(0.102)	(**0.065**)	(0.010)	(0.226)	(0.137)	(0.499)	(**0.005**)
	Panel C: Public Targets paid for with Stock					**Panel D: Public Targets paid for with Cash**				
	All	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**	**All**	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**
All	-2.35%[a]	-3.82%[a]	-2.03%[a]	-0.74%	-3.08%[c]	1.14%[a]	3.25%[b]	1.27%	0.73%	2.52%[c]
p-value	(0.001)	(0.005)	(0.007)	(0.569)	(0.099)	(0.007)	(0.024)	(0.128)	(0.150)	(0.091)
N	187	71	64	52		253	31	49	173	
LowSynchr(1)	-2.80%[b]	**-4.10%[b]**	-2.87%[b]	1.14%	-5.24%	2.27%[c]	**4.23%[b]**	1.32%	1.56%	2.68%
p-value	(0.016)	(0.035)	(0.015)	(0.768)	(0.230)	(0.062)	(0.044)	(0.425)	(0.470)	(0.351)
N	62	29	23	10		45	13	11	21	
MediumSynchr	-1.96%[c]	-2.71%	-1.24%	-1.56%	-1.16%	0.41%	2.63%	1.41%	-1.15%	3.78%
p-value	(0.080)	(0.177)	(0.319)	(0.631)	(0.758)	(0.659)	(0.377)	(0.279)	(0.392)	(0.248)
N	68	31	27	10		72	12	26	34	
HighSynchr(2)	-2.32%[c]	-6.18%	-2.15%	**-1.08%**	-5.10%	1.16%[b]	2.36%	0.93%	**1.12%[b]**	1.24%
p-value	(0.072)	(0.194)	(0.207)	(0.482)	(0.297)	(0.018)	(0.180)	(0.519)	(0.038)	(0.469)
N	57	11	14	32		136	6	12	118	
Dif (1)-(2)	-0.48%	2.08%	-0.72%	2.21%	**-3.03%**	1.11%	1.87%	0.40%	0.43%	**3.11%**
p-value	(0.779)	(0.673)	(0.714)	(0.594)	(**0.210**)	(0.389)	(0.450)	(0.854)	(0.845)	(**0.135**)

Table 5. Cumulative Abnormal Returns (CARs) of High and Low Uncertainty and High and Low Synchronicity Acquirers by Sigma of the Acquiring Firm

This table presents the Cumulative Abnormal Returns (CARs) during five days (-2, +2) surrounding the announcement of high and low information uncertainty acquirers by the age of the acquirer and high and low synchronicity acquirers. Synchronicity is measured as the R^2 of the following regression:

$$r_{i,j,t} = \beta_{i,0} + \beta_{i,m}\, r_{m,t} + \beta_{i,j}\, r_{j,t} + \varepsilon_{i,t}$$

where $r_{i,j,t}$ is the return of bidder i in industry j at time t, $r_{m,t}$ is the market return at time t and $r_{j,t}$ is the return of industry j at time t. Abnormal returns are calculated using a modified market-adjusted model:

$$AR_{it} = R_{it} - R_{mt}$$

where R_{it} is the return on firm i at time t and R_{mt} is the value-weighted Market Index Return (FT-All Share). All acquirers are publicly traded firms listed on the London Stock Exchange (LSE). The 33% highest sigma acquirers are classified as high uncertainty, the 33% lowest sigma as low uncertainty and the medium 33% as of medium uncertainty. Sigma is measured by the standard deviation of daily excess returns 200 days before the announcement date of the deal. The lowest 33% R^2 firms are classified as low synchronicity, the highest 33% R^2 firms as high synchronicity and the rest as medium. Panel A illustrates the gains to acquirers for private target paid for with stock, Panel B for acquisitions for private target paid for with cash, Panel C for acquisitions for public target paid for with stock and Panel D for acquisitions for public target paid for with cash. Cash deals are deals financed with 100% cash and stock deals are deals financed 100% with stock. The Dif [(1)-(2)] at the last row of each panel represents the differences in mean CARs for the five days (-2, +2) around the acquisition announcement of low versus high synchronicity bidders. The Dif (3)-(4)] at the last column of each panel represents the differences in mean CARs for the five days (-2, +2) around the acquisition announcement of high versus low uncertainty bidders. The diagonal differential in each panel represent the difference in mean CARs for the five days (-2, +2) around the acquisition announcement between low synchronicity-high uncertainty versus high synchronicity-low uncertainty bidders. Significance levels at 1%, 5% and 10% are represented by ‘a’, ‘b’ and ‘c’, respectively. P-values are reported in brackets.

	Panel A: Private Targets paid for with Stock					Panel B: Private Targets paid for with Cash				
	All	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**	**All**	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**
All	4.04%[a]	4.30%[a]	4.49%[a]	3.04%	1.26%	1.17%[a]	1.77%[a]	1.04%[a]	0.74%[a]	1.03%[c]
p-value	(0.000)	(0.006)	(0.006)	(0.134)	(0.620)	(0.000)	(0.000)	(0.000)	(0.000)	(0.054)
N	219	131	37	51		1168	360	429	379	
LowSynchr (1)	5.89%[a]	**6.57%[c]**	6.56%[a]	3.67%	2.90%	1.74%[a]	**2.75%[b]**	1.50%[a]	0.94%[b]	1.81%
p-value	(0.004)	(0.046)	(0.003)	(0.145)	(0.471)	(0.000)	(0.014)	(0.001)	(0.019)	(0.126)
N	77	45	14	18		360	116	137	107	
MediumSynchr	4.00%[b]	2.99%	6.25%	6.33%	-3.34%	1.26%[a]	2.19%[a]	0.88%[c]	0.77%[b]	1.42%[c]
p-value	(0.027)	(0.126)	(0.137)	(0.342)	(0.625)	(0.000)	(0.005)	(0.063)	(0.038)	(0.096)
N	85	59	12	14		372	118	140	114	
HighSynchr (2)	1.60%	3.39%	-0.06%	**0.03%**	3.36%	0.61%[b]	0.47%	0.76%[c]	**0.58%[b]**	-0.11%
p-value	(0.332)	(0.315)	(0.966)	(0.982)	(0.350)	(0.019)	(0.488)	(0.071)	(0.023)	(0.873)
N	57	27	11	19		436	126	152	158	
Dif (1)-(2)	4.28%[c]	3.18%	6.62%[a]	3.64%	**6.54%[c]**	1.13%[b]	2.28%[c]	0.74%	0.36%	**2.17%[c]**
p-value	(0.097)	(0.492)	(0.006)	(0.193)	(**0.063**)	(0.021)	(0.079)	(0.227)	(0.443)	(**0.058**)
	Panel C: Public Targets paid for with Stock					**Panel D: Public Targets paid for with Cash**				
	All	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**	**All**	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**
All	-2.43%[a]	-4.69%[a]	-0.89%	-0.34%	-4.35%[a]	1.15%[a]	2.15%[b]	0.89%	0.48%	1.67%
p-value	(0.001)	(0.001)	(0.323)	(0.712)	(0.007)	(0.008)	(0.041)	(0.184)	(0.305)	(0.145)
N	181	80	53	48		250	80	80	90	
LowSynchr(1)	-2.82%[b]	**-5.52%[a]**	-0.30%	-1.40%	-4.12%	2.27%[c]	**5.14%[b]**	-0.02%	1.16%	3.98%
p-value	(0.019)	(0.008)	(0.880)	(0.475)	(0.136)	(0.062)	(0.045)	(0.993)	(0.504)	(0.182)
N	60	26	20	14		45	17	15	13	
MediumSynchr	-2.12%[c]	-3.93%[c]	-1.02%	0.06%	-3.99%[c]	0.42%	-0.89%	2.21%	0.10%	-0.99%
p-value	(0.060)	(0.064)	(0.373)	(0.962)	(0.098)	(0.650)	(0.620)	(0.127)	(0.946)	(0.664)
N	67	33	13	21		71	28	24	19	
HighSynchr(2)	-2.37%[c]	-4.86%	-1.41%	**0.15%**	-5.01%	1.15%[b]	3.14%[b]	0.44%	**0.46%**	2.68%[c]
p-value	(0.079)	(0.110)	(0.267)	(0.941)	(0.168)	(0.020)	(0.035)	(0.585)	(0.300)	(0.080)
N	54	21	20	13		134	35	41	58	
Dif (1)-(2)	-0.44%	-0.66%	1.11%	-1.56%	**-5.67%[c]**	1.12%	2.01%	-0.46%	0.70%	**4.69%[c]**
p-value	(0.802)	(0.851)	(0.632)	(0.582)	(**0.051**)	(0.385)	(0.474)	(0.807)	(0.692)	(**0.068**)

Table 6. Cumulative Abnormal Returns (CARs) of High and Low Uncertainty and High and Low Synchronicity Acquirers by Trading Volume of the Acquiring Firm

This table presents the Cumulative Abnormal Returns (CARs) during five days (-2, +2) surrounding the announcement of high and low information uncertainty acquirers by the age of the acquirer and high and low synchronicity acquirers. Synchronicity is measured as the R^2 of the following regression:

$$r_{i,j,t} = \beta_{i,0} + \beta_{i,m} r_{m,t} + \beta_{i,j} r_{j,t} + \varepsilon_{i,t}$$

where $r_{i,j,t}$ is the return of bidder i in industry j at time t, $r_{m,t}$ is the market return at time t and $r_{j,t}$ is the return of industry j at time t. Abnormal returns are calculated using a modified market-adjusted model:

$$AR_{it} = R_{it} - R_{mt}$$

where R_{it} is the return on firm i at time t and R_{mt} is the value-weighted Market Index Return (FT-All Share). All acquirers are publicly traded firms listed on the London Stock Exchange (LSE). The 33% less active acquirers are classified as high uncertainty, the 33% most active as low uncertainty and the medium 33% as of medium uncertainty. Trading Volume is measured as the average of the monthly trading volume of the acquirer before the announcement date of the deal. The lowest 33% R^2 firms are classified as low synchronicity, the highest 33% R^2 firms as high synchronicity and the rest as medium. Panel A illustrates the gains to acquirers for private target paid for with stock, Panel B for acquisitions for private target paid for with cash, Panel C for acquisitions for public target paid for with stock and Panel D for acquisitions for public target paid for with cash. Cash deals are deals financed with 100% cash and stock deals are deals financed 100% with stock. The Dif [(1)-(2)] at the last row of each panel represents the differences in mean CARs for the five days (-2, +2) around the acquisition announcement of low versus high synchronicity bidders. The Dif (3)-(4)] at the last column of each panel represents the differences in mean CARs for the five days (-2, +2) around the acquisition announcement of high versus low uncertainty bidders. The diagonal differential in each panel represent the difference in mean CARs for the five days (-2, +2) around the acquisition announcement between low synchronicity-high uncertainty versus high synchronicity-low uncertainty bidders. Significance levels at 1%, 5% and 10% are represented by ‘a’, ‘b’ and ‘c’, respectively. P-values are reported in brackets.

	Panel A: Private Targets paid for with Stock					Panel B: Private Targets paid for with Cash				
	All	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**	**All**	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**
All	4.02%[a]	3.77%[b]	5.15%[c]	3.34%[c]	0.43%	1.27%[a]	2.43%[a]	1.07%[a]	0.57%[b]	1.87%[a]
p-value	(0.002)	(0.049)	(0.083)	(0.060)	(0.868)	(0.000)	(0.000)	(0.002)	(0.028)	(0.001)
N	162	87	40	35		977	284	324	369	
LowSynchr (1)	5.51%[b]	**4.23%**	9.73%	5.94%	-1.71%	2.12%[a]	**2.95%[a]**	1.56%[b]	1.15%[c]	1.80%[c]
p-value	(0.021)	(0.103)	(0.209)	(0.172)	(0.705)	(0.000)	(0.000)	(0.010)	(0.069)	(0.071)
N	54	38	11	5		299	137	107	55	
MediumSynchr	3.80%[c]	4.83%	0.56%	5.37%[c]	-0.54%	1.28%[a]	2.24%[a]	0.84%	0.54%	1.70%[b]
p-value	(0.072)	(0.172)	(0.804)	(0.071)	(0.902)	(0.000)	(0.002)	(0.136)	(0.289)	(0.049)
N	68	38	18	12		299	109	116	74	
HighSynchr (2)	2.38%	-1.50%	8.07%	**1.27%**	-2.77%	0.60%	1.08%	0.81%	**0.44%**	0.64%
p-value	(0.306)	(0.475)	(0.260)	(0.639)	(0.414)	(0.036)	(0.324)	(0.185)	(0.187)	(0.574)
N	40	11	11	18		379	38	101	240	
Dif (1)-(2)	3.13%	5.73%[c]	1.66%	4.67%	**2.96%**	1.52%[a]	1.87%	0.74%	0.71%	**2.52%[a]**
p-value	(0.338)	(0.084)	(0.869)	(0.321)	(**0.423**)	(0.003)	(0.163)	(0.382)	(0.313)	(**0.003**)
	Panel C: Public Targets paid for with Stock					**Panel D: Public Targets paid for with Cash**				
	All	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**	**All**	**HighIU (3)**	**MediumIU**	**LowIU (4)**	**Dif(3)-(4)**
All	-2.79%[a]	-6.85%[a]	-2.02%[c]	0.01%	-6.86%[a]	1.12%[b]	3.14%[b]	0.63%	0.76%	2.38%
p-value	(0.002)	(0.001)	(0.093)	(0.994)	(0.005)	(0.017)	(0.038)	(0.466)	(0.184)	(0.135)
N	130	40	44	46		217	36	52	129	
LowSynchr(1)	-3.00%[b]	**-6.48%[b]**	-1.81%	2.00%	-8.47%	2.22%[c]	**2.29%**	3.22%	0.87%	1.43%
p-value	(0.036)	(0.012)	(0.217)	(0.655)	(0.108)	(0.086)	(0.338)	(0.170)	(0.677)	(0.647)
N	45	18	19	8		41	14	15	12	
MediumSynchr	-2.75%[c]	-5.34%[c]	-3.18%	1.87%	-7.21%	0.58%	4.06%	-0.90%	-0.49%	4.55%
p-value	(0.098)	(0.093)	(0.118)	(0.606)	(0.132)	(0.568)	(0.134)	(0.472)	(0.737)	(0.135)
N	44	17	16	11		61	16	18	27	
HighSynchr(2)	-2.59%	-13.30%	-0.40%	**-1.33%**	-11.96%	1.02%[c]	2.67%	0.04%	**1.12%[c]**	1.54%
p-value	(0.132)	(0.110)	(0.918)	(0.451)	(0.141)	(0.058)	(0.216)	(0.970)	(0.084)	(0.466)
N	41	5	9	27		115	6	19	90	
Dif (1)-(2)	-0.41%	6.82%	-1.42%	3.33%	**-5.14%[c]**	1.19%	-0.37%	3.19%	-0.25%	**1.17%**
p-value	(0.849)	(0.368)	(0.729)	(0.488)	(**0.085**)	(0.386)	(0.902)	(0.203)	(0.907)	(**0.632**)

Table 7. Regressions of CARs on Information Uncertainty, Synchronicity and Deal Features

This table presents regression estimates of the acquirer's five-day cumulative abnormal return controlling for information uncertainty and synchronicity of the bidder's stock price. In Panel A, the 33% youngest acquirers are classified as high uncertainty, the 33% oldest as low uncertainty and the medium 33% as of medium uncertainty. Age is measured as the difference between the incorporation date of the firm until the announcement date of the deal. In Panel B, the 33% smallest acquirers are classified as high uncertainty, the 33% largest as low uncertainty and the medium 33% as of medium uncertainty. Size is measured as the market capitalization (MV) of the bidding firm 20 days before the announcement date of the deal. In Panel C, the 33% highest sigma acquirers are classified as high uncertainty, the 33% lowest sigma as low uncertainty and the medium 33% as of medium uncertainty. Sigma is measured by the standard deviation of daily excess returns 200 days before the announcement date of the deal. In Panel D, the 33% less active acquirers are classified as high uncertainty, the 33% most active as low uncertainty and the medium 33% as of medium uncertainty. Trading Volume is measured as the average of the monthly trading volume of the acquirer before the announcement date of the deal. Synchronicity is measured as the R^2 of the following regression:

$$r_{i,j,t} = \beta_{i,0} + \beta_{i,m}\, r_{m,t} + \beta_{i,j}\, r_{j,t} + \varepsilon_{i,t}$$

where $r_{i,j,t}$ is the return of bidder i in industry j at time t, $r_{m,t}$ is the market return at time t and $r_{j,t}$ is the return of industry j at time t. The lowest 33% R^2 firms are classified as low synchronicity, the highest 33% R^2 firms as high synchronicity and the rest as medium.

HighIU dummy takes the value of 1 of the bid was announced by a high information uncertainty bidder according to the four proxies, and zero otherwise. The HsHiu, HsLiu, LsHiu, LsLiu takes the value of 1 is the deal belong to the high (low) information uncertainty (synchronicity) group respectively. Diversifying deals is a dummy that takes the value of 1 when the acquirer's two-digit SIC code is different from that of the target and 0 otherwise. Bidder's market-to-book is measured by the bidder's market value a month before the announcement of the deal divided by its net book value of assets; a deal's relative size is the ratio between target and bidder size. Domestic deals dummy takes the value of 1 for acquisitions of UK firms and zero otherwise. Finally, other explanatory variables include: the acquirer's lagged excess return for 180 days prior to the bid's announcement; and the market portfolio return (FT-All Share) for the same 180-day period prior to the announcement. P-values are reported in square brackets under the coefficients. Significance levels at 1%, 5% and 10% are represented by 'a', 'b' and 'c', respectively.

	Panel A: Age								Panel B: Size							
	PrivateStock				PublicStock				PrivateStock				PublicStock			
CARs	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
HighIU	**0.031**				**-0.024**				**0.051**[b]				**-0.02**			
	(0.162)				(0.146)				(0.015)				(0.165)			
HsHiu				**-0.013**				**0.006**				**0.058**				**-0.022**
				(0.756)				(0.869)				(0.331)				(0.660)
HsLiu (Low Sentiment)			**-0.048**[c]	**-0.046**[c]			**0.029**[c]	**0.025**			**-0.047**[b]	**-0.032**			**0.020**	**0.014**
			(0.053)	(0.073)			(0.057)	(0.106)			(0.039)	(0.170)			(0.235)	(0.409)
LsHiu (High Sentiment)		**0.032**		**0.026**		**-0.054**[b]		**-0.049**[b]		**0.035**		**0.037**		**-0.035**[c]		**-0.032**
		(0.403)		(0.513)		(0.015)		(0.026)		(0.231)		(0.224)		(0.098)		(0.137)
LsLiu				**-0.012**				**0.011**				**0.063**				**0.022**
				(0.630)				(0.705)				(0.165)				(0.567)
M/B	**-0.001**	**-0.001**	**-0.001**	**-0.001**	**-0.002**[c]	**-0.002**[c]	**-0.002**[b]	**-0.002**	**-0.001**	**-0.001**	**-0.001**[c]	**-0.001**[c]	**-0.003**[b]	**-0.003**[b]	**-0.003**[b]	**-0.003**[b]
	(0.138)	(0.131)	(0.108)	(0.116)	(0.078)	(0.086)	(0.029)	(0.106)	(0.200)	(0.148)	(0.094)	(0.056)	(0.022)	(0.014)	(0.035)	(0.020)
Relative Size	**-0.001**	**-0.002**	**-0.002**	**-0.002**	**-0.005**	**-0.005**	**-0.005**	**-0.005**	**-0.002**	**-0.002**	**-0.002**	**-0.002**	**-0.004**	**-0.005**	**-0.005**	**-0.005**
	(0.226)	(0.379)	(0.352)	(0.348)	(0.232)	(0.257)	(0.268)	(0.281)	(0.134)	(0.364)	(0.327)	(0.249)	(0.306)	(0.236)	(0.266)	(0.235)
Domestic deals	**-0.006**	**-0.007**	**-0.009**	**-0.009**	**-0.039**	**-0.040**[c]	**-0.038**	**-0.040**[c]	**-0.018**	**-0.01**	**-0.014**	**-0.017**	**-0.038**	**-0.044**[c]	**-0.039**	**-0.041**[c]
	(0.773)	(0.741)	(0.684)	(0.691)	(0.114)	(0.089)	(0.112)	(0.098)	(0.398)	(0.649)	(0.534)	(0.432)	(0.113)	(0.070)	(0.101)	(0.093)
Diversifying	**-0.001**	**0.001**	**-0.001**	**0.001**	**-0.001**	**-0.005**	**0.000**	**-0.005**	**-0.004**	**-0.001**	**-0.002**	**-0.004**	**0.003**	**0.002**	**0.000**	**0.003**
	(0.976)	(0.967)	(0.981)	(0.952)	(0.948)	(0.735)	(0.998)	(0.715)	(0.852)	(0.948)	(0.913)	(0.869)	(0.850)	(0.890)	(0.991)	(0.861)
FTALLASH$_{(-180,-3)}$	**0.101**	**0.092**	**0.085**	**0.089**	**0.157**[a]	**0.172**[a]	**0.154**[a]	**0.173**[a]	**0.085**	**0.081**	**0.08**	**0.075**	**0.146**[a]	**0.157**[a]	**0.156**[a]	**0.148**[a]
	(0.141)	(0.199)	(0.242)	(0.216)	(0.006)	(0.002)	(0.007)	(0.001)	(0.222)	(0.260)	(0.266)	(0.298)	(0.008)	(0.005)	(0.006)	(0.004)
R_i -$R_{m(-180,-3)}$	**0.000**	**0.001**	**0.000**	**0.000**	**-0.001**	**0.000**	**-0.002**	**0.000**	**0.001**	**0.000**	**0.001**	**0.001**	**-0.002**	**-0.002**	**-0.002**	**-0.002**
	(0.992)	(0.913)	(0.968)	(0.928)	(0.840)	(0.923)	(0.754)	(0.997)	(0.852)	(0.926)	(0.887)	(0.826)	(0.479)	(0.353)	(0.670)	(0.593)
Intercept	**0.034**	**0.044**[b]	**0.056**[a]	**0.053**[a]	**0.025**	**0.026**	**0.013**	**0.02**	**0.031**	**0.044**[b]	**0.063**[a]	**0.051**[b]	**0.023**	**0.028**	**0.014**	**0.023**
	(0.104)	(0.016)	(0.006)	(0.010)	(0.285)	(0.271)	(0.574)	(0.389)	(0.122)	(0.024)	(0.003)	(0.012)	(0.305)	(0.243)	(0.545)	(0.327)
N	222	217	217	217	178	177	177	177	222	217	217	217	178	177	177	177
Adj. R^2	4.58%	4.23%	4.33%	4.80%	13.34%	15.41%	13.04%	16.15%	5.97%	4.64%	4.70%	6.29%	12.87%	13.89%	12.71%	14.81%

Table 7-continued

	Panel C: Sigma								Panel D: Trading Volume							
	PrivateStock				PublicStock				PrivateStock				PublicStock			
CARs	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
HighIU	**0.023**				**-0.032[b]**				**0.013**				**-0.067[a]**			
	(0.342)				(0.044)				(0.659)				(0.001)			
HsHiu				**0.003**				**-0.004**				**-0.047**				**-0.091**
				(0.931)				(0.906)				(0.306)				(0.203)
HsLiu (Low Sentiment)			**-0.053[a]**	**-0.045[b]**			**0.015**	**0.008**			**-0.049**	**-0.053**			**0.033**	**0.021**
			(0.002)	(0.015)			(0.526)	(0.718)			(0.113)	(0.117)			(0.109)	(0.300)
LsHiu (High Sentiment)		**0.044**		**0.039**		**-0.042[c]**		**-0.042[c]**		**0.008**		**-0.004**		**-0.064[b]**		**-0.060[b]**
		(0.240)		(0.314)		(0.061)		(0.058)		(0.813)		(0.905)		(0.011)		(0.021)
LsLiu				**-0.011**				**-0.006**				**0.010**				**0.048**
				(0.703)				(0.786)				(0.843)				(0.340)
M/B	**-0.001**	**-0.001[c]**	**-0.001**	**-0.001[c]**	**-0.002[b]**	**-0.003[c]**	**-0.003[b]**	**-0.003[c]**	**-0.001[c]**	**-0.001[c]**	**-0.001[c]**	**-0.001[c]**	**-0.005[a]**	**-0.005[a]**	**-0.005[a]**	**-0.005[a]**
	(0.101)	(0.080)	(0.103)	(0.074)	(0.045)	(0.063)	(0.027)	(0.067)	(0.080)	(0.084)	(0.074)	(0.080)	(0.001)	(0.000)	(0.001)	(0.000)
Relative Size	**-0.001**	**-0.002**	**-0.002**	**-0.002**	**-0.005**	**-0.006**	**-0.005**	**-0.006**	**-0.001**	**-0.002**	**-0.002**	**-0.002**	**-0.005**	**-0.005**	**-0.005**	**-0.005**
	(0.250)	(0.369)	(0.360)	(0.360)	(0.282)	(0.241)	(0.257)	(0.240)	(0.189)	(0.330)	(0.295)	(0.421)	(0.228)	(0.318)	(0.361)	(0.315)
Domestic deals	**-0.005**	**-0.006**	**-0.009**	**-0.007**	**-0.047[c]**	**-0.045[c]**	**-0.040[c]**	**-0.045[c]**	**-0.02**	**-0.015**	**-0.017**	**-0.016**	**-0.051[b]**	**-0.0603[b]**	**-0.056[b]**	**-0.058[b]**
	(0.819)	(0.782)	(0.686)	(0.770)	(0.055)	(0.057)	(0.093)	(0.056)	(0.491)	(0.590)	(0.520)	(0.586)	(0.046)	(0.019)	(0.042)	(0.034)
Diversifying	**-0.004**	**-0.005**	**-0.003**	**-0.006**	**0.003**	**-0.004**	**-0.001**	**-0.004**	**-0.013**	**-0.013**	**-0.013**	**-0.014**	**-0.003**	**0.000**	**0.000**	**-0.005**
	(0.858)	(0.823)	(0.880)	(0.777)	(0.855)	(0.774)	(0.970)	(0.773)	(0.618)	(0.645)	(0.622)	(0.626)	(0.853)	(0.990)	(0.992)	(0.794)
$FTALLASH_{(-180,-3)}$	**0.106**	**0.104**	**0.086**	**0.108**	**0.117[b]**	**0.156[a]**	**0.151[a]**	**0.152[a]**	**0.112**	**0.115**	**0.119**	**0.123**	**0.172[a]**	**0.189[a]**	**0.180[b]**	**0.163[b]**
	(0.168)	(0.173)	(0.234)	(0.162)	(0.040)	(0.005)	(0.008)	(0.008)	(0.181)	(0.202)	(0.179)	(0.175)	(0.010)	(0.009)	(0.018)	(0.023)
$R_i - R_{m(-180,-3)}$	**0.000**	**0.001**	**0.000**	**0.000**	**-0.001**	**-0.001**	**-0.002**	**-0.001**	**0.000**	**0.000**	**0.000**	**0.000**	**-0.002**	**-0.002**	**-0.001**	**-0.004**
	(0.998)	(0.919)	(0.977)	(0.965)	(0.951)	(0.857)	(0.680)	(0.871)	(0.990)	(0.981)	(0.932)	(0.928)	(0.772)	(0.271)	(0.802)	(0.281)
Intercept	**0.036**	**0.043[b]**	**0.059[a]**	**0.050[b]**	**0.038**	**0.031**	**0.018**	**0.032**	**0.063[a]**	**0.065[a]**	**0.075[a]**	**0.078[a]**	**0.054[b]**	**0.052[c]**	**0.029**	**0.047[c]**
	(0.137)	(0.029)	(0.005)	(0.023)	(0.112)	(0.185)	(0.424)	(0.179)	(0.008)	(0.004)	(0.002)	(0.002)	(0.038)	(0.051)	(0.283)	(0.068)
N	222	217	217	217	177	176	176	176	162	158	158	158	125	125	125	125
Adj. R^2	4.10%	4.91%	4.60%	5.57%	14.36%	14.49%	12.29%	14.60%	5.38%	5.44%	6.27%	6.79%	23.67%	19.49%	16.54%	24.12%