UK Mergers and Value Creation

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Abstract

The question still remains unanswered as to whether or not mergers create value. Using an intuitive methodological approach, we control for the performance of successful bidders had their deals not have completed through the creation of a sample of deals which fail for exogenous reasons. This work uses this approach to examine value creation via market-timing in the UK market and finds, in strong contrast to the US, that while mergers generate short-term gains for bidders, they do not remain consistent in the long-run period. Behavioural finance argues that mergers create value through the use of overvalued equity to buy less overvalued target firm assets. We reason that UK mergers do not create value in this way due to the high preference for cash-payments. The significant reversal witnessed renders the question of what drives UK mergers open once again. Furthermore, in robust analysis, after controlling specifically for the valuation of the firm, market-timing in its strictest sense does not prove useful for UK bidders due to the low use of equity-financing. Finally, the quality of mergers conducted is better when the market is valued low, most likely due to a more careful acquisition strategy being adopted. Thus it is recommended that due diligence be conducted at all times.

I. Introduction

Are mergers and acquisitions wealth-maximising ventures? Whilst this topic has been explored over the years, no definitive answer has yet been concluded. Yet merger activity continues to rise year-on-year. In 2011, more than 36,616 deals were completed worldwide totalling £1.43 trillion despite the economic difficulties engulfing the global markets (Thomson One Banker SDC). Despite such large figures, firms remain plagued by integration difficulties, poor operations and falling stock prices post-merger. The literature shows that bidding firms may or may not gain from acquiring another firm (Mueller, 1985; Loughran and Vijh, 1997; Savor and Lu, 2009) with the widely-debated market-timing hypothesis as the key justification for merger activity (Shleifer and Vishny, 2003). In particular, the returns for bidders are shown to be dependent upon a range of factors, most notably the methodological approach chosen and the characteristics of the bidder's domestic country.

This paper extends this previous literature through reassessing whether or not UK mergers create value using a new comparative assessment approach. At a superficial level, a simple comparative assessment approach between deals which succeed and those which fail may at first appear sufficient for testing the value creation in mergers. However, there are deals which fail for endogenous reasons. If the bidder experiences a news revelation for example, similar to the News International scandal during 2011, then the deal can fall through as a direct result. News International had every intention to acquire BSkyB but because of the media coverage of the phone-hacking scandal as authorised by leading executives at the firm, the bidder felt a direct impact within the share price of the firm. This event caused the bidder to withdraw from the deal. In cases like this, to simply compare this deal with another one which successfully completed would produce questionable results. To solve this, we create a sub-sample of deals which fail for exogenous reasons, i.e. outside of the control of the bidder. Using media coverage surrounding the date of failure sourced from LexisNexis, we distinguish the reason for each deal failing. Deals within the exogenous failed sample are deals which failed in the UK because of regulatory blocks by the Competition Commission, for example. When the bidder had every intention to complete the deal and didn't for reasons outside of its control, then methodologically our approach is further enhanced and reliable results can be produced.

Central to our work, we suggest that if mergers are in the best interests of existing shareholders, then successfully completed deals should outperform those which subsequently fail due to exogenous reasons – in essence we control for the performance of bidding firms had they not have conducted a merger deal. Notably, if successfully completed deals outperform those which exogenously fail in terms of the gains generated in both the short and long-run, then the evidence will suggest that managers are working towards their key objective of maximising shareholder wealth and mergers will be financially worthwhile for acquiring firm shareholders. Even if losses are incurred for both

successfully completed deals and their failed counterparts, mergers can still be beneficial to bidding firm shareholders so long as the losses to successfully completed deals transpire to be lower than those of deals which fail over the long-term. Furthermore, the literature emanating from the school of behavioural finance predominantly justifies merger activity as beneficial for bidders due to the use of overvalued equity to buy a less overvalued target under the premise of 'market-timing' (Shleifer and Vishny, 2003; Savor and Lu, 2009). Thus, we also control for the method of payment and examine whether those deals which announce an intention to use equity in a merger and continue to do so outperform those which have their proposed deal blocked for exogenous reasons, such as regulatory controls and so forth.

We focus this analysis on the UK merger and acquisition (M&A) arena and this is for several reasons. Firstly, as noted, most existing research pertains to the US market, where many existing theories have been developed. Whilst most activity does indeed emanate from the US, the UK accounts for over 40% of European merger activities individually with 65.3% of all European deals being initiated by a UK bidder (Faccio and Masulis, 2005). At present, the widespread justification for conducting mergers is market-timing. This theory, to be developed throughout this work, explicitly states that bidders benefit from cushioning the long-term collapse of overvalued equity via acquisition of the target's assets. While support in the US has been found, there remains disagreement over the methodological approaches employed. Recent work employing the use of new methodological approach centring on the US by Savor and Lu (2009) provides an inspiration for this paper to ascertain whether or not UK mergers are also driven by the same motivations. Therefore the UK is an ideal testing ground for not only the US market, but also for conclusions thus far reached academically over what drives merger activity.

In addition, the UK dataset is significantly different to that of most US research investigations which casts doubt over the validity of these prominent literary theories when applied to alternative datasets. For instance, Franks and Harris (1989) report that UK target firms gain higher than their US counterparts. Furthermore, Faccio and Masulis (2005) document that 80.2% of deals conducted in the UK are cash-financed. And finally, Doukas and Petmezas (2007) write that 91% of UK deals involve the acquisition of a private target. Addressing these characteristics, it remains unknown as to whether existing evidence for merger activity does or does not hold for the UK market.

In addition to the primary investigations centred upon value creation, this work extends the previous literature and significantly contributes to the current literary evidence through accounting for the valuation of the market. Guo et al. (2010) find that most firms conduct backward-looking market timing. That is, firms look at their past market performance and decide on their corporate strategies at times when they perceive their firm and the environment to be optimal. Not only can the misvaluation

of the firm play a key role in merger activity, but the activity and valuation of the market can also influence the acquirer's performance. Bouwman et al. (2009), in a related study, emphasise the importance of the role of the market in determining the quality of the deal undertaken. They find that mergers that take place in high-valuation periods (i.e. periods when the market is highly valued) are essentially very different to those which are undertaken in low-valuation periods (i.e. when the stock market is valued low). The valuation of the market can act as a proxy for the sentiment of market participants. When the market is valued highly, managers can become infected with hubris (Roll, 1986; Doukas and Petmezas, 2007) and can make erroneous decisions. Conversely, when the market is valued low, we reason that bidders have a stronger incentive to undertake more rigorous due diligence over the prospective merger deal. This can potentially lead to a better long-term performance, and so we assess whether the market itself can play a driving role in the UK merger arena.

Overall, this paper marries together existing research fields to give a comprehensive analysis of value creation from UK merger activity and finds some interesting results. The results from this paper strongly contrast the US evidence. It is found that while the successful sample of bidders outperforms significantly in the short-run, this outperformance does not transpire to the long-run where both failed samples largely outperform. This indicates that over the long-term, merger activity does *not* benefit bidding firm shareholders. In fact, the shareholders of 'successful' acquirers would have benefited more in the long-term had their deals have failed. Furthermore, there is no significant outperformance of the successful sample relative to the failed one in conditions where the target is purchased with 100% equity. For market-timing to hold, there should be a significantly better performance of successful bidders relative to those which sent the signal of overvaluation through announcing the intention to use equity, but failed to do so. This does not hold in the evidence found in this work. Successful bidders have an insignificantly different performance to those which fail under conditions of 100% equity payment. Thus, the question of why bidders conduct mergers is not altogether justified and explained purely by market-timing.

In addition, when the valuation of the market is controlled for (see Fuller et al., 2002) the results indicate that deals announced in high-valuation market conditions outperform those announced in low-valuation conditions in the short-term period. This can be consider as a proxy for the sentiment in the market as when the market is performing better, people within the economy tend to be optimistic about the future pushing prices today up through increased demand in the short-term. Market participants feel optimistic that they will receive the same or higher income in the future and thus consume more today. This increases the revenues for firms who then proceed to invest, with mergers as a vehicle in which to do so. When the market is highly valued and this is taking place, returns in the short-term generate significant wealth gains for bidders. However, in the long-term, the market

corrects its overreaction and moves back towards its efficient long-run equilibrium. The results in this paper show that when that happens, a significant downward correction takes place. In fact, deals which are conducted in low-valuation market periods generate a significantly higher performance than those undertaken during high-valuation markets over a 24 and 36 month period.

To conclude, this paper contributes to the existing literature in several ways. Firstly, for the first time, the wealth effects of UK acquisition deals which succeed or fail exogenously around the announcement of the deal and the date of effective completion/withdrawal is examined. The paper shows significant differences from established US findings. Using an innovative methodological approach, the results show that regardless of the payment method adopted, whilst successful bidders may significantly outperform in the short-run, this does not transpire to the long-run[1]. Furthermore, the mood of the market is also shown to be influential on bidder returns with deals initiated in high-valuation markets significantly outperforming those undertaken in low-valuation markets in the short-term before a significant reversal is witnessed over the long-term. The general consensus that low-valuation markets induces more careful consideration of investment opportunities can thus be supported so that bidders are recommended to ensure that due diligence is adhered to at all times.

The paper is now organized as follows: Section II presents the existing literature pertaining to the wealth creation from merger activity as well as firm and market misvaluation evidence. Section III outlines the dataset and methodological approach employed. Section IV reports the empirical results. Section V concludes the work.

II. Literature Review

II.I. The Wealth Effects of Mergers

Whether or not mergers create value for their shareholders has been a central research topic within the M&A research field for decades. And yet, still no definitive answer has been agreed upon in terms of the resultant effect for bidding firm shareholders. Following the work of Travlos (1987)[2], many merger theories have emerged considering the potential misvaluation of the firm's involved in deals and the resultant influence it may have over mergers and the decisions of managers throughout the process. Seminal work from Loughran and Ritter (2000) finds supportive evidence of the effects of misvaluation upon corporate firm activity. They postulate that behavioural timing is the response to

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[1] The UK merger market predominantly uses cash-financing. We find evidence which suggests there is no indication of successful market-timing, in its truest form. With the use of overvalued equity as the major justification for value creation via mergers in the behavioural literature, we reason that neoclassical explanations, not necessarily shown within the stock price of the firm, may prove a stronger driver in the UK arena.

[2] Travlos (1987) highlights the importance of the information signalled to the market at the time of a merger announcement via the bidder's choice of financing.

temporary market misvaluation but not the primary causation factor. In related work, Baker and Wurgler (2002) write that a firm's capital structure is the result of past attempts to time the market. Shleifer and Vishny (2003) furthered this school of thought applying it to mergers to develop the market-timing hypothesis.

The market-timing hypothesis writes that the valuation of the bidding firm in the market drives its acquisition activity. Central to their story is the notion of the combination between an irrational stock market and a rational managerial team. The rational manager notes the upward misvaluation of his/her firm in the market and responds through the execution of a merger deal using the overvalued equity of the firm. The idea is that the bidder is able to acquire a less overvalued or 'cheap' target firm and its respective assets using overvalued equity, thus ultimately at a lower price than would otherwise be possible. The only requirement is that the target is less overvalued than the bidder. Long-term, Shleifer and Vishny (2003) propose that the bidder's shareholders can gain as the merger cushions the collapse of the firm's value once the market efficiently corrects its mistake. It is assumed that the market will eventually recognise its mistake but the acquisition of the target's assets will increase the intrinsic value of the bidder and thus the shareholders gain from a reduction of losses which would have otherwise been experienced without the deal.

Savor and Lu (2009) directly test the implications of this hypothesis within the US market. Their work intuitively designs a methodological approach to assess whether or not overvalued equity acquisitions in the short-term do indeed transpire to a reduction of long-term losses. They create a sample of deals which are abandoned for exogenous reasons. These reasons include regulatory blocks by the government over the potential creation of a monopoly for example post-merger announcement. After ensuring the strict criteria are met, the failed sample totals 148 deals. This is compared with a sample of 1,050 successful deals in which the bidder manages to gain control over the target firm. Savor and Lu (2009) then comparatively assess the performance of the successful sample against that of the failed.

Examining the long-term performance of these two samples with only 100% stock-financing or 100% cash-financing compared, Savor and Lu (2009) present buy and hold abnormal returns (BHARs) and calendar-time portfolio returns. The results indicate that for deals which are equity-financed, the longer the time period that is assessed, the stronger the outperformance of the successful sample relative to deals which fail. In particular, there is a significant outperformance of 31.2% [-3.34 t-statistic) over a 750 day post-merger completion period. On the other hand, the work fails to find any significant outperformance for successful cash-deals over a similar long-term period. Thus supportive evidence of successful market-timing in the US is found. In this way, the use of equity when the firm is overvalued is portrayed as a wealth-enhancing decision for shareholders.

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Focussing on the UK market, Bi and Gregory (2011) comparatively assess the Q-theory of merger activity with stock-market driven postulations (Shleifer and Vishny, 2003). They note that managers work rationally to benefit existing firm shareholders at the expense of new ones or indeed at the expense of debtholders. Traditionally, the firm's share price is low following an equity-financed acquisition (Gregory, 1997; Loughran and Vijh, 1997; Rau and Vermaelen, 1998; Agrawal and Jaffe, 2000). Thus, acquirers which use equity should do so when their stock is at an all-time peak in order to benefit existing firm shareholders. While the stock price will be low following its completion, according to the previous literature, it should be higher than it would have otherwise been without the acquisition. On the other hand, the Q-theory of mergers completely ignores firm misvaluation and writes that firms which are highly valued are so because of excellent management and the ability to invest in many positive NPV opportunities. In this light, the market values the growth opportunities of the firm and its managerial ability so that the firm can be valued highly if both are perceived by the market as being good. In this theory, firms may wish to use equity so as to preserve cash for other positive NPV ventures. Examining the UK during the period 1985-2004, Bi and Gregory (2011) find supportive evidence in favour of market-timing based explanations for stock-financed merger activity. After controlling for the relative size between bidder and target as well as market-timing, proxies for the bidder's overvaluation appear to increase the likelihood of the firm making an equity offer for another (Bi and Gregory, 2011).

Analysing the long-term performance of mergers has invoked much debate within the literature however. Disagreement over the correct methodology to truly assess a bidder's performance long-term has led to varying results once again. To investigate whether the negative abnormal returns were simply a manifestation of poor controls for factors such as risk differences, Franks, Harris and Titman (1991) looked at the long-term performance of 399 US takeovers consummated during the period 1975-1984. Using multi-factor benchmarks to overcome concerns regarding mean-variance inefficiencies, the work finds different long-term results dependent upon the method chosen. Equally-weighted and value-weighted portfolios have significantly different returns with the former providing negative long-term returns over a 36 month period but the latter indicating positive returns. When multifactor benchmarks are used, zero abnormal returns are found for bidders over the same period. The work concludes with warnings that conclusions made are dependent upon a variety of factors such as the relative size between bidder and target, the method of payment and the methodology employed.

Many additional studies have supported the findings of these earlier works. Loughran and Vijh (1997) provided further weight to long-run underperformance of stock-financed acquirers. Examining the five-year long-run performance of 947 US domestic acquisitions undertaken during the period 1970-

1989, stock-deals generate a significant underperformance of -25% relative to a portfolio composed of matched-firms. Andrade, Mitchell and Stafford (2001) focus on the three years post-merger completion and find an overall significant loss of -5%. Once again the method of payment is found to be particularly explanatory with stock-financed deals suffering higher losses of -9% relative to cash deals which generate insignificant returns.

Given the literature, we reassess the value created by UK bidders through adoption of a new methodological approach. We create a sample of deals which fail for exogenous reasons and use this as a control for the performance of successful bidders had they not have conducted a merger. We reason that if mergers do generate significant value, then successful deals should significantly outperform those which do not materialize. Furthermore, if the market-timing hypothesis holds, then value should be created by successful bidders relative to those which intended to acquire but for exogenous reasons failed to do so when equity is used as the payment method. Thus, our first testable proposition is as follows:

H1: If mergers are in the best interests of bidding firm shareholders, then deals which successfully complete should outperform those which exogenously fail. This should hold in both the short and long-run.

II.II. Merger Waves and Acquisition Quality

There remains today an ongoing debate over why it is that mergers cluster over time. Neoclassical theories have suggested that it is due to a shock which affects all firms within an industry. This shock can be economic, regulatory or technological and the resultant effect is that the macroeconomic conditions change enough to make the combination of firms an attractive strategy (Mitchell and Mulherin, 1996; Harford, 2005; Owen, 2006). On the other hand, behaviourists have long argued the importance of the valuation of the market (Shleifer and Vishny, 2003; Rhodes-Kropf and Viswanathan, 2004; Rhodes-Kropf, Robinson and Viswanathan, 2005). While the determinants of merger waves have garnered much academic attention and continue to do so, the quality of mergers within these waves has also warranted attention. Seminal work by Morck, Shleifer and Vishny (1990) has instigated later work by Rosen (2006) and Bouwman, Fuller and Nain (2009) into the quality of mergers undertaken during periods when the market can become misvalued.

In line with the market-timing hypothesis, mergers which are conducted when the market is valued highly have a wealth-enhancing effect due to the reduction of long-term losses as the firms within the market revert back to fundamentals (Shleifer and Vishny, 2003; Savor and Lu, 2009). Decomposing the market-to-book ratio of bidders and targets, Rhodes-Kropf, Robinson and Viswanathan (2005)

show that bidders and targets (and thus merger activity) clusters in '*sectors with high time-series sector error*' (Rhodes-Kropf, Robinson and Viswanathan, 2005: 563). This infers that industry-wide valuation errors drive merger activity.

The effect of mergers upon the wealth creation for shareholders has been undoubtedly linked to the valuation of the market in previous literature for two major reasons – merger momentum and investor sentiment. The merger momentum hypothesis writes that deals announced in a high-valuation month should return significantly positive returns for the bidder. The idea is that an upward moving stock price should continue to move upward due to the momentum of the stock. Rosen (2006) argues that if a shock hits the market increasing the synergies on offer, then a favourable market reaction can be enjoyed by all bidders within the sector which can see momentum continue moving upwards. This hypothesis works on a related basis to the propositions of DeBondt and Thaler (1985) that winners remain winners and losers remain losers in the short-term period. However, at some point the market corrects its mistake and the share price should revert downwards so that deals conducted in high-valuation months should see long-term falls while those undertaken in low-valuation months should enjoy long-term rises.

Alternatively, the investor sentiment literature argues that when the market is valued highly, this misvaluation can systematically affect the quality of deals being undertaken. Studying the UK market, Petmezas (2009) argues that in high-valuation months, when information of a merger enters the market, investing participants will reward this news with significant positive abnormal returns. This is built on the notion that when the market is valued highly, investors become over-optimistic. They seek to ride the upward trend and fail to rationally assess each merger deal. Petmezas (2009) finds support for this reasoning. There are significant positive abnormal returns for bidders who announce their merger in a high-valuation month as opposed to those which announce during a low-valuation month.

When the market is valued highly, it is not just investors who have been argued to be at risk of over-optimism, or indeed overconfidence. Croci, Petmezas and Vagenas-Nanos (2010) examine the performance of rational versus overconfident managers in high and low-valuation markets. When the market is valued highly, Croci et al. (2010) note the work of Rosen (2006) and reason that managers can also become bullish. In these periods, managers can be guilty of overestimating the potential synergies on offer and thus significant lower-returns should be experienced. To examine this hypothesis, the authors classify managers as being either rational or overconfident according to two proxies – Multiple Acquisitions proxy and Stock Options proxy. They find that managers which are rational enjoy the highest abnormal return while deals announced in high-valuation months enjoy the

most significant and positive returns on offer. In this way, the valuation of the market is shown to reap positive rewards for short-term gains when valued highly.

Specifically assessing the quality of merger deals undertaken during high and low valuation markets, Bouwman, Fuller and Nain (2009) empirically examine the relation between market valuation and acquisition quality as discussed by Rhodes-Kropf and Viswanathan (2004), and Shleifer and Vishny (2003). Bouwman et al. (2009) classify the market as being 'hot', 'neutral' and 'cold' according to the level of the P/E of the S&P 500 index. The authors note that this P/E value has steadily risen over time and as a result they use a detrended P/E ratio. Months that are above (below) a past five year average are classified as above (below) average months. Then, the top 25% of the above-average months are classified as hot or high-valuation months while the bottom 25% of the below-average months are defined as cold or low-valuation months. Every other month is classified as neutral. The deals from their US sample are classified as hot, neutral or cold depending upon the month in which they were undertaken and the corresponding market valuation classification.

Once stratifying the sample in this way, Bouwman et al. (2009) find that the bidder's announcement return is insignificantly negative for acquisitions undertaken in high-valuation months but significantly negative for those conducted in low-valuation months. There is a significant out performance of deals undertaken in high-valuation months versus those executed during low-valuation months. When the work examines the long-term however, the evidence indicates that there are significantly lower long-run returns for bidders who initiated their deal in a high-valuation month versus those in a low-valuation month. The authors note that a lot of the significant wealth destruction during the nineties was largely due to bidders using cash in hot-valuation markets. Of all cash deals within the nineties, 60% were in hot-valuation months. Thus it is suggested that cash may destroy value when used inappropriately. On the whole, the work shows that the long-term quality of deals initiated in highly-valued markets is significantly worse than those initiated in low-valuation periods.

High-valuation periods foster a sense of optimism and this manifests itself in positive security prices. This can lead to overvalued firms who can conduct investments using overvalued equity. Similarly, when the market is valued low, there is targets can filter out too much of the market-wide effect so that deals appear unattractive. However, bidders and targets can be motivated to ensure that they undertake comprehensive due diligence so as to avoid a sustained negative market reaction. This literature leads us to the second testable proposition of this paper:

H2: Mergers conducted in low-valuation markets should be of a better quality so that successful bidders should create significant value long-term under these conditions. Furthermore, Successful and Failed bidders should enjoy higher abnormal returns in high-valuation months in the short-term but should suffer lower abnormal returns over the long-term periods.

III. Data and Methodology

III.I. Data

The data utilised in this work is sourced from Thomson One Banker and Thomson DataStream. Information related to the characteristics of the deals (i.e. acquirer name, target nation, deal number, announcement date, date of effective completion/withdrawal, payment methods, deal status, deal value and target status) are taken from Thomson One Banker.

63, 967 deals were announced by UK acquirers between 01/01/1990 and 31/12/2009 of which 57,170 are flagged as succeeding and 1,388 are flagged as having been withdrawn. We restrict the samples to meet the following criteria:

- The acquirer is a publicly-listed UK firm traded on the London Stock Exchange with five days of return data around the announcement date of the deal and one to three years of return data on the DataStream database to allow for long-term analysis.
- The deal must take place between 01/01/1990 and 31/12/2009 as the number of UK deals between 1985 and 1990 is small due to lack of relevant information.
- The minimum deal value is £1m to control for the size effect.
- The deal must represent at least 1% of the market value of the acquirer.
- Bidders and targets which are financial or utility firms are excluded from the sample (see Fuller et al., 2002).
- Multiple deals announced within a five day period are excluded.
- Payment-information is known (i.e. cash, stock or mixed).

Our main investigation is the performance of successful deals in relation to those which fail. Thus deal outcome plays a pivotal role in this study. We define a deal as being Successful if the acquirer gains control of the target – that is the bidder completes with a holding of 51% or above post-acquisition. We define a deal as having Failed as one in which the deal is withdrawn, as flagged by Thomson One Banker. Our final sample consists of 5,240 Successful deals and 223 Failed deals. Figure 1 shows the number of bids in the dataset stratified by the payment method used. It can be seen that the number of cash-financed deals soar above those financed with equity.

[Insert Figure 1 here]

In addition to our main overall samples, Savor and Lu (2009) explain the importance of controlling for the reason of failure for the failed sample. This paper follows the argument of Savor and Lu (2009) and compiles an Exogenous Failed sample. To be included in this sample, we require that the deal fails for reasons outside of the bidder's control. In the UK market, competition is high while the regulatory system plays an important role in governing merger activity. Together, 89 deals alone which fail are for these reasons. However, others fail for reasons within the control of the bidder and to ensure the reliability of the results produced, we use data from LexisNexis surrounding the date of merger withdrawal so as to ascertain the reason for the failure of each deal. 118 deals are removed from the full failed sample according to the methodology of Savor and Lu (2009) so that we are left with an Exogenous Failed sample of 105 deals. Of these 118 deals, 33 fail because the target refuses the offer, 31 deals see the bidder walk away following poor negotiations, 22 are found to have endured particularly difficult negotiations causing the deals collapse, 1 fails to raise the financing desired, 6 suffer from a downgraded forecast over the bidder's future performance and 3 have an extreme negative market reaction forcing the bidder to withdraw. In addition, 22 are removed as we can find no reason for their failure and thus to ensure reliability, we remove these so that we are left with a second failed sample comprising of 105 deals.

The time-distribution of the full sample is shown in Table 1. The volume of deals peaks around 1998. This marked the fifth noted merger cycle to date. In the US, $1.4 trillion was spent in merger activity in this cycle (Alexandridis, Mavrovitis and Travlos, 2011). This swept to the UK where the market spent circa £1 trillion in corporate mergers and acquisitions. The deals in the successful sample of this study total £120 billion in this year. The volume of deals can be seen to remain around this level from 1997-2001. This period also marks some of the highest volume of deals which failed as well, highlighting the overall activity and competition of the market for corporate control. Post 2001, merger activity fell as the 9-11 recession hit which combined with other economic difficulties. The table shows how the volume of mergers then rose from 2002 to a second peak in 2006 as debt-financing was plentiful. From this point onwards, given our criteria, the number of deals fell dramatically given the effects and ramifications of the global credit crunch resulting in a poor ability to raise finance for deals given the collapse of high tier investment banks.

[Insert Table 1 here]

In addition to the analysis of successful versus failed deals, the secondary analysis of this paper looks at market-wide misvaluation. In order to classify the market as being valued either high or low, we follow the work of Bouwman, Fuller and Nain (2009) and use a detrended market PE proxy. Given inflation and other effects, firms' PE ratios tend to drift upward over time and thus without detrending the PE ratio, the sample would see more high (low) value periods later (earlier) in the sample period.

If the current month in question has a PE ratio higher (lower) than the preciding five-year average then the month is classified as 'above-average' ('below-average'). The top 25% of the 'above-average' months (and the deals announced within these months) are classified as high-valuation while the bottom 25% of the 'below-average' months (and the deals announced within these months) are classified as low-valuation.

Finally, based on the extant literature, we also consider a range of standardised control variables in the multivariate analysis. These are explained further in the next section but include the relative size between bidder and target (employed by Asquith *et al.*, 1983; Jensen and Ruback, 1983; Antoniou *et al.*, 2007; Kiymaz, 2004), target listing status (see Travlos, 1987; Chang, 1998; Draper and Paudyal, 2006), method of payment (see Travlos, 1987; Fishman, 1989; Linn and Switzer, 2001), acquirer size and value (see Rau and Vermaelen, 1998; Sudarsanam and Mahate, 2003), domestic/cross-border deals (see Doukas and Kan, 2004) and diversified/focussed offers (see Chatterjee, 1986; Morck et al., 1988).

III.II. Methodology

The performance of the acquiring firms is measured in terms of both the short-run and long-run abnormal return's (AR) generated by the M&A deal. The short-run analysis centres on a five-day window employing the Market Adjusted Abnormal Return approach (Seiler 2004; Brown and Warner, 1985) whilst the long-run is assessed using the Buy-and-Hold Abnormal Return (BHAR) approach favoured by Buchheim *et al.* (2001).

The short-run analysis is conducted as an event-study with a window of five days (-2,+2) around the M&A announcement date[3]. We calculate the normal returns of the firm using daily price index data as follows:

Equation 1

$$R_i = \ln\left(\frac{P_t}{P_{t-1}}\right)$$

Where R_i relates to the daily normal return of stock i while P_t and refer to the stock price on day t and $t-1$ respectively.

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[3] For robustness, we repeat the analysis with a shortened 3 day event window (-1,+1). The results remain consistent with our analysis conducted.

In determining short-run AR's, we follow the guidelines of Seiler (2004) that AR's are defined as anything earned above the market return each day so that the expected return of a stock is assumed to be that earned by the market (Seiler, 2004: 220)[4]. This market adjusted AR approach is in line with Brown and Warner (1980) so that AR's are the excess stock return adjusted for the market over the sample period (Buchheim *et al.*, 2001: 22). With this in mind, the normal returns of the stock (R_i) must have the normal market return (R_m) deducted in order to generate the AR on each of the five day's as follows:

Equation 2

$$AR_i = R_i - R_m$$

Where $R_m = \ln\left(\frac{P_t}{P_{t-1}}\right)$. R_m is the normal market return calculated using the daily price of the FTSE Allshare over the sample period. The AR's are summated to give the cumulative AR (CAR) as follows:

Equation 3

$$CAR_i = \sum_{i=0}^{n} AR_i$$

Given the role the market is posited to play in potential firm misvaluation, we believe this model to be particularly appropriate in determining the AR's to be analysed through allowing for us to see whether stock returns move in line with the ups and downs of the market.

Short-Run univariate analysis will involve the above process for each portfolio of M&A deals. Their characteristics will be analysed in terms of the descriptive statistics based on the portfolio CAR's before we compute the portfolio t-value, and following Seiler (2004), the T-statistics are computed using the formula:

Equation 4

$$t = \frac{AR_T}{\sigma(AR_T)/\sqrt{n}}$$

Where AR_T refers to the sample mean, and $\sigma(AR_T)$ is the cross-sectional sample standard deviation for the sample of *n* firms.

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[4] We note the abundant methods available for calculating short-run CARs. (Sharpe, 1964; Lintner, 1965; Lyon et al., 1999; Brown and Warner, 1985). Due to the restrictions of other models, such as the CAPM (Roll, 1977), we use the market-adjusted approach, with the market as a benchmark.

In assessing the acquirer's long-run performance, Fama (1998) claims that different methodological approaches produce different results for long-run AR's so that testing in effect becomes a one over the choice of econometric model rather than a direct test of the study at hand. He further stresses that the assessment of various events with different models is noted often to eradicate the existence of an anomaly. As a consequence, choosing the correct model is therefore imperative.

To combat problems associated with long-run analysis and the noted bad-model problem (Fama, 1998), we intended to employ the use of two well-known long-term approaches, the BHAR approach and the Calendar-Time Portfolio approach (CTPA). However, upon implementation of the CTPA, we encountered a number of problems with the Failed sample due to its smaller size while there were no such problems for the Successful sample. With this in mind, there was a question over our ability to reliably compare such sample results given the different periods assessed. In this way, the discussion of long-run acquirer performance will be analysed in terms of the BHAR approach.

As pointed out by Buchheim *et al* (2001: 28), the BHAR approach employed measures the difference between the compounded actual return and the compound predicted return, and it is calculated as follows:

Equation 5

$$BHAR_{it} = \prod_{t=0}^{T}[1 + R_{it}] - \prod_{t=0}^{T}[1 + R_{mt}]$$

where R_{it} and R_{mt} are the arithmetic returns including dividends on security i and the FTSE Allshare value-weighted index respectively at time t. The results are mainly discussed for a thirty-six month holding period but we also compute twelve- and twenty-four month BHAR's which serve to confirm our results and are provided at the end of this paper.

We conduct a robust check for our results through calculation of a Bootstrapped T-Statistic also. This statistical method has gained prominence within the literature as research began to criticise the potential skewed-distribution problem of the BHAR approach (Barber and Lyon, 1997)[5]. BHAR's do accurately reflect the effect of a particular corporate event upon the investor and their holdings (Buchheim *et al.*, 2001: 28) and it is for this reason that they are utilized for assessing the robustness of the long-run performance of UK acquirers.

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[5] We report normal t-statistics but bootstrapped statistics are available upon request. The results remain consistent.

In order to ensure the reliability of the results produced, robustness checks for the short and long-run are also conducted. The short-run window has been shortened from five-days to three-days to further assess the impact the M&A announcement has upon the gains created. The 5-day CAR's results are reported and we also find that 3-day CAR's are very similar. Finally, the long-run window has been shortened from 36-months to 24 and 12 months. We find that the results largely support our main findings although some coefficients lose their significance[6].

In addition to the short-run and long-run univariate analyses, a multivariate analysis is conducted to examine the causation factors explaining the reactions of the market reflected in the acquiring firm's share prices. As criticised by Draper and Paudyal (2008), univariate analysis fails to allow for the interaction of alternative variables upon acquirer's gains, and consequently we extend our analysis to model such interactions. The 5-day CAR's at both DA and DO are investigated in the following multivariate framework:

Equation 6

$$5 \, Day \, CAR = \alpha + \sum_{i=1}^{N} \beta_i X_i + \varepsilon_i$$

In model (6), the constant α reflects '*everything after controlling for the effects of all the explanatory variables*' (Draper and Paudyal, 2008: 395). In this setting, we include a vector explanatory variables in X_i including our deal outcome and market-valuation alongside various control factors. The leading variables include a Successful dummy which takes the value of 1 if the deal is successfully completed as defined earlier (0 for deal failure); an Overvalued dummy which takes the value of 1 if the bidder is classified as undervalued[7]; an Undervalued dummy which takes the value of 1 if the bidder is classified as undervalued[8]; High-Valuation takes the value of 1 if the deal was announced in a high valuation month; and Low-Valuation takes the value of 1 if the deal was announced in a low-valuation month.

Our control variables include the following: Cash takes the value of 1 with 100% cash-financing; Stock takes the value of 1 with 100% equity-financing; Diversifying takes the value of 1 if the target is in a different industry to the bidder as measured using the Primary SIC codes of the bidder and

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[6] These results are available upon request.
[7] This takes the value of 1 if the acquirer is deemed to be overvalued using a historical 24-month PE ratio as outlined earlier in this section.
[8] This takes the value of 1 if the acquirer is deemed to be undervalued using a historical 24-month PE ratio as outlined earlier in this section.

target; and Cross-Border takes the value of 1 if the target was from the UK. Additionally we also control for value and size effects using the MTBV of the bidder one month prior to deal announcement as well as the logarithm of the bidder's Market Value one month prior to deal announcement. We conduct a variety of combinations and these are discussed later in this work. In addition, we use STATA to produce robust t-statistics to control for potential homoskedasticity. The analysis also controls for the possible interaction effects between various terms and these prove to be consistent with our findings.

III.III. Summary Statistics

Table 2 depicts the summary statistics for Successful and Failed acquirers – F(A) refers to the full Failed sample comprising of 223 deals while F(E) refers to the Exogenous failed sample which is composed of 105 deals. For Successful acquirers we see an average market capitalisation of £311m. For Failed deals, the acquirers are much larger with an average market value of £1164m. This is slightly more for those in the F(E) sample where the average market value rests at £1456m. Most notably, the MTBV's for Successful acquirers are larger than Failed ones, which implies that Successful acquirers may be more overvalued than their Failed counterparts. Indeed it may also infer that the market is more optimistic regarding Successful acquirers and therefore more favourably values these firms.

[Insert Table 2 around here]

The statistics show that there are more deals undertaken in high-valuation months than in months which are valued low. The literature suggests that the market is more receptive to the announcement of mergers during high-value periods when investor sentiment is high. In this way, it is attractive for firms to announce deals of which they are uncertain over its success in these market conditions so as to benefit from the higher market optimism. There also appears to be a large majority of Successful deals completed using cash being undertaken in these months with Failed deals additionally also having slightly more cash-deals than stock. Therefore, the table also provides supportive evidence for Faccio and Masulis (2005) showing that the majority of UK deals are financed using cash. However, cash deals do have a slightly lower MTBV of 2.47 for the method of payment portfolios when compared with stock of 2.54. The t-statistics for the two group test is -0.77 which suggests that valuation does not play a major role in the choice of deal-financing.

We can see that on average for private targets, Successful acquirers are 61.28% of the size of their counterparts conducting public acquisitions. For Failed deals, private acquirers are 89.45% the size of

public acquirers. Whilst private targets are smaller relative to the acquirer in Successful deals compared to public targets, this does not hold in Failed deals where public targets are smaller.

Additionally, the table shows that the majority of UK deals involve the acquisition, or attempted acquisition, of a UK target with more deals classified as Domestic than Foreign. Furthermore, there is a majority of Glamour acquirers in the samples and this may impact on the long-run performance. Not surprisingly, we see a much larger time interval in deals which are subsequently withdrawn (120 days) as compared with those that succeed (21 days). Furthermore, this increases to 132 days for the exogenous Failed sample. Failed deals could fail for a number of reasons such as changed regulation, competing offers, falling valuations, repellent strategies amongst others. It could be the case that the longer a deal is taking to complete, the stronger the indication that the deal may fail or be blocked. The figures show that Failed deals largely are attempting to acquire a Public target. Public targets tend to be larger firms, subject to stronger regulation and market control. The acquisition of a Public target requires the shareholders (which tend to be a larger group) to agree to the deal. This, coupled with the presence of competitive bids from rival firms, may help explain the reason for deal failure.

IV. Empirical Findings

IV. I. Short-Term Findings

Earlier in this work, it was argued that successful acquirers should significantly outperform those which announce an intention to acquire but fail to do so, particularly when the use of equity is involved. This is built upon the empirical foundations of Shleifer and Vishny (2003) and Savor and Lu (2009). Furthermore, once any endogeneity issues with regards to the failed sample have been addressed, the results should more clearly show a significant outperformance if the merger activity does indeed benefit the shareholders involved.

(Insert Table 3)

Table 3 presents the results for the short-run five-day CARs around both the date of announcement and date of deal outcome. In Panel A, the full combined sample returns (successful deals plus the full failed sample) are shown, stratified by the deal's method of payment. When the deal is financed using 100% cash (stock) then it is in the cash (stock) sample, otherwise the remaining deals paid for using both equity and cash are placed in the mixed sample (Travlos, 1987; Shleifer and Vishny, 2003; Savor and Lu, 2009). Earlier, we documented the literary feeling that acquisitions provide a vehicle for managers to cushion losses as the firm's overpriced stock reverts to its intrinsic lower value through the addition of the target's assets, raising the fundamental value of the bidding firm.

Panel A of Table 3 shows that on average, bidders earn 1.00% (p value = 0.000)[9] significantly positive abnormal returns at the date of announcement while these are complemented with a further 0.68% (0.000) upon the outcome of the deal. For those bidders which finance their deal using cash, significant and positive abnormal returns are enjoyed. At the date of announcement cash bidders earn 1.27% (0.000) whilst also earning 0.89% (0.000) at the date of outcome. The mixed financing sample also earns significantly positive announcement and outcome returns of 0.92% (0.000) and 0.63% (0.000) respectively. However, for the stock-financed sample, no significant announcement or outcome effect is found. There are only 250 deals financed purely with equity for both samples and this shows the apparent dislike for equity financing in the UK market. Its use does not provide a significant negative effect in the short-run as predicted and seen in the US market. Instead, bidders and targets predominantly favour cash where significant gains can be earned.

In Panel B, bidders which successful complete their deals are presented and the results from Panel A are supported. This is not surprising as the successful sample comprises the majority of the deals modelled in Panel A. The Failed sample, and its sub-sample of deals which fail for exogenous reasons are shown in Panel's C and D respectively. Within this work, the failed sample acts as a control for the performance of successful bidders. The focus is on whether or not successful mergers create value for their shareholders. This is assessed by whether or not successful bidders significantly outperform those which fail, and furthermore, those which fail for exogenous reasons. Thus the discussion moves to Panel's E and F which displays this differential information. The results indicate that in the short-term period, bidders which succeed significantly outperform those which do not at both the date of announcement and date of deal outcome. At the date of announcement, successful bidders earn 1.39% (0.000) more than those which fail. This is even more pronounced at the date of outcome where this outperformance rises to 1.41% (0.000). These results show that bidders in the UK, on average, do significantly create short-term value.

When these samples are stratified according to the deal's method of payment, the results indicate that cash bidders also significantly create value. At the date of announcement those firms which successful complete their deals using only cash earn 2.14% (0.005) significantly more than those which intended to complete their respective deals under the same terms while this outperformance is complemented by marginally significant returns of 1.20% (0.105). Despite the significant outperformance of cash bidders, those which finance their deals using stock fail to generate any significant outperformance. In fact, there is an insignificant difference between successful and failed bidders in this short-run analysis for stock bidders. This finding refutes that of Savor and Lu (2009) as they show that stock-

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[9] We report p-values in parentheses throughout the remainder of this work.

financed bidders do significantly create value through a significant outperformance of the successful sample relative to the failed. The UK evidence shows no support for this finding or indeed therefore for the market-timing hypothesis, the premise behind Savor and Lu's work.

When the failed sample is purified by the nature of its collapse, the superiority of the successful sample can be viewed even more clearly. Panel F displays the results and it can be seen that successful bidders significantly create 1.70% (0.001) value through the completion of their deal. At the date of outcome when the market knows with certainty that the deal has successfully completed, bidders create further significant value of 1.17% (0.082). These results are supported within the cash bidder sample with bidders significantly creating value through successful completion of 1.51% (0.007) at the announcement date and 1.77% (0.006) at the date of completion. However, despite the purification of the failed sample, there is no difference for the stock-differentials. It remains true that successful bidders have an insignificant effect on their stock prices through completing their deal with stock as opposed to if it had have collapsed. Thus, there is no evidence of successful market timing in Table 3[10].

However, is the quality of deals undertaken when the market is highly valued significantly different to those undertaken when the market is valued low? The value of the market can proxy for the conditions in which the deal is undertaken. If the market is valued highly, then it is generally believed in the literature that participant will enjoy optimistic views over the future. Firms invest more, with mergers as a suitable vehicle, while investors and households spend their holdings driving the economy further forward. However, when the market is valued low, the effects can be similar to those of a recession. Firms cut back on their investments and increase the level of due diligence. Conservatism holds the reins in such conditions and the economy witnesses a contraction as money, in effect, is held rather than spent.

(Insert Table 4)

The results of the analysis of mergers according to the valuation of the market are presented in Table 4. Deals which are undertaken when the market is valued highly are shown in the first column while those undertaken when the market is valued low are shown in column two. The third column displays the differential performance between the two sub-samples of deals. As reasoned, when the market is valued highly, firms and investors spend more and invest as they hold optimistic views of the future. Firms in particular, with free cash flow, put this to use by undertaking a merger and acquisition. On

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[10] For robustness, this analysis is repeated using a three-day event window instead. The results of this analysis are available upon request. For brevity, the results are not further discussed but it is noted that the above discussion continues to hold.

the other hand, when the market is valued low, investment and spending contracts with widespread conservatism. This is supported by the number of deals undertaken in high-value periods outnumbering those in low-value periods, with 1,816 in the former sample and 1,057 in the latter. However, despite conservatism which could in fact result in better long-tem mergers in low-value periods given a stronger desire to undertake more rigorous due diligence, the market at that short-time frame will react in a cautious way to investments made in poor market conditions. On the other hand, when the market is highly-valued, then the firm should benefit from positive and optimistic market reactions upon the announcement and completion of their deal. These should furthermore be significantly better than the market reactions in low-value periods if indeed, the condition of the market is an important factor in value creation.

Panel A of Table 4 presents the results for the full successful and failed samples combined. As expected, bidders earn significantly positive abnormal returns around the date of announcement of 1.44% (0.000) when the market is valued highly, further complemented with significantly positive outcome date returns of 0.84% (0.000). This positive and significant market reaction holds once again for cash bidders and for those who use a mixture of equity and cash to finance their deals. Interestingly, despite only 81 mergers being paid for with solely equity when the market is valued high, stock bidders do earn marginally significant positive returns of 1.09% (0.104), significant at the 11% confidence level. This is the first significant result that has been found thus far for stock-financed bidders and it appears that the market optimism in high-value periods appears important in the decision to merge.

On the other hand, when the market is valued low, bidders earn significant announcement returns of 0.40% (0.064) but there are, on average, insignificant outcome date returns of 0.14% (0.519). When the differential performance of bidders undertaking deals in high-value markets are compared to those in low-value markets in the third column of Table 4, the results show that deals in high-value markets significantly outperform those in low-value periods, by 1.05% (0.000) at the announcement date and 0.70% (0.006) at the date of outcome. This shows that the market is significantly more receptive to the announcement of deals in high-value periods than at other times. In addition, while cash bidders in low-value periods do earn 0.75% (0.011) significantly positive announcement returns, these are still significantly 0.92% (0.021) lower than the same returns in high value periods. Once again, the value of conducting a merger when the market is highly valued is shown in terms of short-term value creation.

The results of the Successful sample in Panel B are consistent with those in Panel A. Successful bidders earn positive and significant announcement returns of 1.48% (0.000) as well as enjoying completion returns of 0.89% (0.000). These are both significantly more than those bidders which

successfully complete their deals in low-value periods. Indeed, successful bidders significantly earn 1.00% (0.000) less at the announcement date and 0.59% (0.016) less at the date of completion in low-value periods.

Perhaps most interesting about the results in Table 4 is the market's reaction to failed deals in Panel's C and D. When the market is valued highly so that optimism is also correspondingly high, bidders which announce a deal which fails earn insignificant returns at both the date announcement and withdrawal dates. However, when the market is valued low such that participants become more conservative over the future and indeed firms are more prudent with their investments, those deals which subsequently fail earn significantly negative losses of -2.24% (0.017) at the announcement date. These are accompanied by stronger negative losses of -4.96% (0.096) at the date of withdrawal. Thus, when the market is valued low, bidders should ensure that any deal to be undertaken is done so with confidence that it can and will complete. Without this, there are significantly negative returns 2.92% (0.010) lower than if they undertook a similar deal when the market was more optimistic. The market appears to be forgiving when optimism is high, and punishing when it is low. The results of Panel D also reaffirm these findings, with a significantly stronger loss 3.44% (0.044) lower for bidders in low-value periods relative to high-value ones.

The differential performance of successful bidders relative to those which fail is arguably most important in this paper. The results in this respect are shown in Panel's E and F of Table 4. There appears to be no significant value creation in high-value periods for successful bidders relative to those which fail. None of the results indicate any significance in the first column for Panel's E and F. However, the importance of ensuring the quality of the deal in low-value periods is reaffirmed with significant value creation if the deal completes. Without the completion of the deal, Panel's C and D show significant punishment from the market and thus due diligence is imperative in this sense. Panel E shows that there is significant wealth creation of 2.72% (0.005) for successful bidders at the date of announcement and a further 5.25% (0.079) significant gain when the deal completes comparative to if it should fail. This is also true for mixed-financing bidders. These results also hold in Panel F where there is a significant announcement return 2.82% (0.057) higher for successful bidders relative to bidders whose deals fail. All in all, the results show the importance of deal completion in low-value periods. Without the success of the deal, firms leave themselves open to severe market punishment[11].

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[11] For robustness, this analysis is repeated centring on a three-day window, more specific to the merger announcement and outcome dates. The above discussion continues to hold and the results are available upon request. For brevity, the discussion will not be repeated due to the similarity with the above analysis.

IV.II. Multivariate Analysis

While the evidence gathered above has shown the univariate effects of deal outcome and market conditions upon value creation, the determinants and influence of these results are unknown. In order to investigate the relationship between the returns experienced and various explanatory factors, such as acquirer size (Moeller *et al*., 2004), deal outcome (Jensen and Ruback, 1983; Limmack, 1991), target status (Chang, 1998) and method of payment (Travlos, 1987), multivariate analyses are conducted to further examine the influential factors behind the wealth changes experienced within the UK merger market.

To explore the findings of this paper further, the returns of the short-term analysis are regressed on a series of independent variables proven within the existing literature to be influential in terms of a bidder's performance during and after a M&A deal. In all regressions, the main explanatory variables used are deal outcome and market valuation, both central to this work.

We run a series of regressions where the dependent variable changes as outlined earlier in the Data and Methodology section. The bidder's five-day CAR's around the Date of Announcement (DA) are modelled in two separate analyses – one with the full Failed sample included; the other with the sub-sample of Exogenous Failed deals. Table 5 reports the results for the multivariate analysis of five-day CARs around the deal's announcement date.

[Insert Table 5 around here]

In regressions (1) to (6) the dependent variable is the five-day CAR around the date of announcement. The short-term analysis has shown that the market does award successful bidders with significant short-term value creation. This is supported with a statistically significant positive relation between the dependent returns and the independent Successful dummy variable. This reinforces the finding in the short-term that value is created with a positive relation with the outcome of the deal.

In addition to deal outcome, the value of the market has also been explored within this work. The variables High-Value Market and Low-Value Market take the value of 1 if the deal in question was undertaken during a high-value or low-value period respectively. The univariate short-term analysis showed that the market positively responded to successful deals in both periods. Table 5 indicates that there is a significant and positive relation between value creation and the High-Market Valuation dummy variable in models (3) and (4), such that deals announced in high-value market conditions generate higher returns. While the models show the importance of announcing a potential merger in periods when the market is highly valued, the same is not true for conditions in which the market is

valued low. Basic regressions of the stock returns upon the low-value dummy show a significantly negative relationship. However, when this is included both deal outcome and other control variables the relationship loses all significance and thus does not exert a meaningful impact. There is no significant impact exerted by Low-Value market conditions across models (5) and (6) and thus it is recommended that bidders can benefit short-term through the announcement of deals in periods when the market is optimistic and valued highly. Indeed, this result combined with the univariate results seems to insinuate that it is important to announce only a deal which is believed can almost certainly complete in conditions when the market value is low, but firms can earn higher profits by announcing any merger deal in high-value periods.

The literature highlights the importance of specific deal characteristics in explaining bidding firm returns. Informational asymmetry plays a central role in the work of Travlos (1987), which argues that equity-financing, in particular in the act of issuing equity in the merger payment, signals overvaluation to the market and thus should exert a negative impact on the market price of the firm as it is corrected downward towards fundamentals. The multivariate analysis supports this with a significantly negative relation between value creation and the use of 100% equity, as denoted with the variable 'Stock'. In addition, the relative size of the deal is found to significantly explain the returns of UK bidders (Asquith et al., 1983), as well as the size of the bidder, the pre-market return and the risk-premium. These are all in agreement with the previous literary findings[12].

IV.III. Long-Term Analysis

To view value creation from a merger using only a short-term event window fails to take account for the impact of the deal upon the bidder over the long-term, once the target has been incorporated into the operations of the firm. However, the question becomes how long should the analysis continue for? The standard literature tends to view the long-term performance of the bidding party over a three-year holding period. However, there are some studies which prefer a shorter two-year window. In this vain, this paper conducts long-term analysis over both periods to examine the impact of the merger over the second and third years post-acquisition.

(Insert Table 7 about here)

Table 7 reports the long-term returns for the samples over a three-year period, once the newly combined firm has already incorporated most changes and endured the integration difficulties. The

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[12] We repeat the multivariate analysis using only Exogenous Failed deals combined with those which succeed. The results remain the same and are provided in Table 6.

results are in stark contrast to the short-term analysis. Instead of finding significant positive returns across the samples, the long-run shows a significant long-term decline for all bidders, regardless of deal outcome. On average, bidders significantly lose -23.09% (0.000) during the three-year post-announcement while in the three-year post-deal outcome, these losses increase to -24.05% (0.000) as shown in Panel A. Interestingly, while there were no significant returns for stock-financed bidders in the short-term analysis, the long-term work indicates that there is a significant loss for bidders which finance their deals using stock. Panel A shows that stock-bidders lose on average -43.21% (0.000) from the date of announcement and -44.29% (0.000) from the date of deal outcome. Significant losses are returned across all methods of payment, however, the strongest losses emanate from bidders which issued stock to acquire. This is consistent with the signalling literature which indicates that over the long-term, there should be a downward decline in the stock prices of firms which issue equity, as doing so would indicate overvaluation on the part of the bidder.

The evidence in Panel B supports Panel A, and it is clearly successful bidders which are driving the significant wealth losses for the stock sub-sample. Bidders which successfully complete but use equity to do so, earn -47.09% (0.000) from the date of announcement and -47.02% (0.000) from the date of completion. However, the argument of Savor and Lu (2009) suggests that bidders which finance their deals using stock will inevitably witness a long-term decline as it would be irrational to issue stock at any period other than when it is overvalued. Thus, it is expected that this sub-sample should incur losses. The interesting investigation is to examine whether or not these losses are significantly better than those bidders which announce an intention to use equity but fail to do so, or indeed whether they are worse. If the losses are lower for successful bidders relative to those which fail then significant support for market-timing is found. However, if successful bidders suffer stronger losses, then merger activity does not benefit the bidder and the UK market would show either insignificant support for market-timing, or would significantly reject it.

Panel's E and F view the differential performance between successful bidders and their control group – bidders which fail to execute their deal. On average, successful bidders significantly underperform those which fail from the date of announcement with -12.32% (0.042) losses. There are also marginally significant losses from the date of deal outcome as well, with an underperformance of -9.29% (0.123). When those deals which fail for reasons endogenous to the bidder are removed, these results become even stronger. In fact, successful bidders significantly underperform those which exogenously fail by -27.67% (0.005) from the date of announcement, while this drops slightly to -21.15% (0.030) from the date of completion. This undoubtedly shows that market-timing does not hold in the UK market. The US results, and the intuitive methodology of Savor and Lu (2009), suggest that market-timing can be rewarding for US bidders. Table 7 shows this is not the case for the

UK over the long-term where successful bidders significantly underperform those which succeed. In fact, bidders, it would seem, would be better placed had their deals have failed in the short-term.

When the payment method for the deal is controlled for, it can be seen that stock financed bidders who successfully complete their deal earn significantly less than those which fail to execute their deal. From the merger announcement date, this underperformance is -40.44% (0.059) while this falls to -28.45% (0.105) from the date of outcome, suggesting somewhat that perhaps the market does readjust the stock price of the bidder between the date of announcement and outcome, despite the short-run evidence.

However, when those deals which fail for exogenous reasons are removed in Panel F, there is insignificant evidence for stock-financed bidders. Although there is a negative underperformance, the differential performance fails to retain its significance. This could indicate that the market does not punish those bidders which fail for reasons outside of their control while those which fail for reasons endogenous to their firm suffer from negative declines in their stock prices.

While the stock-financed differentials do not retain their significance in Panel F, there is still an overall significant underperformance of successful deals. From the announcement date, there is a significant negative underperformance of -27.67% (0.005) while this is -21.15% (0.030) from the date of deal outcome. Unequivocally, the evidence displays no similar findings to that of Savor and Lu (2009) or indeed for the predictions of Shleifer and Vishny (2003). There is no significant evidence of market-timing in the UK, even when this paper adopts the intuitive methodology of Savor and Lu (2009)[13].

But what of the performance of bidders in high and low valuation markets? Table 8 reports the long-term performance of UK bidders categorised by market valuation.

(Insert Table 8)

Panel A shows that on average, high-valuation deals generate significant wealth losses greater than those incurred when the market is valued low. Overall, bidders conducting their deals in hgh-valuation markets lose 19.41% (0.000) from the date of announcement, and 20.45% (0.000) from the date of completion. On the other hand, those which announce their merger when the market is valued

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[13] We robustly check our results by shortening to long-term holding period from 36 to 24 months. Again, successful bidders significantly underperform, and this is particularly true for those which fail for exogenous reasons with a significant underperformance of -14.87% (0.022) from the date of announcement, and -16.52% (0.012) from the date of outcome. For brevity, the discussion will not be repeated.

low suffer long-run declines of 16.71% (0.000) while these increase to 18.51% (0.000) from the date of completion. Stratifying for method of payment, and Panel A shows significant wealth losses for all cash, stock and mixed financing deals, either in high or low valuation markets. Panel B also supports when the sample is focussed to looking at only those which succeed. However, there is no significant difference between the two market states in either Panel's A or B.

While significant wealth losses are found for UK bidders over the long-term in Panel's A and B, the comparative performance with the failed sample can shed more light on the significance of these losses. Because the failed sample is reduced in size however, it is difficult to obtain reliable results. There is nevertheless significant wealth destruction for UK bidders undertaking their deals when the market is highly valued and cash is used as payment, as shown in Panel F. Losses of up to 41.40% more are experienced by successful bidders relative to those which fail from the date of announcement. However, no significant evidence is found for stock-financed deals. This indicates once again that mergers do not significantly create value in the UK market. When the market is optimistic in the short-term as proxied by high-valuation markets, this does not produce better long-term results. UK bidders still continue to negatively underperform. This is also true for the sample conducted within low-valuation markets. Successful bidders either do not significantly create value or indeed significantly destroy it, particularly when the study focuses only on those which fail for exogenous reasons[14].

V. Concluding Remarks

Central to academic research over the past thirty years has been to address the riddle of both what merger wealth effects are and why mergers are initiated despite evidence to suggest significant wealth destruction for bidders (Jensen and Ruback, 1983; Chang, 1998). While targets earn significant gains from being acquired, the same cannot be said within the literature for bidders. This paper assesses the value creation for bidders through conducting a comprehensive analysis of the UK merger market using a new methodological approach which controls for the performance of successful bidders should their deals have not completed.

The question of how to truly measure performance is a well-discussed topic. Various benchmarks have been offered over the years as to how best we can define a merger as being a success or a failure for a particular firm. A recent strand of literature deriving from the work of Savor and Lu (2009) developed an approach whereby those deals which succeed are measured in terms of performance

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[14] The results and discussion above are repeated in Table 22 for a shorter post-merger period – twenty-four months. The results support the analysis above and so for brevity shall not be re-discussed.

against a benchmark group which acts as a control for the results of the bidder. The benchmark group offered is deals under the same circumstances which fail to complete. Most importantly in this setting is that while the deals which fail can be compared to those which succeed, for the true analysis, the deals which fail must do so for 'exogenous' reasons – that is, they must fail for circumstances outside of the bidders control. It is this approach which, for the first time in the UK, is adopted within this paper.

The results indicate that over the short-term period, bidders create significant short-term value. The successful sample significantly outperforms the benchmark group. However, this reverses over the long-term period where it would in effect, seem more attractive for the deal to have actually failed rather than completed. This is true regardless of the method of payment employed. Thus despite the US evidence suggesting successful market-timing creates value for bidders, the results generated in the UK market in this paper show the reverse. This significantly contributes to our understanding of the UK merger market re-emphasising that what holds in the US cannot simply be taken as given in other markets.

Furthermore, this paper contributes to the existing literature through assessing the performance of bidders while controlling for the valuation of the market. Croci, Petmezas and Vagenas-Nanos (2010) highlight the importance of the valuation of the market while Bouwman, Fuller and Nain (2009) additionally suggest that the valuation of the market can affect the quality of the acquisitions undertaken. The results of this paper suggest that while the market positively responds in the short-term to those deals announced when the market is valued highly, the quality of these acquisitions is questionable given the outperformance of those deals conducted in low-valuation periods. It is reasoned that due diligence is likely to be undertaken more rigorously in conservative, low-value periods. Thus, we recommend that bidders ensure they carefully process all information available elated to the target to ensure a better performance.

In conclusion, despite this evidence and partitioning of the sample for either firm or market valuation, the results remain consistently true that bidders fail to materialise any long-term wealth gains. Thus, further research is stimulated to truly ascertain what drives the UK merger market.

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Figure 1: Merger Bids by Method of Payment Over Time

This figure shows the number of bids for the dataset employed within this paper according to the year of merger announcement. The upper bar plots the number of deals financed using a mixture of cash and stock. The middle bar shows the number of deals financed using 100% stock. The lower bar plots the number of merger bids financed using 100% cash.

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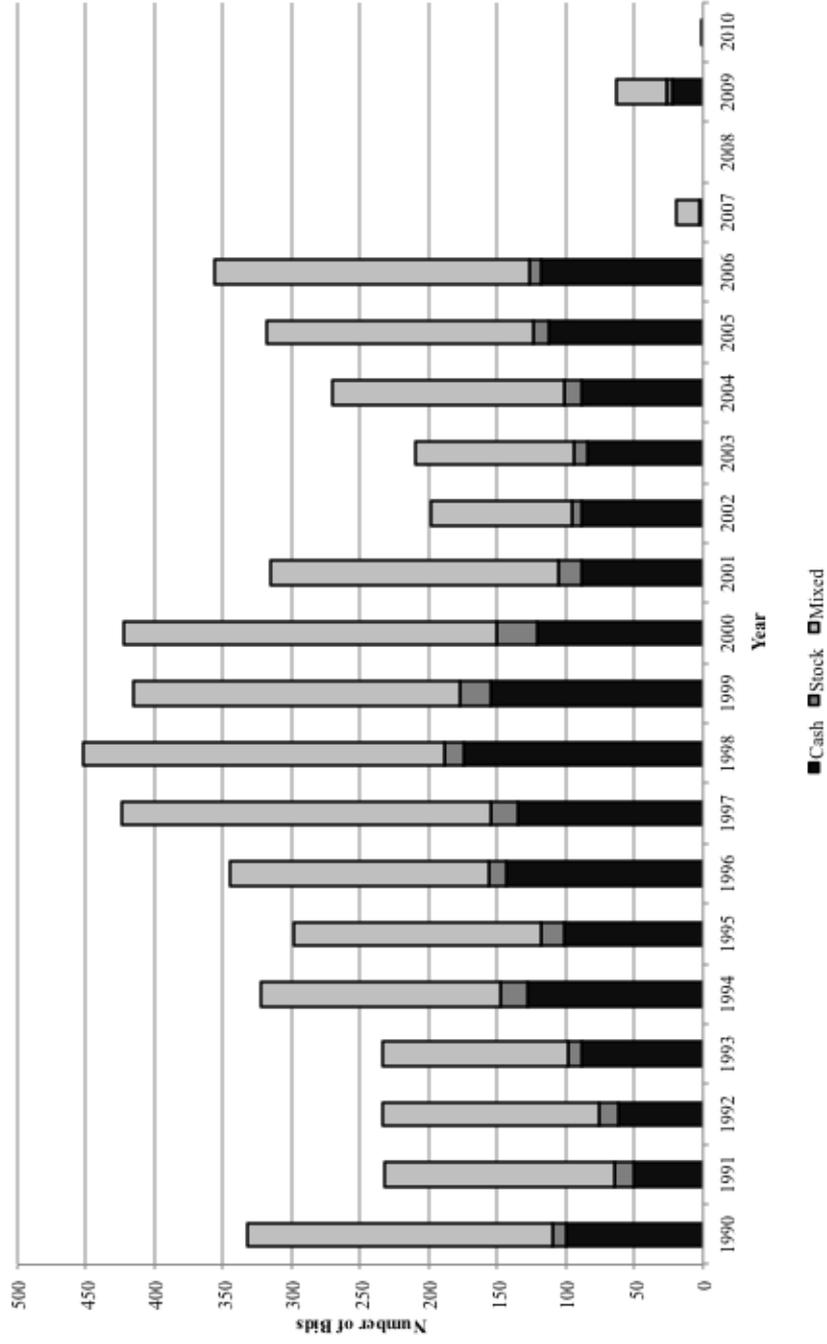
Table 1: Time-Series Distribution of Merger Bids

This table shows the time-series distribution of merger bids studied within this paper according to deal outcome and payment method. The Successful sample contains all bids which resulted in the completion of an acquisition. The All Failed sample contains all deals which unsuccessfully failed to complete. The Exogenous Failed sample contains only bids which failed for exogenous reasons, i.e. for reasons outside the control of the bidder, as outlined in the Data and Methodology section within the main text. The Cash (Stock) samples contain deals which were financed using 100% cash (stock). The Mixed sample contains deals financed using a mixture of cash and stock.

YEAR	SUCCESSFUL				ALL FAILED				EXOGENOUS FAILED			
	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED
1990	309	98	8	203	23	2	1	20	12	2	1	9
1991	206	49	14	143	26	1	1	24	14	0	1	13
1992	214	61	14	139	20	1	0	19	4	0	0	4
1993	223	87	9	127	10	2	0	8	4	1	0	3
1994	315	128	18	169	8	0	2	6	4	0	1	3
1995	284	96	15	173	14	5	2	7	5	3	1	1
1996	334	142	12	180	11	2	0	9	8	1	0	7
1997	416	131	18	267	8	4	2	2	6	4	2	0
1998	439	172	11	256	13	2	3	8	3	0	1	2
1999	395	150	20	225	20	5	3	12	12	1	3	8
2000	407	119	27	261	16	2	2	12	7	0	1	6
2001	306	86	15	205	9	2	2	5	2	1	0	1
2002	196	88	6	102	3	1	0	2	1	0	0	1
2003	203	85	9	109	7	0	0	7	5	0	0	5
2004	263	86	13	164	8	2	0	6	3	1	0	2
2005	306	110	8	188	12	3	3	6	9	3	1	5
2006	341	111	5	225	15	7	3	5	6	3	2	1
2007	19	3	0	16	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0
2009	63	22	4	37	0	0	0	0	0	0	0	0
2010	1	1	0	0	0	0	0	0	0	0	0	0
TOTAL	5240	1825	226	3189	223	41	24	158	105	20	14	71

Table 2: Summary Statistics

This table presents the summary statistics for three samples - 'S' refers to the Successful sample which contains deals which complete; 'F(A)' relates to the All Failed sample contains all deals which unsuccessfully failed to complete; and F(E) refers to the Exogenous Failed sample contains only bids which failed for exogenous reasons, i.e. for reasons outside the control of the bidder, as outlined in the Data and Methodology section within the main text. 'N' defines the number of bids in each category. The market value (MTBV) is the market value (market to book value) of the acquirer one month before the announcement of the deal (£ millions). To classify high and low valuation months we use a detrended PE proxy as detailed in the Data and Methodology section within the main text. This table reports the number of deals conducted in high and low valuation conditions for each deal category. The time interval measures the number of days between deal announcement and either completion or withdrawal for the successful/failed samples respectively. For the deal categories, we consider the cases of acquisitions of privately held targets, publicly listed targets, domestic targets, foreign targets, targets within the same industry ('Focussed'), targets within different industries ('Diversifying'), acquirers with high MTBV values ('glamour'), bidders with low MTBV values ('value'), small (big) bidders measured as the bottom (top) 30% of acquirers when ranked by their MV one month prior to the announcement of the deal and finally those deals financed using 100% cash ('Cash'), 100% stock ('Stock') or a mixture of cash and stock ('Mixed').

DEAL CATEGORIES	N			MARKET VALUE (£ mil)			MTBV			HIGH VALUATION MONTH			LOW VALUATION MONTH			TIME INTERVAL (Days)		
	S	F(A)	F(E)	S	F(A)	F(E)	S	F(A)	F(E)	S	F(A)	F(E)	S	F(A)	F(E)	S	F(A)	F(E)
ALL	5240	223	105	311	1164	1456	2.49	2.17	2.26	1730	87	41	1025	32	15	21	120	132
PRIVATE TARGET	3102	23	6	267	1001	2017	2.59	2	2	982	10	2	602	3	1	15	183	384
PUBLIC TARGET	328	142	77	436	1119	1296	2.32	2.13	2.29	128	56	32	58	23	11	49	101	123
SUBSIDIARY TARGET	1810	58	22	365	1339	1864	2.35	2.33	2.23	620	21	7	365	6	3	27	140	95
DOMESTIC	3534	142	75	251	712	1023	2.38	2.07	2.15	1180	58	30	689	21	11	16	81	83
FOREIGN	1706	81	30	435	1957	2540	2.72	2.35	2.52	550	29	11	336	11	4	31	188	254
FOCUSSED	1343	90	45	267	1252	1763	2.48	2.2	2.17	414	31	16	254	19	9	24	142	143
DIVERSIFYING	3897	133	60	326	1104	1226	2.49	2.15	2.33	1316	56	25	771	13	6	20	104	124
GLAMOUR	1315	54	23	380	1390	1752	4.44	3.86	4.25	465	16	9	246	8	2	23	99	84
VALUE	1174	53	20	244	867	1206	1.07	0.92	0.92	400	25	9	244	11	5	21	128	90
SMALL	1221	53	2	28	39	46	2.11	2.02	1.38	401	20	0	206	9	0	17	54	52
BIG	1219	57	14	924	3531	3648	2.75	2.34	2.08	415	16	4	257	8	2	29	187	211
CASH	1825	41	20	356	1398	2057	2.47	2.2	2.63	570	13	5	354	6	2	17	141	176
STOCK	226	24	14	216	338	354	2.54	2.38	2.65	72	9	7	40	5	2	38	76	59
MIXED	3188	158	71	292	1229	1505	2.5	2.13	2.08	1087	65	29	631	21	11	22.02	121	134

Table 3: 5 Day CARs for Full Samples

The following table presents the short-run 5 day CAR's (-2,+2) for the samples around the announcement date of the deal (DA) and the subsequent date of outcome (DO), which is either the date of effective completion (DE) or effective withdrawal (DW) for the successful and failed samples respectively. We measure the cumulative

$$CAR_i = \sum_{i=0}^{n} AR_i$$

abnormal return using the formula $CAR_i = \sum_{i=0}^{n} AR_i$. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The Failed Exogenous sample contains all deals which failed for reasons exogenous to bidder, i.e. for reasons outside the control of the bidder. Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes in Panel's E and F. The P value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted ***, ** and * respectively.

	ALL	CASH	STOCK	MIXED
PANEL A: OVERALL				
MEAN DA	1.00%***	1.27%***	0.10%	0.92%***
P-VALUE	(0.000)	(0.000)	(0.844)	(0.000)
MEAN DO	0.68%***	0.89%***	-0.14%	0.63%***
P-VALUE	(0.000)	(0.000)	(0.766)	(0.000)
N	5462	1866	250	3346
PANEL B: SUCCESSFUL				
MEAN DA	1.05%***	1.31%***	0.06%	0.98%***
P-VALUE	(0.000)	(0.000)	(0.909)	(0.000)
MEAN DE	0.74%***	0.91%***	-0.34%	0.72%***
P-VALUE	(0.000)	(0.000)	(0.470)	(0.000)
N	5239	1825	226	3188
PANEL C: FAILED				
MEAN DA	-0.34%	-0.83%	0.46%	-0.33%
P-VALUE	(0.351)	(0.253)	(0.729)	(0.443)
MEAN DW	-0.67%	-0.29%	1.79%	-1.15%
P-VALUE	(0.250)	(0.687)	(0.355)	(0.127)
N	223	41	24	158
PANEL D: FAILED EXOGENOUS				
MEAN DA	-0.65%	-0.20%	0.33%	-0.97%
P-VALUE	(0.181)	(0.685)	(0.827)	(0.135)
MEAN DW	-0.43%	-0.86%	0.26%	-0.45%
P-VALUE	(0.515)	(0.144)	(0.920)	(0.595)
N	105	20	14	71
PANEL E: SUCCESSFUL – FAILED				
DIFF DA	1.39%***	2.14%***	-0.40%	1.31%***
P-VALUE	(0.000)	(0.005)	(0.782)	(0.004)
DIFF DO	1.41%***	1.20%	-2.14%	1.86%**
P-VALUE	(0.017)	(0.105)	(0.286)	(0.015)
PANEL F: SUCCESSFUL – FAILED EXOGENOUS				
DIFF DA	1.70%***	1.51%***	-0.27%	1.95%***
P-VALUE	(0.001)	(0.007)	(0.869)	(0.004)
DIFF DO	1.17%*	1.77%***	-0.60%	1.17%
P-VALUE	(0.082)	(0.006)	(0.818)	(0.173)

Table 4: 5 Day CARs by Market Valuation

The following table presents the short-run 5 day CAR's (-2,+2) for the samples around the announcement date of the deal (DA) and the subsequent date of outcome (DO), which is either the date of effective completion (DE) or effective withdrawal (DW) for the successful and failed samples respectively. We measure the cumulative

$$CAR_i = \sum_{i=0}^{n} AR_i$$

abnormal return using the formula $CAR_i = \sum_{i=0}^{n} AR_i$. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The Failed Exogenous sample contains all deals which failed for reasons exogenous to bidder, i.e. for reasons outside the control of the bidder. For all samples, we examine those deals undertaken in months when the market was highly-valued or valued low, as per the methodology of Bouwman, Fuller and Nain (2009). Please see the Data and Methodology section for more information. Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes in Panel's E and F. The P-value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted ***, ** and * respectively.

	HIGH-VALUATION (HV)				LOW-VALUATION (LV)				DIFFERENTIAL: HV - LV			
	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED
PANEL A: FULL												
MEAN DA	1.44%***	1.67%***	1.14%	1.35%***	0.40%*	0.75%**	-0.37%	0.25%	1.05%***	0.92%**	1.51%	1.09%***
P-VALUE	(0.000)	(0.000)	(0.192)	(0.000)	(0.064)	(0.011)	(0.796)	(0.381)	(0.000)	(0.021)	(0.367)	(0.002)
MEAN DE	0.84%***	0.99%***	1.09%	0.74%***	0.14%	0.48%	0.15%	-0.05%	0.70%***	0.51%	0.94%	0.80%**
P-VALUE	(0.000)	(0.000)	(0.104)	(0.000)	(0.519)	(0.102)	(0.872)	(0.857)	(0.006)	(0.188)	(0.422)	(0.022)
N	1816	583	81	1152	1057	360	45	652				
PANEL B: SUCCESSFUL												
MEAN DA	1.48%***	1.69%***	1.16%	1.39%***	0.48%**	0.79%***	-0.37%	0.36%	1.00%***	0.90%***	1.53%	1.04%***
P-VALUE	(0.000)	(0.000)	(0.223)	(0.000)	(0.028)	(0.008)	(0.819)	(0.229)	(0.000)	(0.026)	(0.411)	(0.004)
MEAN DE	0.89%***	1.03%***	1.23%*	0.79%***	0.30%	0.48%	-0.26%	0.23%	0.59%**	0.55%	1.49%	0.56%*
P-VALUE	(0.000)	(0.000)	(0.071)	(0.000)	(0.138)	(0.108)	(0.800)	(0.398)	(0.016)	(0.158)	(0.229)	(0.084)
N	1729	570	72	1087	1025	354	40	631				
PANEL C: FAILED												
MEAN DA	0.68%	0.81%	0.98%	0.61%	-2.24%**	-1.77%	-0.39%	-2.82%**	2.92%***	2.58%	1.36%	3.43%**
P-VALUE	(0.295)	(0.612)	(0.656)	(0.424)	(0.017)	(0.457)	(0.815)	(0.025)	(0.010)	(0.360)	(0.612)	(0.018)
MEAN DW	-0.12%	-0.78%	-0.02%	0.00%	-4.96%*	0.64%	3.48%	-8.58%*	4.85%	-1.42%	-3.50%	8.58%*
P-VALUE	(0.890)	(0.542)	(0.995)	(0.997)	(0.096)	(0.774)	(0.159)	(0.052)	(0.116)	(0.577)	(0.322)	(0.057)
N	87	13	9	65	32	6	5	21				
PANEL D: FAILED EXOGENOUS												
MEAN DA	1.10%	1.25%	2.48%	0.74%	-2.34%	-0.23%	2.36%	-3.58%*	3.44%**	1.48%	0.12%	4.32%**
P-VALUE	(0.235)	(0.193)	(0.347)	(0.527)	(0.105)	(0.422)	(0.308)	(0.059)	(0.044)	(0.139)	(0.965)	(0.046)
MEAN DW	-1.18%	0.25%	-2.28%	-1.15%	-0.41%	-0.10%	0.59%	-0.65%	-0.77%	0.35%	-2.87%	-0.50%
P-VALUE	(0.426)	(0.839)	(0.465)	(0.559)	(0.676)	(0.973)	(0.914)	(0.582)	(0.664)	(0.907)	(0.637)	(0.825)
N	41	5	7	29	15	2	2	11				
PANEL E: SUCCESSFUL – FAILED												
DIFF DA	0.80%	0.88%	0.19%	0.79%	2.72%***	2.56%	0.02%	3.18%**				
P-VALUE	(0.227)	(0.588)	(0.936)	(0.320)	(0.005)	(0.298)	(0.994)	(0.014)				
DIFF DO	1.00%	1.81%	1.25%	0.78%	5.26%*	-0.16%	-3.75%	8.81%**				
P-VALUE	(0.238)	(0.177)	(0.667)	(0.455)	(0.079)	(0.944)	(0.146)	(0.047)				
PANEL F: SUCCESSFUL – FAILED EXOGENOUS												
DIFF DA	0.38%	0.44%	-1.32%	0.65%	2.82%**	1.02%**	-2.73%	3.94%**				
P-VALUE	(0.683)	(0.622)	(0.627)	(0.583)	(0.057)	(0.011)	(0.221)	(0.042)				
DIFF DO	2.07%	0.78%	3.51%	1.94%	0.71%	0.58%	-0.85%	0.88%				
P-VALUE	(0.168)	(0.546)	(0.282)	(0.330)	(0.482)	(0.842)	(0.877)	(0.469)				

Table 5: Multivariate Regressions for 5 Day CARs around the Date of Announcement

This table presents the results for the multivariate analysis of the full samples – both the successful and failed deals combined. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. We estimate regressions (1) to (6) where we model five-day CAR's. In models (1) to (6) we regress five-day CARs around the date of deal announcement on a set of explanatory variables. For a full definition of each variable please see the main text in the data and methodology section. We control for the possible existence of homoscedasticity and report the p-values in parentheses of robust T-Statistics. Significance at the 1% level, 5% level and 10% level are denoted ***, ** and * respectively.

	1	2	3	4	5	6
Constant	-0.006	0.010	-0.007	0.009	-0.006	0.010
	(0.186)	(0.176)	(0.113)	(0.224)	(0.204)	(0.180)
Successful	0.014***	0.012*	0.014***	0.012*	0.014***	0.012*
	(0.002)	(0.064)	(0.002)	(0.064)	(0.002)	(0.064)
High-Value Market			0.004*	0.004*		
			(0.059)	(0.092)		
Low-Value Market					-0.001	0.000
					(0.798)	(0.896)
FTSE Allshare	0.047***	0.047***	0.041***	0.041***	0.046***	0.048***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Ri-Rm	0.005*	0.006**	0.006**	0.006**	0.005*	0.006**
	(0.055)	(0.029)	(0.037)	(0.020)	(0.055)	(0.029)
Private		0.002		0.002		0.002
		(0.322)		(0.287)		(0.321)
Cash		0.005**		0.005**		0.005**
		(0.019)		(0.016)		(0.019)
Stock		-0.009*		-0.009*		-0.009*
		(0.045)		(0.047)		(0.045)
Diversifying		-0.001		-0.002		-0.001
		(0.485)		(0.465)		(0.483)
Cross-Border		0.001		0.001		0.001
		(0.743)		(0.729)		(0.741)
Relative Size		0.000*		0.000		0.000*
		(0.096)		(0.108)		(0.096)
Log of MV		-0.007***		-0.007***		-0.007***
		(0.000)		(0.000)		(0.000)
MTBV		0.000		0.000		0.000
		(0.610)		(0.618)		(0.608)
N	5462	5350	5462	5350	5462	5350
F-Statistic	14.61***	6.67***	11.85***	6.35***	10.97***	6.11***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
R2	0.008	0.014	0.009	0.014	0.008	0.014

Table 6: Multivariate Regressions for 5 Day CARs around the Date of Announcement for Exogenous Samples

This table presents the results for the multivariate analysis of the successful and failed exogenous samples combined. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed Exogenous sample contains all deals which failed for reasons exogenous to bidder, i.e. for reasons outside the control of the bidder. We estimate regressions (1) to (6) where we model five-day CAR's. In models (1) to (6) we regress five-day CARs around the date of deal announcement on a set of explanatory variables. For a full definition of each variable please see the main text in the data and methodology section. We control for the possible existence of homoscedasticity and report the p-values in parentheses of robust T-Statistics. Significance at the 1% level, 5% level and 10% level are denoted ***, ** and * respectively.

	1	2	3	4	5	6
Constant	-0.010	0.012	-0.011	0.011	-0.010	0.012
	(0.126)	(0.231)	(0.091)	(0.268)	(0.129)	(0.237)
Successful	0.018***	0.011	0.018***	0.011	0.018***	0.011
	(0.006)	(0.212)	(0.006)	(0.219)	(0.006)	(0.213)
High-Value Market			0.004*	0.004*		
			(0.073)	(0.088)		
Low-Value Market					0.000	0.001
					(0.988)	(0.846)
FTSE Allshare	0.048***		0.042***	0.041***	0.048***	0.048***
	(0.000)		(0.000)	(0.000)	(0.000)	(0.000)
Ri-Rm	0.005*		0.005*	0.006**	0.005*	0.005**
	(0.080)		(0.058)	(0.035)	(0.080)	(0.048)
Private		0.002		0.002		0.002
		(0.331)		(0.295)		(0.330)
Cash		0.005**		0.005**		0.005**
		(0.017)		(0.014)		(0.017)
Stock		-0.010**		-0.010**		-0.010**
		(0.031)		(0.032)		(0.031)
Diversifying		-0.002		-0.002		-0.002
		(0.454)		(0.435)		(0.451)
Cross-Border		0.001		0.001		0.001
		(0.653)		(0.642)		(0.651)
Relative Size		0.000*		0.000		0.000*
		(0.097)		(0.109)		(0.097)
Log of MV		-0.007***		-0.007***		-0.007***
		(0.000)		(0.000)		(0.000)
MTBV		0.000		0.000		0.000
		(0.592)		(0.598)		(0.589)
N	5344	5300	5344	5300	5344	5300
F-Statistic	13.67***	6.31***	11.06***	6.03***	10.25***	5.78***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
R2	0.008	0.013	0.008	0.014	0.008	0.013

The following table presents the long-run 36 month BHAR's for the samples from the announcement date of the deal (DA) and the subsequent date of outcome (DO), which is either the date of effective completion (DE) or effective withdrawal (DW) for the successful and failed samples respectively. We measure the buy-and-hold abnormal return using the formula $BHAR_{it} = \prod_{t=0}^{T}[1 + R_{it}] - \prod_{t=0}^{T}[1 + R_{mt}]$

$$BHAR_{it} = \prod_{t=0}^{T}[1 + R_{it}] - \prod_{t=0}^{T}[1 + R_{mt}]$$

. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The Failed Exogenous sample contains all deals which failed for reasons exogenous to bidder, i.e. for reasons outside the control of the bidder. Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes in Panel's E and F. The P value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted ***, ** and * respectively.

	ALL	CASH	STOCK	MIXED
	PANEL A: OVERALL			
MEAN DA	-23.09%***	-13.27%***	-43.21%***	-27.07%***
P-VALUE	(0.000)	(0.000)	(0.000)	(0.000)
MEAN DO	-24.05%***	-14.10%***	-44.29%***	-28.08%***
P-VALUE	(0.000)	(0.000)	(0.000)	(0.000)
N	5462	1866	250	3346
	PANEL B: SUCCESSFUL			
MEAN DA	-23.60%***	-13.29%***	-47.09%***	-27.83%***
P-VALUE	(0.000)	(0.000)	(0.000)	(0.000)
MEAN DE	-24.42%***	-13.98%***	-47.02%***	-28.80%***
P-VALUE	(0.000)	(0.000)	(0.000)	(0.000)
N	5239	1825	226	3188
	PANEL C: FAILED			
MEAN DA	-11.27%*	-12.35%	-6.65%	-11.69%
P-VALUE	(0.058)	(0.192)	(0.740)	(0.118)
MEAN DW	-15.14%**	-19.53%**	-18.57%	-13.48%*
P-VALUE	(0.011)	(0.048)	(0.262)	(0.077)
N	223	41	24	158
	PANEL D: FAILED EXOGENOUS			
MEAN DA	3.78%	-9.89%	-20.73%	12.47%
P-VALUE	(0.695)	(0.450)	(0.464)	(0.328)
MEAN DW	-3.58%	-27.48%	-46.22%	11.56%
P-VALUE	(0.709)	(0.050)	(0.014)	(0.374)
N	105	20	14	71
	PANEL E: SUCCESSFUL – FAILED			
DIFF DA	-12.32%**	-0.94%	-40.44%*	-16.14%**
P-VALUE	(0.042)	(0.921)	(0.059)	(0.035)
DIFF DO	-9.29%	5.55%	-28.45%	-15.32%**
P-VALUE	(0.123)	(0.572)	(0.105)	(0.048)
	PANEL F: SUCCESSFUL - FAILED EXOGENOUS			
DIFF DA	-27.67%***	-3.57%	-27.21%	-40.63%***
P-VALUE	(0.005)	(0.786)	(0.347)	(0.002)
DIFF DO	-21.15%**	13.32%	-1.64%	-40.70%***
P-VALUE	(0.030)	(0.328)	(0.925)	(0.003)

Table 8: 36 Month BHARs by Market Valuation

The following table presents the long-run 36 month BHAR's for the samples from the announcement date of the deal (DA) and the subsequent date of outcome (DO), which is either the date of effective completion (DE) or effective withdrawal (DW) for the successful and failed samples respectively. We measure the buy-and-hold abnormal return using the formula $BHAR_{it} = \prod_{t=0}^{T}[1 + R_{it}] - \prod_{t=0}^{T}[1 + R_{mt}]$

$$BHAR_{it} = \prod_{t=0}^{T}[1 + R_{it}] \, | \, \prod_{t=0}^{T}[1 + R_{mt}]$$

. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The Failed Exogenous sample contains all deals which failed for reasons exogenous to bidder, i.e. for reasons outside the control of the bidder. For all samples, we examine those deals undertaken in months when the market was highly-valued or valued low, as per the methodology of Bouwman, Fuller and Nain (2009). Please see the Data and Methodology section for more information. Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes in Panel's E and F. The P-value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted ***, ** and * respectively.

	HIGH-VALUATION (HV)				LOW-VALUATION (LV)				DIFFERENTIAL: HV - LV			
	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED
PANEL A: FULL												
MEAN DA	-19.41%***	-8.62%***	-38.13%***	-23.00%***	-16.71%***	-3.19%	-29.55%**	-23.26%***	-2.71%	-5.43%	-8.58%	0.25%
P-VALUE	(0.000)	(0.007)	(0.000)	(0.000)	(0.000)	(0.490)	(0.029)	(0.000)	(0.418)	(0.332)	(0.583)	(0.953)
MEAN DE	-20.45%***	-9.96%***	-39.26%***	-23.84%***	-18.51%***	-4.41%	-38.14%***	-24.91%***	-1.94%	-5.55%	-1.11%	1.07%
P-VALUE	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.340)	(0.003)	(0.000)	(0.555)	(0.320)	(0.938)	(0.797)
N	1783	583	81	1152	1056	360	45	652				
PANEL B: SUCCESSFUL												
MEAN DA	-19.81%***	-8.80%***	-36.91%***	-23.89%***	-18.03%***	-3.02%	-47.65%***	-24.54%***	-1.78%	-5.78%	10.74%	0.65%
P-VALUE	(0.000)	(0.006)	(0.000)	(0.000)	(0.000)	(0.516)	(0.000)	(0.000)	(0.592)	(0.306)	(0.449)	(0.877)
MEAN DE	-20.61%***	-9.76%***	-38.17%***	-24.54%***	-19.42%***	-4.07%	-48.13%***	-26.18%***	-1.20%	-5.70%	9.95%	1.63%
P-VALUE	(0.000)	(0.002)	(0.000)	(0.000)	(0.000)	(0.385)	(0.000)	(0.000)	(0.715)	(0.312)	(0.490)	(0.689)
N	1695	570	72	1087	1024	354	40	631				
PANEL C: FAILED												
MEAN DA	-11.17%	-0.62%	-47.86%**	-8.19%	25.60%	-13.14%	115.26%*	15.33%	-36.77%	12.52%	-163.12%**	-23.52%
P-VALUE	(0.184)	(0.968)	(0.030)	(0.432)	(0.357)	(0.766)	(0.066)	(0.689)	(0.207)	(0.787)	(0.020)	(0.553)
MEAN DW	-16.80%*	-18.60%	-47.93%**	-12.13%	10.54%	-24.76%	41.72%	13.20%	-27.34%	6.16%	-89.65%	-25.33%
P-VALUE	(0.064)	(0.363)	(0.023)	(0.278)	(0.685)	(0.462)	(0.425)	(0.724)	(0.322)	(0.871)	(0.132)	(0.517)
N	87	13	9	65	32	6	5	21				
PANEL D: FAILED EXOGENOUS												
MEAN DA	-6.42%	32.39%*	-48.41%*	-2.98%	83.78%	30.16%	158.24%	79.99%	-90.20%*	2.23%	-206.65%	-82.97%
P-VALUE	(0.525)	(0.070)	(0.057)	(0.810)	(0.112)	(0.802)	(0.328)	(0.245)	(0.094)	(0.985)	(0.246)	(0.235)
MEAN DW	-16.74%	-14.78%	-48.22%*	-9.47%	59.52%	-24.12%	-34.17%	91.77%	-76.26%	9.34%	-14.05%	-101.24%
P-VALUE	(0.135)	(0.712)	(0.050)	(0.484)	(0.230)	(0.700)	(0.608)	(0.168)	(0.137)	(0.889)	(0.823)	(0.138)
N	41	5	7	29	15	2	2	11				
PANEL E: SUCCESSFUL – FAILED												
DIFF DA	-8.65%	-8.19%	10.95%	-15.69%	-43.63%	10.12%	-162.91%**	-39.87%				
P-VALUE	(0.314)	(0.603)	(0.600)	(0.144)	(0.123)	(0.819)	(0.022)	(0.305)				
DIFF DO	-3.81%	8.83%	9.76%	-12.41%	-29.96%	20.69%	-89.85%	-39.38%				
P-VALUE	(0.678)	(0.665)	(0.620)	(0.276)	(0.256)	(0.538)	(0.129)	(0.301)				
PANEL F: SUCCESSFUL – FAILED EXOGENOUS												
DIFF DA	-13.42%	-41.40%**	11.50%	-21.36%	-101.81%**	-33.18%	-205.89%	-104.57%				
P-VALUE	(0.195)	(0.033)	(0.623)	(0.098)	(0.059)	(0.784)	(0.257)	(0.138)				
DIFF DO	-3.89%	4.79%	10.05%	-15.53%	-78.94%	20.05%	-13.96%	-117.99%*				
P-VALUE	(0.728)	(0.904)	(0.653)	(0.261)	(0.119)	(0.745)	(0.822)	(0.086)				

Appendix

Appendix 1: 3 Day CARs for Full Samples

The following table presents the short-run 3 day CAR's (-1,+1) for the samples around the announcement date of the deal (DA) and the subsequent date of outcome (DO), which is either the date of effective completion (DE) or effective withdrawal (DW) for the successful and failed samples respectively. We measure the cumulative

$$CAR_i = \sum_{i=0}^{n} AR_i$$

abnormal return using the formula $CAR_i = \sum_{i=0}^{n} AR_i$. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The Failed Exogenous sample contains all deals which failed for reasons exogenous to bidder, i.e. for reasons outside the control of the bidder. Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes in Panel's E and F. The P value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted ***, ** and * respectively.

	ALL	CASH	STOCK	MIXED
PANEL A: OVERALL				
MEAN DA	0.83%***	0.97%***	0.24%	0.79%***
P-VALUE	(0.000)	(0.000)	(0.594)	(0.000)
MEAN DO	0.56%***	0.69%***	-0.26%	0.55%***
P-VALUE	(0.000)	(0.000)	(0.532)	(0.000)
N	5462	1866	250	3346
PANEL B: SUCCESSFUL				
MEAN DA	0.88%***	0.91%***	-0.34%	0.85%***
P-VALUE	(0.000)	(0.000)	(0.470)	(0.000)
MEAN DE	0.62%***	0.72%***	-0.26%	0.63%***
P-VALUE	(0.000)	(0.000)	(0.560)	(0.000)
N	5239	1825	226	3188
PANEL C: FAILED				
MEAN DA	-0.35%	-0.76%	0.28%	-0.34%
P-VALUE	(0.257)	(0.291)	(0.827)	(0.326)
MEAN DW	-0.98%*	-0.66%	-0.28%	-1.17%
P-VALUE	(0.079)	(0.278)	(0.816)	(0.120)
N	223	41	24	158
PANEL D: FAILED EXOGENOUS				
MEAN DA	-0.50%	0.45%	-0.03%	-0.86%
P-VALUE	(0.225)	(0.344)	(0.981)	(0.107)
MEAN DW	-0.62%	-1.02%	-0.91%	-0.45%
P-VALUE	(0.273)	(0.114)	(0.538)	(0.561)
N	105	20	14	71
PANEL E: SUCCESSFUL – FAILED				
DIFF DA	1.23%***	1.68%**	-0.63%	1.19%***
P-VALUE	(0.000)	(0.026)	(0.651)	(0.001)
DIFF DO	1.61%***	1.38%**	0.02%	1.81%**
P-VALUE	(0.005)	(0.029)	(0.990)	(0.018)
PANEL F: SUCCESSFUL - FAILED EXOGENOUS				
DIFF DA	1.38%***	0.56%	0.27%	1.71%***
P-VALUE	(0.001)	(0.262)	(0.854)	(0.002)
DIFF DO	1.24%**	1.74%**	0.65%	1.08%
P-VALUE	(0.030)	(0.012)	(0.673)	(0.165)

The following table presents the short-run 5 day CAR's (-2,+2) for the samples around the announcement date of the deal (DA) and the subsequent date of outcome (DO), which is either the date of effective completion (DE) or effective withdrawal (DW) for the overvalued and undervalued successful and failed samples respectively.

$$CAR_i = \sum_{i=0}^{n} AR_i$$

We measure the cumulative abnormal return using the formula $CAR_i = \sum_{i=0}^{n} AR_i$. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The Failed Exogenous sample contains all deals which failed for reasons exogenous to bidder, i.e. for reasons outside the control of the bidder. For all samples, we examine those deals for which the acquirer was either over or undervalued during the acquisition process. The included deals in the overvalued (undervalued) sample are those in which the acquirer is deemed to be overvalued (undervalued). The acquirer's PE on the month of announcement is compared with a historical firm PE average of 24 months (-12,+12) around the deal announcement. If the announcement month PE is higher (lower) than the historical average, the firm is classified as highly-valued (valued-low). We then take the top (bottom) 30% of these firms as Overvalued (Undervalued). Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes in Panel's E and F. The P-value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted ***, ** and * respectively.

	OVERVALUED (OVER)				UNDERVALUED (UNDER)				DIFFERENTIAL: OVER - UNDER			
	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED
PANEL A: FULL												
MEAN DA	0.69%***	0.88%***	-0.05%	0.63%***	1.26%***	1.43%***	0.90%	1.18%***	-0.57%***	-0.55%**	-0.95%	-0.54%
P-VALUE	(0.000)	(0.000)	(0.938)	(0.000)	(0.000)	(0.000)	(0.378)	(0.000)	(0.001)	(0.044)	(0.430)	(0.018)
MEAN DE	0.45%***	0.32%*	0.18%	0.55%***	1.01%***	1.18%***	1.10%	0.90%***	-0.56%***	-0.86%***	-0.93%	-0.35%
P-VALUE	(0.000)	(0.054)	(0.778)	(0.000)	(0.000)	(0.000)	(0.108)	(0.000)	(0.000)	(0.001)	(0.316)	(0.071)
N	1938	684	78	1176	2404	897	73	1434				
PANEL B: SUCCESSFUL												
MEAN DA	0.71%***	0.91%***	-0.31%	0.66%***	1.35%***	1.49%***	1.19%	1.28%***	-0.64%***	-0.58%**	-1.50%	-0.61%***
P-VALUE	(0.000)	(0.000)	(0.631)	(0.000)	(0.000)	(0.000)	(0.292)	(0.000)	(0.000)	(0.037)	(0.248)	(0.009)
MEAN DE	0.44%***	0.35%**	-0.20%	0.53%***	1.06%***	1.21%***	1.17%*	0.95%***	-0.62%***	-0.86%***	-1.37%	-0.42%**
P-VALUE	(0.000)	(0.036)	(0.668)	(0.000)	(0.000)	(0.000)	(0.100)	(0.000)	(0.000)	(0.001)	(0.106)	(0.037)
N	1855	668	69	1118	2305	876	64	1365				
PANEL C: FAILED												
MEAN DA	0.16%	-0.34%	1.94%	0.02%	-0.91%	-1.04%	-1.16%	-0.83%	1.07%	0.70%	3.10%	0.85%
P-VALUE	(0.743)	(0.614)	(0.475)	(0.968)	(0.103)	(0.405)	(0.598)	(0.205)	(0.149)	(0.619)	(0.368)	(0.317)
MEAN DW	0.82%	-0.93%	3.04%	0.95%	0.00%	-0.10%	0.61%	-0.05%	0.82%	-0.83%	2.43%	1.00%
P-VALUE	(0.227)	(0.493)	(0.488)	(0.132)	(0.999)	(0.905)	(0.808)	(0.916)	(0.306)	(0.595)	(0.624)	(0.205)
N	83	16	9	58	99	21	9	69				
PANEL D: FAILED EXOGENOUS												
MEAN DA	0.13%	-0.01%	-1.79%*	1.20%	-1.41%*	-0.36%	1.67%	-2.65%**	1.54%	0.35%	-3.46%	3.85%**
P-VALUE	(0.838)	(0.988)	(0.065)	(0.251)	(0.064)	(0.554)	(0.740)	(0.026)	(0.119)	(0.746)	(0.508)	(0.014)
MEAN DW	-0.10%	-1.52%	1.28%	-0.06%	0.14%	-0.32%	-2.09%	0.00%	-0.24%	-1.20%	3.37%	-0.06%
P-VALUE	(0.893)	(0.139)	(0.778)	(0.911)	(0.831)	(0.653)	(0.583)	(0.999)	(0.812)	(0.313)	(0.557)	(0.957)
N	44	9	7	24	46	11	4	20				
PANEL E: SUCCESSFUL – FAILED												
DIFF DA	0.55%	1.25%*	-2.25%	0.64%	2.26%***	2.53%*	2.35%	2.11%***				
P-VALUE	(0.274)	(0.087)	(0.421)	(0.268)	(0.000)	(0.055)	(0.343)	(0.002)				
DIFF DO	-0.38%	1.28%	-3.24%	-0.42%	1.06%**	1.31%	0.56%	1.00%**				
P-VALUE	(0.578)	(0.353)	(0.464)	(0.511)	(0.019)	(0.127)	(0.830)	(0.049)				
PANEL F: SUCCESSFUL – FAILED EXOGENOUS												
DIFF DA	0.58%	0.92%	1.48%	-0.37%	2.76%***	1.85%**	-0.48%	4.24%***				
P-VALUE	(0.374)	(0.329)	(0.167)	(0.723)	(0.001)	(0.011)	(0.925)	(0.001)				
DIFF DO	0.54%	1.87%*	-1.48%	0.79%	0.92%	1.53%*	3.26%	1.16%				
P-VALUE	(0.480)	(0.080)	(0.746)	(0.167)	(0.121)	(0.055)	(0.413)	(0.260)				

Appendix 3: 3 Day CARs by Firm Valuation

The following table presents the short-run 3 day CAR's (-2,+2) for the samples around the announcement date of the deal (DA) and the subsequent date of outcome (DO), which is either the date of effective completion (DE) or effective withdrawal (DW) for the overvalued and undervalued successful and failed samples respectively.

We measure the cumulative abnormal return using the formula $CAR_i = \sum_{i=0}^{n} AR_i$

$$CAR_i = \sum_{i=0}^{n} AR_i$$

. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The Failed Exogenous sample contains all deals which failed for reasons exogenous to bidder, i.e. for reasons outside the control of the bidder. For all samples, we examine those deals for which the acquirer was either over or undervalued during the acquisition process. The included deals in the overvalued (undervalued) sample are those in which the acquirer is deemed to be overvalued (undervalued). The acquirer's PE on the month of announcement is compared with a historical firm PE average of 24 months (-12,+12) around the deal announcement. If the announcement month PE is higher (lower) than the historical average, the firm is classified as highly-valued (valued-low). We then take the top (bottom) 30% of these firms as Overvalued (Undervalued). Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes in Panel's E and F. The P-value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted ***, ** and * respectively.

	OVERVALUED (OVER)				UNDERVALUED (UNDER)				DIFFERENTIAL: OVER - UNDER			
	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED
PANEL A: FULL												
MEAN DA	0.52%***	0.69%***	-0.09%	0.46%***	1.00%***	1.02%***	1.30%	0.97%***	-0.48%***	-0.33%	-1.40%	-0.51%***
P-VALUE	(0.000)	(0.000)	(0.875)	(0.001)	(0.000)	(0.000)	(0.164)	(0.000)	(0.001)	(0.131)	(0.206)	(0.008)
MEAN DE	0.34%***	0.29%**	-0.55%	0.42%***	0.78%***	0.78%***	1.23%**	0.76%***	-0.44%***	-0.49%**	-1.78%***	-0.33%**
P-VALUE	(0.000)	(0.022)	(0.107)	(0.000)	(0.000)	(0.000)	(0.022)	(0.000)	(0.000)	(0.011)	(0.005)	(0.037)
N	1938	684	78	1176	2404	897	73	1434				
PANEL B: SUCCESSFUL												
MEAN DA	0.55%***	0.71%***	-0.31%	0.50%***	1.06%***	1.06%***	1.67%	1.03%***	-0.52%***	-0.35%	-1.98%*	-0.53%***
P-VALUE	(0.000)	(0.000)	(0.590)	(0.000)	(0.000)	(0.000)	(0.108)	(0.000)	(0.001)	(0.107)	(0.095)	(0.007)
MEAN DE	0.34%***	0.32%**	-0.45%	0.39%**	0.82%***	0.82%***	1.36%**	0.80%***	-0.49%***	-0.50%**	-1.80%***	-0.41%**
P-VALUE	(0.000)	(0.012)	(0.167)	(0.001)	(0.000)	(0.000)	(0.013)	(0.000)	(0.000)	(0.012)	(0.004)	(0.012)
N	1855	668	69	1118	2305	876	64	1365				
PANEL C: FAILED												
MEAN DA	-0.01%	0.02%	1.56%	-0.27%	-0.48%	-0.79%	-1.34%	-0.27%	0.46%	0.81%	2.90%	0.00%
P-VALUE	(0.977)	(0.981)	(0.588)	(0.604)	(0.239)	(0.455)	(0.424)	(0.548)	(0.457)	(0.510)	(0.381)	(0.996)
MEAN DW	0.38%	-1.02%	-1.32%	1.03%	-0.22%	-0.65%	0.34%	-0.16%	0.60%	-0.37%	-1.65%	1.19%*
P-VALUE	(0.422)	(0.329)	(0.444)	(0.066)	(0.511)	(0.447)	(0.876)	(0.610)	(0.300)	(0.780)	(0.543)	(0.064)
N	83	16	9	58	99	21	9	69				
PANEL D: FAILED EXOGENOUS												
MEAN DA	0.09%	0.16%	-1.71%	0.92%	-0.88%	0.69%	-0.10%	-1.75%**	0.97%	-0.53%	-1.61%	2.67%**
P-VALUE	(0.874)	(0.838)	(0.108)	(0.318)	(0.105)	(0.281)	(0.981)	(0.023)	(0.212)	(0.588)	(0.699)	(0.025)
MEAN DW	-0.44%	-1.41%	-0.85%	-0.03%	-0.11%	-0.71%	-1.83%	-0.02%	-0.33%	-0.70%	0.98%	-0.01%
P-VALUE	(0.351)	(0.271)	(0.698)	(0.941)	(0.810)	(0.270)	(0.563)	(0.983)	(0.607)	(0.612)	(0.789)	(0.984)
N	44	9	7	24	46	11	4	20				
PANEL E: SUCCESSFUL – FAILED												
DIFF DA	0.56%	0.69%	-1.87%	0.77%	1.54%***	1.85%*	3.01%	1.30%***				
P-VALUE	(0.250)	(0.290)	(0.527)	(0.151)	(0.000)	(0.092)	(0.132)	(0.006)				
DIFF DO	-0.04%	1.34%	0.87%	-0.64%	1.04%***	1.46%*	1.02%	0.97%***				
P-VALUE	(0.926)	(0.208)	(0.615)	(0.262)	(0.003)	(0.099)	(0.648)	(0.006)				
PANEL F: SUCCESSFUL – FAILED EXOGENOUS												
DIFF DA	0.45%	0.55%	1.40%	-0.30%	1.94%***	0.37%	1.77%	3.08%***				
P-VALUE	(0.426)	(0.491)	(0.217)	(0.747)	(0.001)	(0.571)	(0.673)	(0.000)				
DIFF DO	0.77%	1.73%	0.40%	0.51%	0.93%**	1.53%	3.19%	1.03%				
P-VALUE	(0.109)	(0.186)	(0.855)	(0.265)	(0.045)	(0.033)	(0.344)	(0.163)				

Appendix 4: 3 Day CARs by Market Valuation

The following table presents the short-run 3 day CAR's (-1,+1) for the samples around the announcement date of the deal (DA) and the subsequent date of outcome (DO), which is either the date of effective completion (DE) or effective withdrawal (DW) for the successful and failed samples respectively. We measure the cumulative

$$CAR_i = \sum_{i=0}^{n} AR_i$$

abnormal return using the formula $CAR_i = \sum_{i=0}^{n} AR_i$. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The Failed Exogenous sample contains all deals which failed for reasons exogenous to bidder, i.e. for reasons outside the control of the bidder. For all samples, we examine those deals undertaken in months when the market was highly-valued or valued low, as per the methodology of Bouwman, Fuller and Nain (2009). Please see the Data and Methodology section for more information. Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes in Panel's E and F. The P-value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted ***, ** and * respectively.

	HIGH-VALUATION (HV)				LOW-VALUATION (LV)				DIFFERENTIAL: HV - LV			
	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED
PANEL A: FULL												
MEAN DA	1.24%***	1.39%***	1.25%	1.17%***	0.35%**	0.55%**	0.01%	0.27%	0.89%***	0.85%**	1.24%	0.89%***
P-VALUE	(0.000)	(0.000)	(0.120)	(0.000)	(0.043)	(0.028)	(0.993)	(0.243)	(0.000)	(0.013)	(0.405)	(0.002)
MEAN DE	0.76%***	0.83%***	0.67%	0.72%***	0.09%	0.31%	0.50%	-0.06%	0.66%***	0.52%*	0.18%	0.78%***
P-VALUE	(0.000)	(0.000)	(0.164)	(0.000)	(0.619)	(0.184)	(0.571)	(0.816)	(0.002)	(0.095)	(0.859)	(0.008)
N	1816	583	81	1152	1057	360	45	652				
PANEL B: SUCCESSFUL												
MEAN DA	1.28%***	1.43%***	1.30%	1.21%***	0.41%**	0.56%**	0.06%	0.35%	0.87%***	0.87%**	1.24%	0.85%***
P-VALUE	(0.000)	(0.000)	(0.140)	(0.000)	(0.020)	(0.025)	(0.965)	(0.137)	(0.000)	(0.011)	(0.454)	(0.004)
MEAN DE	0.80%***	0.86%***	0.75%	0.77%***	0.25%	0.32%	0.19%	0.21%	0.55%***	0.54%*	0.56%	0.55%**
P-VALUE	(0.000)	(0.000)	(0.120)	(0.000)	(0.116)	(0.168)	(0.845)	(0.320)	(0.005)	(0.086)	(0.596)	(0.032)
N	1729	570	72	1087	1025	354	40	631				
PANEL C: FAILED												
MEAN DA	0.43%	-0.22%	0.83%	0.51%	-1.55%*	-0.39%	-0.40%	-2.16%*	1.99%*	0.17%	1.23%	2.67%*
P-VALUE	(0.385)	(0.870)	(0.635)	(0.374)	(0.094)	(0.862)	(0.802)	(0.085)	(0.058)	(0.948)	(0.595)	(0.052)
MEAN DW	-0.05%	-0.60%	0.06%	0.04%	-5.05%	-0.44%	2.98%	-8.27%*	5.00%	-0.16%	-2.92%	8.32%*
P-VALUE	(0.944)	(0.621)	(0.977)	(0.964)	(0.111)	(0.865)	(0.202)	(0.080)	(0.124)	(0.124)	(0.333)	(0.084)
N	87	13	9	65	32	6	5	21				
PANEL D: FAILED EXOGENOUS												
MEAN DA	0.62%	0.49%	1.75%	0.37%	-1.43%	2.10%	2.59%	-2.80%	2.05%	-1.61%	-0.84%	3.17%*
P-VALUE	(0.418)	(0.612)	(0.428)	(0.701)	(0.291)	(0.609)	(0.457)	(0.093)	(0.186)	(0.684)	(0.802)	(0.092)
MEAN DW	-1.30%	0.25%	-2.07%	-1.38%	0.01%	-1.23%	0.99%	0.06%	-1.31%	1.48%	-3.06%	-1.44%
P-VALUE	(0.332)	(0.855)	(0.353)	(0.450)	(0.986)	(0.422)	(0.855)	(0.940)	(0.389)	(0.405)	(0.603)	(0.469)
N	41	5	7	29	15	2	2	11				
PANEL E: SUCCESSFUL – FAILED												
DIFF DA	0.85%	1.65%	0.47%	0.70%	1.97%**	0.95%	0.46%	2.52%*				
P-VALUE	(0.102)	(0.245)	(0.808)	(0.245)	(0.039)	(0.676)	(0.825)	(0.051)				
DIFF DO	0.85%	1.46%	0.69%	0.72%	5.30%*	0.77%	-2.79%	8.49%*				
P-VALUE	(0.263)	(0.248)	(0.758)	(0.445)	(0.096)	(0.770)	(0.245)	(0.074)				
PANEL F: SUCCESSFUL – FAILED EXOGENOUS												
DIFF DA	0.66%	0.94%	-0.45%	0.84%	1.84%	-1.54%	-2.53%	3.15%*				
P-VALUE	(0.395)	(0.360)	(0.846)	(0.396)	(0.182)	(0.696)	(0.447)	(0.064)				
DIFF DO	2.10%	0.61%	2.82%	2.15%	0.24%	1.55%	-0.80%	0.15%				
P-VALUE	(0.122)	(0.666)	(0.225)	(0.245)	(0.756)	(0.340)	(0.882)	(0.858)				

The following table presents the long-run 36 month BHAR's for the samples from the announcement date of the deal (DA) and the subsequent date of outcome (DO), which is either the date of effective completion (DE) or effective withdrawal (DW) for the overvalued and undervalued successful and failed samples respectively. We measure the buy-and-hold abnormal return using the formula $BHAR_{it} = \prod_{t=0}^{T}[1 + R_{it}] - \prod_{t=0}^{T}[1 + R_{mt}]$

$$BHAR_{it} = \prod_{t=0}^{T}[1 + R_{it}] \mid \prod_{t=0}^{T}[1 + R_{mt}]$$

. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The Failed Exogenous sample contains all deals which failed for reasons exogenous to bidder, i.e. for reasons outside the control of the bidder. For all samples, we examine those deals for which the acquirer was either over or undervalued during the acquisition process. The included deals in the overvalued (undervalued) sample are those in which the acquirer is deemed to be overvalued (undervalued). The acquirer's PE on the month of announcement is compared with a historical firm PE average of 24 months (-12,+12) around the deal announcement. If the announcement month PE is higher (lower) than the historical average, the firm is classified as highly-valued (valued-low). We then take the top (bottom) 30% of these firms as Overvalued (Undervalued). Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes in Panel's E and F. The P-value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted ***, ** and * respectively.

	OVERVALUED (OVER)				UNDERVALUED (UNDER)				DIFFERENTIAL: OVER – UNDER			
	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED
PANEL A: FULL												
MEAN DA	-27.97%***	-20.99%***	-41.86%***	-30.71%***	-12.87%***	-2.72%	-22.56%**	-18.47%***	-15.10%***	-18.27%***	-19.30%	-12.24%***
P-VALUE	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.356)	(0.012)	(0.000)	(0.000)	(0.000)	(0.128)	(0.000)
MEAN DE	-27.97%***	-20.89%***	-46.60%***	-30.45%***	-14.70%***	-4.43%	-23.77%***	-20.37%***	-13.27%***	-16.46%***	-22.83%**	-10.08%***
P-VALUE	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.127)	(0.006)	(0.000)	(0.000)	(0.000)	(0.055)	(0.000)
N	1921	684	78	1176	2375	897	73	1434				
PANEL B: SUCCESSFUL												
MEAN DA	-28.40%***	-21.39%***	-46.82%***	-31.02%***	-13.10%***	-2.29%	-26.07%***	-19.15%***	-15.30%***	-19.10%***	-20.75%	-11.87%***
P-VALUE	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.444)	(0.009)	(0.000)	(0.000)	(0.000)	(0.113)	(0.000)
MEAN DE	-28.36%***	-21.33%***	-47.67%***	-30.93%***	-14.80%***	-3.70%	-26.54%***	-21.05%***	-13.56%***	-17.64%***	-21.13%	-9.88%***
P-VALUE	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.212)	(0.006)	(0.000)	(0.000)	(0.000)	(0.101)	(0.001)
N	1838	668	69	1118	2276	876	64	1365				
PANEL C: FAILED												
MEAN DA	-18.42%**	-4.04%	-3.78%	-24.66%***	-7.53%	-20.37%	2.40%	-4.91%	-10.89%	16.33%	-6.18%	-19.75%
P-VALUE	(0.015)	(0.805)	(0.930)	(0.001)	(0.383)	(0.106)	(0.897)	(0.672)	(0.338)	(0.423)	(0.894)	(0.152)
MEAN DW	-19.44%***	-2.54%	-38.43%	-21.16%***	-12.59%	-35.01%***	-4.09%	-6.88%	-6.85%	32.46%	-34.33%	-14.28%
P-VALUE	(0.006)	(0.888)	(0.193)	(0.007)	(0.158)	(0.004)	(0.792)	(0.570)	(0.543)	(0.131)	(0.289)	(0.318)
N	83	16	9	58	99	21	9	69				
PANEL D: FAILED EXOGENOUS												
MEAN DA	-8.74%	-4.16%	-13.98%	4.03%	7.45%	-14.58%	11.23%	14.89%	-16.19%	10.42%	-25.21%	-10.86%
P-VALUE	(0.442)	(0.839)	(0.797)	(0.723)	(0.531)	(0.424)	(0.661)	(0.522)	(0.324)	(0.698)	(0.669)	(0.673)
MEAN DW	-12.50%	-2.47%	-58.74%*	3.28%	-3.74%	-47.95%*	-1.61%	14.00%	-8.76%	45.48%*	-57.13%*	-10.72%
P-VALUE	(0.217)	(0.911)	(0.075)	(0.801)	(0.766)	(0.007)	(0.910)	(0.568)	(0.585)	(0.098)	(0.095)	(0.698)
N	44	9	7	24	46	11	4	20				
PANEL E: SUCCESSFUL – FAILED												
DIFF DA	-9.98%	-17.35%	-43.05%	-6.37%	-5.58%	18.08%	-28.47%	-14.24%				
P-VALUE	(0.189)	(0.303)	(0.341)	(0.404)	(0.526)	(0.160)	(0.184)	(0.230)				
DIFF DO	-8.92%	-18.79%	-9.24%	-9.78%	-2.21%	31.31%***	-22.44%	-14.18%				
P-VALUE	(0.212)	(0.312)	(0.753)	(0.216)	(0.807)	(0.010)	(0.223)	(0.251)				
PANEL F: SUCCESSFUL – FAILED EXOGENOUS												
DIFF DA	-19.66%*	-17.52%	-32.84%	-41.37%***	-20.55%*	12.25%	-38.58%	-36.64%				
P-VALUE	(0.090)	(0.405)	(0.554)	(0.001)	(0.092)	(0.505)	(0.197)	(0.127)				
DIFF DO	-15.86%	-19.15%	11.07%	-41.17%***	-11.06%	44.20%**	-26.23%	-37.98%				
P-VALUE	(0.123)	(0.398)	(0.711)	(0.004)	(0.386)	(0.012)	(0.152)	(0.134)				

The following table presents the long-run 24 month BHAR's for the samples from the announcement date of the deal (DA) and the subsequent date of outcome (DO), which is either the date of effective completion (DE) or effective withdrawal (DW) for the overvalued and undervalued successful and failed samples respectively. We measure the buy-and-hold abnormal return using the formula $BHAR_{it} = \prod_{t=0}^{T}[1 + R_{it}] - \prod_{t=0}^{T}[1 + R_{mt}]$

$$BHAR_{it} = \prod_{t=0}^{T}[1 + R_{it}] \, | \, \prod_{t=0}^{T}[1 + R_{mt}]$$

. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The Failed Exogenous sample contains all deals which failed for reasons exogenous to bidder, i.e. for reasons outside the control of the bidder. For all samples, we examine those deals for which the acquirer was either over or undervalued during the acquisition process. The included deals in the overvalued (undervalued) sample are those in which the acquirer is deemed to be overvalued (undervalued). The acquirer's PE on the month of announcement is compared with a historical firm PE average of 24 months (-12,+12) around the deal announcement. If the announcement month PE is higher (lower) than the historical average, the firm is classified as highly-valued (valued-low). We then take the top (bottom) 30% of these firms as Overvalued (Undervalued). Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes in Panel's E and F. The P-value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted ***, ** and * respectively.

	OVERVALUED (OVER)				UNDERVALUED (UNDER)				DIFFERENTIAL: OVER - UNDER			
	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED
PANEL A: FULL												
MEAN DA	-21.49%***	-15.88%***	-29.25%***	-23.93%***	-3.61%***	2.08%	-15.95%**	-6.46%***	-17.89%***	-17.96%***	-13.30%	-17.47%***
P-VALUE	(0.000)	(0.000)	(0.000)	(0.000)	(0.009)	(0.331)	(0.018)	(0.000)	(0.000)	(0.000)	(0.172)	(0.000)
MEAN DE	-21.45%***	-16.10%***	-31.79%***	-23.58%***	-5.39%***	0.67%	-20.53%***	-8.31%***	-16.06%***	-16.77%***	-11.27%	-15.27%***
P-VALUE	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.750)	(0.002)	(0.000)	(0.000)	(0.000)	(0.216)	(0.000)
N	1921	684	78	1176	2375	897	73	1434				
PANEL B: SUCCESSFUL												
MEAN DA	-21.81%***	-16.18%***	-31.76%***	-24.23%***	-3.57%**	2.28%	-17.64%**	-6.60%***	-18.23%***	-18.47%***	-14.11%	-17.63%***
P-VALUE	(0.000)	(0.000)	(0.000)	(0.000)	(0.012)	(0.294)	(0.018)	(0.000)	(0.000)	(0.000)	(0.149)	(0.000)
MEAN DE	-21.88%***	-16.52%***	-33.54%***	-24.03%***	-5.40%***	0.91%	-21.97%***	-8.56%***	-16.48%***	-17.42%***	-11.57%	-15.47%***
P-VALUE	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.671)	(0.003)	(0.000)	(0.000)	(0.000)	(0.225)	(0.000)
N	1838	668	69	1118	2276	876	64	1365				
PANEL C: FAILED												
MEAN DA	-14.48%**	-3.48%	-10.05%	-18.20%***	-4.31%	-6.41%	-3.92%	-3.72%	-10.17%	2.94%	-6.13%	-14.48%
P-VALUE	(0.023)	(0.806)	(0.797)	(0.003)	(0.513)	(0.560)	(0.783)	(0.670)	(0.264)	(0.869)	(0.882)	(0.171)
MEAN DW	-12.12%**	1.48%	-18.40%	-14.90%***	-5.24%	-9.14%	-10.24%	-3.40%	-6.88%	10.62%	-8.16%	-11.50%
P-VALUE	(0.048)	(0.923)	(0.540)	(0.022)	(0.452)	(0.524)	(0.431)	(0.703)	(0.456)	(0.610)	(0.799)	(0.294)
N	83	16	9	58	99	21	9	69				
PANEL D: FAILED EXOGENOUS												
MEAN DA	-10.11%	-3.72%	-17.33%	-3.12%	11.67%	-0.26%	3.97%	13.57%	-21.78%*	-3.46%	-21.30%	-16.69%
P-VALUE	(0.279)	(0.796)	(0.727)	(0.724)	(0.206)	(0.985)	(0.887)	(0.450)	(0.096)	(0.860)	(0.702)	(0.403)
MEAN DW	-9.48%	-1.84%	-30.14%	-3.14%	11.52%	-1.42%	-3.45%	18.50%	-21.00%	-0.42%	-26.69%	-21.64%
P-VALUE	(0.230)	(0.904)	(0.412)	(0.710)	(0.276)	(0.954)	(0.813)	(0.354)	(0.111)	(0.988)	(0.489)	(0.316)
N	44	9	7	24	46	11	4	20				
PANEL E: SUCCESSFUL – FAILED												
DIFF DA	-7.33%	-12.71%	-21.70%	-6.02%	0.74%	8.70%	-13.72%	-2.88%				
P-VALUE	(0.254)	(0.380)	(0.588)	(0.326)	(0.913)	(0.440)	(0.397)	(0.747)				
DIFF DO	-9.75%	-17.99%	-15.15%	-9.13%	-0.16%	10.05%	-11.73%	-5.15%				
P-VALUE	(0.117)	(0.255)	(0.620)	(0.165)	(0.982)	(0.489)	(0.425)	(0.572)				
PANEL F: SUCCESSFUL – FAILED EXOGENOUS												
DIFF DA	-11.70%	-12.68%	-14.43%	-24.20%**	-15.24%	2.58%	-22.48%	-19.55%				
P-VALUE	(0.216)	(0.392)	(0.772)	(0.012)	(0.105)	(0.853)	(0.453)	(0.285)				
DIFF DO	-12.40%	-14.90%	-3.40%	-24.47%	-16.92%	2.34%	-19.60%	-26.72%				
P-VALUE	(0.123)	(0.345)	(0.925)	(0.009)	(0.115)	(0.924)	(0.255)	(0.188)				

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The following table presents the long-run 24 month BHAR's for the samples from the announcement date of the deal (DA) and the subsequent date of outcome (DO), which is either the date of effective completion (DE) or effective withdrawal (DW) for the successful and failed samples respectively. We measure the buy-and-hold abnormal return using the formula $BHAR_{it} = \prod_{t=0}^{T}[1 + R_{it}] - \prod_{t=0}^{T}[1 + R_{mt}]$

$$BHAR_{it} = \prod_{t=0}^{T}[1 + R_{it}] \cdot \prod_{t=0}^{T}[1 + R_{mt}]$$

. The Successful sample contains all deals which were subsequently completed so that the acquirer gained control of the target with a holding of +51%. The Failed sample contains all deals which were subsequently withdrawn so that the acquirer did not gain control of the target. The Failed Exogenous sample contains all deals which failed for reasons exogenous to bidder, i.e. for reasons outside the control of the bidder. For all samples, we examine those deals undertaken in months when the market was highly-valued or valued low, as per the methodology of Bouwman, Fuller and Nain (2009). Please see the Data and Methodology section for more information. Cash deals refer to those which were financed 100% using cash. Stock deals refer to those which were financed 100% using equity. Mixed deals refer to those deals with known information confirming that the deal was financed using equity and cash. We control for the different sample sizes in Panel's E and F. The P-value is shown in parentheses. Significance at the 1% level, 5% level and 10% level are denoted ***, ** and * respectively.

	HIGH-VALUATION (HV)				LOW-VALUATION (LV)				DIFFERENTIAL: HV - LV			
	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED	ALL	CASH	STOCK	MIXED
PANEL A: FULL												
MEAN DA	-14.15%****	-7.95%***	-35.44%***	-15.38%****	-6.73%***	3.61%	-15.61%	-11.81%***	-7.42%***	-11.56%***	-19.84%	-3.57%
P-VALUE	(0.000)	(0.004)	(0.000)	(0.000)	(0.001)	(0.262)	(0.116)	(0.000)	(0.004)	(0.007)	(0.104)	(0.277)
MEAN DE	-14.76%***	-8.06%***	-37.17%***	-16.15%***	-7.94%***	2.58%	-22.05%***	-12.77%***	-6.81%***	-10.63%***	-15.12%	-3.38%
P-VALUE	(0.000)	(0.003)	(0.000)	(0.000)	(0.000)	(0.395)	(0.013)	(0.000)	(0.007)	(0.009)	(0.168)	(0.297)
N	1783	583	81	1152	1056	360	45	652				
PANEL B: SUCCESSFUL												
MEAN DA	-14.22%***	-8.08%***	-34.30%***	-15.71%***	-7.47%***	3.58%***	-28.06%***	-12.35%***	-6.75%**	-11.66%***	-6.24%	-3.36%
P-VALUE	(0.000)	(0.004)	(0.000)	(0.000)	(0.000)	(0.270)	(0.001)	(0.000)	(0.010)	(0.007)	(0.576)	(0.313)
MEAN DE	-15.05%***	-8.60%***	-36.32%***	-16.58%***	-8.43%***	2.80%***	-30.80%***	-13.30%***	-6.61%***	-11.40%***	-5.52%	-3.28%
P-VALUE	(0.000)	(0.002)	(0.000)	(0.000)	(0.000)	(0.360)	(0.001)	(0.000)	(0.009)	(0.005)	(0.618)	(0.318)
N	1695	570	72	1087	1024	354	40	631				
PANEL C: FAILED												
MEAN DA	-12.38%*	-2.19%	-44.60%**	-9.96%	17.05%	5.66%	84.01%	4.36%	-29.43%	-7.85%	-128.61%**	-14.32%
P-VALUE	(0.063)	(0.896)	(0.021)	(0.206)	(0.315)	(0.858)	(0.115)	(0.839)	(0.108)	(0.824)	(0.034)	(0.531)
MEAN DW	-8.82%	15.74%	-43.91%**	-8.87%	7.72%	-10.65%	48.02%	3.38%	-16.54%	26.40%	-91.94%**	-12.25%
P-VALUE	(0.226)	(0.486)	(0.021)	(0.284)	(0.613)	(0.686)	(0.110)	(0.874)	(0.329)	(0.440)	(0.012)	(0.593)
N	87	13	9	65	32	6	5	21				
PANEL D: FAILED EXOGENOUS												
MEAN DA	-9.09%	25.77%	-46.21%**	-6.14%	53.20%*	19.36%	154.68%	40.91%	-62.29%*	6.41%	-200.89%	-47.05%
P-VALUE	(0.259)	(0.135)	(0.049)	(0.511)	(0.094)	(0.824)	(0.301)	(0.276)	(0.059)	(0.941)	(0.224)	(0.225)
MEAN DW	-6.22%	56.19%	-42.37%**	-8.26%	46.55%*	2.19%	77.36%	49.01%	-52.77%*	54.00%	-119.73%	-57.27%
P-VALUE	(0.515)	(0.244)	(0.048)	(0.388)	(0.093)	(0.969)	(0.328)	(0.178)	(0.071)	(0.441)	(0.186)	(0.130)
N	41	5	7	29	15	2	2	11				
PANEL E: SUCCESSFUL – FAILED												
DIFF DA	-1.84%	-5.89%	10.31%	-5.75%	-24.52%	-2.08%	-112.07%*	-16.72%				
P-VALUE	(0.787)	(0.728)	(0.564)	(0.480)	(0.154)	(0.948)	(0.054)	(0.441)				
DIFF DO	-6.23%	-24.34%	7.59%	-7.72%	-16.16%	13.46%	-78.83%***	-16.68%				
P-VALUE	(0.404)	(0.291)	(0.663)	(0.367)	(0.297)	(0.613)	(0.024)	(0.441)				
PANEL F: SUCCESSFUL – FAILED EXOGENOUS												
DIFF DA	-5.15%	-34.04%*	11.91%	-9.86%	-60.67%*	-15.78%	-182.74%	-53.28%				
P-VALUE	(0.530)	(0.068)	(0.574)	(0.307)	(0.060)	(0.856)	(0.257)	(0.165)				
DIFF DO	-8.84%	-64.99%	6.05%	-8.63%	-54.98%*	0.61%	-108.16%	-62.34%*				
P-VALUE	(0.363)	(0.190)	(0.754)	(0.379)	(0.052)	(0.991)	(0.235)	(0.096)				