Can Stock Markets Predict M&A Failure?

A Study of European Transactions in the Fifth Takeover Wave

by

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Abstract

In this paper we study M&A failure in Europe during the fifth takeover wave. Various measures of M&A failure are introduced: inferior long-term stock performance of the combined firm, inferior operating performance of the combined firm, as well as a major divestment of target assets. We first document the extent of M&A failure in the European market and test thereafter the relation between short-term M&A value effects, and ultimate M&A failure. Our sample consists of 401 M&As between listed acquirers and listed targets. In addition, we also look into a random sample of 372 M&As between listed acquirers and privately held target firms. Our results indicate M&A failure rates up to about 50%. Furthermore, when acquirers and targets are listed, the combined and acquirer M&A value effect upon deal announcement is consistently lower if the M&A subsequently fails. We even find larger M&A failures to be associated with worse announcement effects. However, in the sample of private takeovers we cannot find empirical evidence of such a robust association between acquirer abnormal returns upon M&A announcement and subsequent M&A failure.

Keywords: Merger, Acquisition, Europe, Failure, Event Study

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I. Introduction

Recent literature indicates that mergers and acquisitions (M&As) have become a popular business development strategy since the 1990s, both in the USA and in Europe (Gugler *et al.,* 2003; Conn *et al.,* 2005; Moeller *et al.,* 2005). Yet, as of the fifth M&A wave, the role of Europe in the worldwide takeover market has increased considerably (*e.g.,* Campa and Hernando, 2004; Weston *et al.*, 2004; Gaughan, 2007). The average positive combined shareholder value effect upon deal announcement shows that investors generally respond favorably to these transactions, at least initially (see e.g., Andrade *et al.,* 2001; Martynova and Renneboog, 2006). A number of articles have also pointed out that a lot of M&As do not create shareholder value in the long run. Aw and Chatterjee (2004) report an average acquiring shareholder loss of about 12% up to two years following deal announcement for a sample of 79 large UK acquirers during 1991–1996. For a sample of 143 acquisitions initiated by Belgian private firms between 1992 and 1994, Ooghe *et al*. (2006) reveal that about 45% - 60% of these acquisitions resulted in a profitability decrease of the combined firm up to five years following deal closure. Pautler (2003) summarizes results from business consulting studies on US M&As between 1990 and 2000. Overall, these studies report failure rates within the range from 11% up to 65%. For example, the A.T Kearney study (1999) documents that 58% of the deals in 1993–1996 reduces shareholder wealth up to two years following deal completion. Finally, the US study by Moeller *et al.* (2005) emphasizes that from 1998 through 2001 especially the large acquisitions of listed firms destroyed substantial amounts of shareholder value in the short and in the long run.

Hence, this paper wishes to address the perceived discrepancy between the high levels of M&A activity in recent years and the associated positive short-term wealth effects on the one hand and the disappointing long-term results of these transactions on the other hand. We develop three observable proxies that can capture the notion of M&A failure. In particular, we claim an M&A has failed if (1) the combined firm realizes a negative two-year BHAR following deal completion (see also Barber and Lyon, 1997; Lyon *et al.*, 1999), (2) the realized operating performance of the

combined firm at the end of the second year following deal completion does not exceed its estimated level (Gugler *et al.*, 2003) or (3) a majority stake in the target is divested. In addition, we assess the *magnitude* of M&A failure on the basis of the size of long-term abnormal stock performance and long-term operating performance deviations. The reason is that the amount of value creation/destruction subsequent to M&A completion could provide more accurate information on the ultimate success of the investment decision than an indicator reflecting whether the relevant benchmark was reached or not. We examine the extent of M&A failure in the European market from 1997 through 2006 using these different failure definitions. Next, we estimate the relation between short-term combined announcement returns and M&A failure in a multivariate OLS regression model, controlling for relative target size, industry relatedness of acquirer and target, the cross-border nature of the deal, method of payment, and acquirer location. This research set-up should allow us to determine whether the average investor can accurately assess the likelihood that an M&A will ultimately fail already at the M&A announcement date, controlling for the forces that previous literature has shown to influence the short-run as well as long-run value effects.

So far, the finance literature on M&A failures is limited to the fourth wave in the US market. Kaplan and Weisbach (1992) analyze this topic using a sample of 271 US deals between 1971 and 1982. Their study indicates that about 44% of the targets were entirely divested by the end of 1989, where the median time period from acquisition to divestment equaled seven years. Furthermore, their results point at a significant negative relation between the ten-day combined and acquirer value creation and the likelihood of selling the target at an accounting loss, after controlling for the method of payment and the number of bidders in the deal. These findings support the notion that divestments were resulting from the numerous value-destroying conglomerate deals pursued in the 1970s, which were subsequently sold off in the so-called 'bust-up' takeover wave of the 1980s. Some additional support as to an inverse relation between announcement returns and target divestment in the 1980s is provided by Mitchell and Lehn (1990). The latter authors explore whether targeted firms divest earlier-made acquisitions in response to a takeover threat and whether

these earlier-made acquisitions were value-destroying. For this purpose, Mitchell and Lehn (1990) analyze the divestiture activity of targeted firms between 3 months prior to the reception of their takeover bids and the end of the entire sample period (1980 – 1988). Divestitures by targeted firms to defend against takeovers, divestitures as part of restructuring programs after defeating takeover attempts and divestitures by acquiring firms following successful takeovers of the targets are considered. Mitchell and Lehn (1990) find that acquirer announcement returns are significantly negative if this acquirer divested the target afterwards when being targeted itself in a new takeover. Again, this finding is supportive of the hypothesis that target divestment signals a value-destroying M&A. In addition, the strategy literature also reports high divestment rates during the fourth M&A wave, and interprets these divestments as M&A failures. For example, Porter (1987) claims failure rates of about 50% in his sample of 33 large US acquisitions, while this number even increases to a dramatic 74% when the acquirer and target are from a different industry.

The main contributions of this paper to the literature are as follows. First, we examine the extent of M&A failure in Europe from 1997 through 2006. This is interesting since finance research on M&A failure to date has focused mainly on the US market during the fourth wave (*e.g.,* Kaplan and Weisbach, 1992; Loughran and Vijh, 1997; Linn and Switzer, 2001). A number of authors, including Goergen and Renneboog (2002), Martynova and Renneboog (2006), and Gaughan (2007), have emphasized the increased role of Europe in the worldwide M&A market in the fifth takeover wave. Second, we study M&A failure in a sample of publicly quoted and private targets, respectively. This is interesting for the following two reasons. On the one hand, a vast majority of European M&A transactions involves private targets. These firms typically are surrounded by more asymmetric information. Since a priori market participants have better access to information on publicly quoted firms, they should be better able to correctly assess the M&A failure probability for these public deals than for the acquisitions of private targets. On the other hand, this set-up allows us to test whether the higher abnormal acquirer returns when a private firm is targeted, as shown by Ang and Kohers (2001), among others, reflect a lower likelihood of failure

for these deals. Third, we introduce three observable proxies that can capture different aspects of M&A failure, whereas finance studies have so far primarily focused on the average abnormal long-term stock or operating performance of M&As. We thus integrate the methodologies and insights from prior empirical research into a more complete understanding of M&A failure. Finally, we provide empirical evidence as to a relation between combined short-term announcement returns and M&A failure in a European setting. To our knowledge, existing research on this topic has only examined M&As in the US and the UK market during the fourth wave (see e.g., Mitchell and Lehn, 1990; Healy *et al.,* 1992; Powell and Stark, 2005).

The results of this study reveal that 30% to 50% of the M&As in our sample have destroyed shareholder value when looking at a two-year critical window following deal completion. Yet, only about 7% of the acquirers have sold a majority stake in the target by mid-2008. On average, these targets are divested 3.14 years after the deal announcement date (median of three years). Moreover, when the target is a private firm, the divestment rate drops even further to approximately 3%. In addition, the average size of shareholder losses up to two years following deal completion is about 8% (median of 5%) for listed targets. Private acquisitions on average generate an insignificant increase in shareholder value of about 2% after a two-year post-completion window (median loss of 0.36%). These findings are consistent with earlier studies such as Ang and Kohers (2001) that document more shareholder value creation through the acquisition of private targets. When target firms are listed, we demonstrate a consistent significant negative relation between the short-term announcement effect and M&A failure. Furthermore, we report that larger M&A failures are associated with worse short-term shareholder value effects. On the other hand, when targets are privately held, the evidence as to an association between the short-term announcement effect and our M&A failure proxies is much weaker. In fact, we can only detect a significant negative relation between the short-term acquirer value effect and two-year post-M&A abnormal stock performance, while we cannot find any evidence of such a relation when examining the two alternative M&A failure proxies. Robustness checks, using a three-year post-M&A period to reflect a potentially

longer integration period, confirm these findings and thus suggests that considering longer windows does not fundamentally alter the above conclusions.

The remainder of this paper is organized as follows. Section II offers a brief review of the relevant literature. In Section III, we present our sample and methodology, while the results are described in Section IV. Section V offers our conclusions.

II. Literature Review

The large finance literature on short-term and long-run M&A wealth effects offers an ideal framework for an M&A failure study like ours (for an overview, see Jensen and Ruback, 1983; Andrade *et al*., 2001; Bruner, 2002; Martynova and Renneboog, 2006). This literature is highly influenced by the semi-strong market efficiency hypothesis, which claims that share prices reflect all publicly available and relevant information at all times. In particular, this hypothesis provides a theoretical argument in favor of the event study methodology, widely used to assess M&A value creation to acquirers and targets since the 1960s (e.g., Campbell *et al*., 1996; Jensen and Ruback, 1983). The empirical results following from this methodology are very robust across studies: on average targets realize large positive and highly significant abnormal returns upon the announcement of an M&A, while bidders lose insignificantly or have zero returns at best. The average combined value creation to bidder and target firms is further found to be significantly positive since the 1980s. For example, during the period 1990–1998, Andrade *et al.* (2001) report an average return to target shareholders of about 16% in the event window (-1,+1), significant at the 5% level, whereas bidders lose an insignificant 1.0%. Yet, the combined M&A value creation in this period is estimated at 1.4%, significant at the 5% level. Martynova and Renneboog (2006) explore bidder and target announcement returns for a Continental European and UK sample during the fifth merger wave (1993 – 2001) and document empirical evidence similar to these US findings. Besides, they document a target stock price run-up of 21%, starting at about 35 days prior to the public announcement date of the M&A, while they also find evidence of a significant 3% loss to

acquiring shareholders over a three-month period subsequent to the bid. This latter finding indicates that on average investors adjust their expectations about the announced M&A downwards, possibly due to new information released within the first few months following the first public announcement.

The long-term M&A wealth effect has received attention in the finance literature too, but the methodology as well as the empirical results have been criticized. Moreover, the findings in this literature are not robust. Long-term event studies use acquirer stock returns in windows up to five years following the effective transaction date to proxy the M&A value effect. The empirical evidence in these articles suggests an overall wealth loss to shareholders. For example, Agrawal *et al.* (1992) study cumulative abnormal returns (CAR) using monthly data on a sample of 937 mergers and 227 tender offers in the USA over the period 1955–1987. Their findings indicate that stockholders of acquiring firms lose on average 10% over five years after M&A completion. Loughran and Vijh (1997) use buy-and-hold abnormal returns (BHAR) to acquirers to assess the long-run performance of 947 US M&As in the period 1970–1989. Their results reveal that acquirers on average lose an insignificant 6.5% over five years following M&A completion. Furthermore, the authors report a five-year BHAR of -23.6% for stock-financed mergers, while acquiring shareholders gain about 30.5% in the five-year period following cash-financed tender offers. Gregory (1997) examines 452 large domestic UK transactions between 1984 and 1992 and documents average shareholder losses within the range of 10% – 18% between the month of deal announcement and two years following deal completion. Conversely, articles studying long-term post-M&A operating performance generally find a modest insignificant improvement in a three- to five-year period following deal completion. For example, Healy *et al.* (1992) study the five-year post-M&A performance of the 50 largest US mergers between 1979 and 1984, and report a significant improvement in industry-adjusted performance, measured by the ratio of pre-tax industry-adjusted cash flow to market value of the firm. Yet, using a sample of 315 US M&As completed during the period 1981 through 1995, Ghosh (2001) shows that the positive effect on

median operating performance reported in Healy *et al.* (1992) disappears when controlling for firm size and pre-M&A performance of the acquirer. In a more recent study on UK M&As between 1985 and 1993, Powell and Stark (2005) use the ratio of pre-tax operating cash flow to the book value of total assets to measure the three-year post-acquisition performance of the M&A. Their empirical results reveal a modest though significant improvement of operating performance following deal completion, after controlling for industry, firm size, and pre-M&A performance. Consistent with these results, Gugler *et al.* (2003) find that the M&As in their worldwide sample (1981 – 1998) on average improve the performance of the combined firm over a five-year period following deal closure. In this study, Gugler *et al.* (2003) first estimate the performance of the combined firm on the basis of pre-M&A performance and size of acquirer and target, corrected for median growth in the industry. Estimated performance is then compared to the actual performance of the combined firm, thereby enabling the authors to assess whether the M&A improved firm operating performance.

Finally, a number of studies have examined the relation between short-term value effects and the long-run result of M&As. For example, Kaplan and Weisbach (1992) assess the relation between acquirer and combined short-term announcement returns and subsequent target divestitures. The authors use a sample of 271 large US M&As completed between listed firms in 1971 – 1982 and trace targets that are divested subsequently to the deal until the end of 1989. If the entire target was sold at an accounting loss or the business press related the divestment to bad M&A performance, the divestment was classified as an unsuccessful divestiture (13%); otherwise the target is either successfully divested (26%) or non-divested (56%). Kaplan and Weisbach (1992) hypothesize that unsuccessful divestitures reveal that the acquisition was value-destroying, whereas successful divestitures and non-divested targets imply value-increasing transactions. The empirical results of their analyses confirm this hypothesis, as the acquirer and combined ten-day announcement returns are significantly lower for unsuccessfully divested M&As. Furthermore, these results hold after controlling for the method of payment and the number of bidders involved in

the deal. Mitchell and Lehn (1990) also provide empirical support as to the semi-strong informational efficiency of stock markets using a sample of 401 US M&As between 1982–1986. In particular, these authors test the hypothesis that takeover targets are firms that made unsuccessful acquisitions themselves in prior years. By exploring the prior acquisition strategy of these targeted firms in more detail, Mitchell and Lehn (1990) show that targeted firms initiated more divestments of previously purchased business units than firms not targeted in a takeover. More specifically, about 9% and 40% of acquisitions were entirely divested by non-targeted and targeted firms, respectively. Furthermore, the authors report that the cumulative abnormal returns to acquirers within the (-20,40) event window are significantly negative at the 1% level for acquisitions that are subsequently divested. In their analysis, the authors do not control for any deal- and firm-specific characteristics. Furthermore, Healy *et al.* (1992) report a significant positive association between the short-term M&A value effects[1] and five-year post-M&A abnormal operating performance. More recently, however, Powell and Stark (2005) fail to find strong support as to a significant association between the three-year post-takeover operating performance and the ten- and 15-day combined announcement returns to target and acquirer.

III. Sample Selection and Methodology

III.1. Sample selection

We retrieved European M&As during the fifth takeover wave from the Zephyr database of Bureau van Dijk.[2] In particular, either the target firm or the acquiring firm had to be registered in the enlarged European Union (EU27) in order for a deal to be retained in our sample. Besides, we only include mergers and acquisitions for which the deal was closed between 01/01/1997 and 31/12/2006. The reason is that we define M&A failure on the basis of either lack of long-term

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[1] The abnormal short-term returns are measured from five days before the announcement until the target delisting date.
[2] We chose to work with Zephyr since this database has a large coverage on European deals and private-target deals. More in particular, this database contains about 500,000 transactions worldwide during the 1997– 2007 period, of which 219,487 involved a European target. In addition, Zephyr includes all deals without any minimum limit on deal value, which considerably enhances its coverage of deals including private targets. Finally, Zephyr can easily be combined with Amadeus, a European-wide database of annual accounts on both public and private firms.

value creation of the combined firm after deal closure or target divestment subsequent to the deal. Thus, we can only assess M&A failure if the deal was in fact completed. M&As including financial firms, i.e. firms that report a primary SIC-code beginning with 6, are removed from the sample, as these firms typically file their annual accounts under different accounting standards. As a result, private equity deals, which became popular as of the end of the 1990s, are not included in our sample. The acquired stake has to be larger than 50% and the initial stake of the acquirer should be smaller than 50%. We initially do not exclude transactions for which this latter information is not available, as these likely are the smaller deals in the sample involving non-listed firms for which the acquired stake typically is 100%.[3] Based on these criteria 58,374 M&As were selected.

We subsequently retain *all* deals (460 M&As) in which both the acquirer and the target are listed firms (Sample A). The reason for this selection is that we expect the stock market to be able to anticipate the ultimate outcome of an M&A at best if the acquirer and the target are publicly quoted, as a priori more firm-specific information is available to investors. An association between the short-term value effect and M&A failure is thus most likely to arise in this sample. Besides, Moeller *et al*. (2005) show that particularly large acquisitions of listed targets destroy shareholder value, which makes these deals also of special interest when examining M&A failure. Looking at deals with public targets further allows us to calculate the combined value creation to acquirer and target shareholders at the M&A announcement date to proxy for the market's perception of a transaction. This is not unimportant, given that the literature review has already revealed that most deals create value at their announcement date, but this value creation is not split equally among bidder and target shareholders. Under the assumption of semi-strong stock market efficiency, we thus hypothesize that the combined short-term value in M&As is significantly related to subsequent M&A failure. We additionally test the hypothesis of semi-strong stock market efficiency on

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[3] As a final remark to this selection of M&As, we note that for the sample including quoted acquirers and targets, the acquired stake of all transactions is known and exceeds 50%. For the private sample, however, we have no direct information on the acquired stake for 13 transactions. The average relative target size, measured by target total assets to acquirer total assets at the end of the fiscal year prior to deal completion, equals 0.15% (median = 0.11%) in this 'unknown' subsample, while it is equal to 6.9% (median = 1.7%) for the entire Sample B. This finding suggests these are indeed the very small deals. Excluding these deals from the regression analysis did not change the empirical results.

acquirer abnormal returns upon deal announcement, since the correlation of about 0.80 between combined and acquirer abnormal returns is statistically and economically significant.

In addition, we construct a second sample of 451 M&As including private targets only (Sample B).[4] Looking at this sample allows us to examine the level of M&A failure when targets are not listed and thus can indicate whether the higher acquirer abnormal returns for these deals correspond to lower M&A failure probabilities on average (see e.g., Ang and Kohers, 2001). Additionally, this sample enables us to test stock market efficiency when market participants may have considerably less information about the target firms (see e.g., Faccio *et al*., 2006; Capron and Shen, 2007). We use short-term abnormal returns to acquirers to proxy for the stock market's assessment of the M&A. We are aware that this measure foregoes the wealth effects to target investors, but the high correlation between combined and acquirer value created on upon deal announcement in Sample A could indicate that acquirer abnormal returns can be used as a second-best indicator of the stock market's evaluation of the deal upon its announcement in Sample B.

Finally, we require that the acquirer did not make another M&A announcement within the 35-day window prior to the announcement of the studied transaction.[5] The reason is that M&A literature documents changes in the acquirer and target stock prices already prior to the public announcement date, due to rumours and information leakages. However, only the target stock price run-up is found to be significant (see e.g., Bruner, 2002; Martynova and Renneboog, 2006). A second deal announcement by the same acquirer within this period could thus contaminate the acquirer abnormal returns estimated during the event window of a later announcement (see also Duso *et al*., 2006; Martynova and Renneboog, 2006; Moeller *et al.,* 2007).[6] The length of this

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[4] In fact, we first select a random sample of 508 M&As from Zephyr and then delete the 10% deals in which a public target was acquired. This approach enables us to work with samples of similar size.
[5] In this paper, trading days rather than calendar days are referred to.
[6] More specifically, as our event windows can start before the public announcement date, the estimated abnormal returns to the acquiring shareholders from the latest transaction would equal the sum of the abnormal value effects of both the earlier and the later M&A announcement. To further assure that the abnormal returns are not influenced by other major firm-specific events in the market model estimation window of (-250,-51) relative to the M&A announcement, we exclude transactions for which either target returns or acquirer returns are extreme in this estimation window. According to this latter criterion, one target in Sample A, for which the returns in the (-250,-51) window showed a skewness of 15 and a minimum and maximum value of -0.94 and 18.75, respectively, had to be removed;

window differs across studies. Yet, as we report an economically and statistically significant change in the target stock price only from about 35 days prior to deal announcement (see Table 3 and Figure 1), we argue that for our study, this 35-day window suffices to correct for a potential contamination by another deal announcement. We further require that the estimation period of the market model, i.e., the period (-250,-51) relative to the M&A announcement made at day 0, contains at least 30 non-missing or non-zero returns.[7] Following these requirements, we conduct an event study on 401 (372) listed acquirers and 325 publicly quoted targets in Sample A (B). In the regression models, the reported number of observations is somewhat lower, due to missing information on either the M&A failure proxies or the control variables.

III.2.   Sample composition

The time, industry and geographic composition for Sample A and Sample B is presented in Table 1, while Table 2 provides additional information on deal-specific characteristics. Panel A and Panel B present the statistics for Sample A and Sample B, respectively. Overall, we do not find much difference in the time and industry distribution of both samples. A large fraction of the deals are announced during the later years of our sampling period, while especially firms in the food, manufacturing, transportation and business service industry participated in the fifth M&A wave. Even though we may not yet be able to assess the long-term operating performance of all deals in the sample, we opted for working with this period since it captures the end of the fifth merger wave, including both the period of booming and declining stock markets. Table 2 further shows that mergers only represent a marginal fraction of the fifth M&A wave in Europe, while also the fraction of hostile and competed deals is small. Interestingly, in about 60% of the transactions, the acquirer and target are not active in the same four-digit industry, i.e., unrelated transactions. The summary statistics on relative target size, i.e., the ratio of the target size to acquirer size, indicate that targets

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these minimum and maximum returns were furthermore reached on consecutive trading days during the estimation period.
[7] This restriction allows for a useful estimation of the market model parameters and was not binding for approximately 90% of firms in both samples.

are considerably smaller than their acquirers, particularly in Sample B.[8] For example, while a typical target in Sample A is about 15% of the size of the acquirer (median value), Table 2 (Panel B) shows that the median relative size of the privately held targets in Sample B is only approximately 2%. The average acquired stake of about 80% and 93% in Sample A and Sample B (median acquired stake = 100%), respectively, further points out that these transactions are in fact deals for control. Finally, we report that about half of the deals for which we have information on the method of payment are fully paid in cash, even when targets are listed firms.[9]

<Insert Tables 1–2 >

III.3.   Event Study Methodology

The event study methodology is applied to the M&A announcements following Brown and Warner (1985), Dodd and Warner (1983) and Scholes and Williams (1977). The market return is proxied by the S&P Europe 350 index. We retrieve the daily total return index on the market and the firms from Datastream (Thomson Financial) and estimate a market model for each security using OLS during the (-250,-51) estimation period. Brown and Warner (1985) emphasize that the market model provides well-specified test statistics for the abnormal returns, even when a clustering of M&A deals occurs. We correct for thin trading using the Scholes-Williams (1977) methodology with one lead and one lag.

The daily abnormal returns (AR) are computed as the difference between the actual returns and the expected returns during the event window. When no trade occurred on the announcement date, day 0 is the first trading day following the announcement date (see also Martynova and Renneboog, 2006). Cumulative abnormal returns (CAR) are computed as the sum of the daily abnormal stock returns around the M&A announcement date. We use the CAR in the (-1,+1) event

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[8] In Sample A, firm size is captured by market value of equity, measured 51 trading days prior to the M&A announcement date. In Sample B, we use total assets as a proxy for firm size, with total assets measured at the end of the fiscal year prior to deal closure. These statistics are robust to alternative definitions of firm size such as sales and number of employees.
[9] These findings are largely in line with existing M&A studies such as Andrade *et al.* (2001), Ang and Kohers (2001), Eckbo and Thorburn (2000), and Martynova and Renneboog (2006).

window to estimate the short-term announcement effect of the M&A.[10] Extended event windows including the stock price run-up before the effective announcement date up to the (-50,+1) window are added to the event study since earlier studies have indicated that deal-specific information – potentially also M&A failure relevant information – can reach the market already before the public announcement of the transaction (see e.g., Datta and Puia, 1995; Andrade *et al.*, 2001; Bruner, 2002). As one of the aims in this study is to explore the association between the short-term and long-term M&A wealth effect, we do not extend the event window further than one day after the announcement date. Combined returns to acquirers and targets are computed using the methodology described in Houston and Ryngaert (1994). In fact, the combined returns are calculated as a weighted average of the acquirer and target abnormal returns, with the weighting factors equal to the market value of equity of acquirer and target, respectively, measured 51 trading days prior to the M&A announcement. The significance of the CARs is established using the test statistics suggested by Dodd and Warner (1983) and Houston and Ryngaert (1994). Besides, we also use a non-parametric Wilcoxon Signed-Rank Sum test to assess the significance of the abnormal M&A announcement returns. As this test makes no assumptions on the distribution of the abnormal returns, it can provide a robustness check for our results. All cumulative abnormal returns are winsorized at 5%–95%.

The main results of this event study are presented in Table 3 and are largely consistent with prior empirical work on the average short-term wealth effects of European M&As during earlier years (see Campa and Hernando, 2004; Martynova and Renneboog, 2006). Panel A shows the results for Sample A, while Panel B presents the results for Sample B. Target shareholders in Sample A gain large, positive and highly significant abnormal returns upon M&A announcement, whereas acquirers in this sample realize small and insignificant returns. As a consequence, combined abnormal returns in Panel A are found to be small, but significantly positive. These findings indicate that on average investors also considered these public M&As during 1997–2006 to

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[10] This event window includes potential leakage of information immediately prior to the public announcement. It additionally accounts for announcements made on Friday evenings for which the announcement effect shows up in the Monday returns.

be wealth-enhancing business strategies. Yet, when looking at the results for Sample B, we find that public acquirers of privately held target firms generate positive significant abnormal returns in the (-1,+1) event window.[11] This finding is consistent with the empirical results reported by Ang and Kohers (2001) and Faccio *et al.* (2006) and suggests that acquirers of private targets generate more shareholder value.

< Insert Table 3 >

The cumulative abnormal returns in the (-50, +50) window are presented in Figures1–3. These figures confirm the results from the event study presented in Table B, but Figure 2 further reveals that acquirers of listed targets on average suffer big and highly significant losses of about -2.5% in the period (+20,+50) following the deal announcement date (Sample A). Interestingly, we also report a decline in acquirer stock prices for Sample B, but this price correction is much smaller (-0.41%) and not statistically significant at conventional levels. This finding is supportive of the hypothesis that acquirers of listed targets on average create less shareholder value than acquirers of privately held targets. Additional empirical evidence supporting this conjecture is provided using the three M&A failure proxies that we develop in the next section.

<Insert Figures1 – 3>

III.4.   M&A Failure Proxies

The basic hypothesis in this paper is that an M&A has failed if it was not able to yield the synergy value expected by the acquiring management at the announcement of the deal. Yet, as we have no direct information about the kind of synergies the acquiring managements aimed for (*e.g.*, cost reduction versus revenue enhancement), we use three observable proxies for the non-realization of synergy benefits on the basis of existing M&A studies: inferior long-run stock performance, inferior operating performance, and target divestment (*e.g.*, Kaplan and Weisbach, 1992; Ghosh, 2001; Rau

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[11] The difference between the average acquirer abnormal returns in the (-1,+1) window in Sample A versus Sample B is statistically significant at the 10% level.

and Vermaelen, 1998). The definition and measurement of these M&A failure proxies are presented hereafter.

III.4.1. Buy-and-Hold Abnormal Returns

As a first proxy for M&A failure, we hypothesize that negative abnormal stock returns for the acquirer as of the second day following deal announcement up to two years following deal completion date indicate a failed M&A transaction.[12] We state that this time window is most appropriate to assess the long-term stock effect for two reasons. First, we argue that the important date to consider when assessing M&A failure using abnormal long-term stock returns is the announcement date. More in particular, since the semi-strong stock market efficiency hypothesis implies that the value effect of the actual M&A announcement should be reflected in the (-1,+1) window surrounding the announcement date (or somewhat earlier with information leakage), this hypothesis also implies that the long-term M&A value effect should be measured starting from the second trading day following deal announcement. The reason is that new deal-specific information, unknown at the announcement date, can be released to investors from that day onwards.[13] The average decrease in the acquirer stock price starting from day 20, as shown in Figure 2, also supports this idea. Hence, we do not calculate the long-term effect starting from the effective deal completion date. This is an important feature since for a considerable fraction of the deals, i.e., 66% and 31% in Sample A and Sample B, respectively, we report a substantial time lag between the deal announcement and deal completion date.[14] Because of this time lag, a large amount of failure-

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[12] We claim that acquirer abnormal long-term stock returns represent total value created for the combined firm for two reasons. First, as indicated by earlier studies such as Healy *et al.* (1992) and Loughran and Vijh (1997), a publicly quoted target is typically delisted after being acquired by another firm. Second, we report an insignificant average abnormal return for the listed targets in the (+2,+50) event window of -0.29%, while the average acquirer abnormal return equals -3.10%, significant at the highest significance level. These findings suggest that new information about the announced deal is reflected in the acquirer stock returns, rather than in the target returns. In other words, the importance of the target abnormal returns when measuring total value creation after the announcement date will be limited, relative to the impact of acquirer abnormal returns.

[13] As a robustness check, we assess the long-term stock return effect starting from day 4 following deal announcement. This alternative approach did not alter the results.

[14] The average time lag between announcement and completion in Sample A (B) equals 95 (23) days. The median number of days is 71 (0).

relevant information could already have reached market participants before the effective date of closing the deal. [15]

Second, we consider the integration of an M&A to be completed after a two-year window following deal completion. New information about the deal or its integration process could then be released up to two years following the completion date. Existing M&A studies agree that a critical period after deal completion is needed for the acquirer to implement the deal before realizing the expected synergies, yet the length of this period remains an unsettled question. Most studies use time lags of two up to five years following deal completion to assess the long-run performance of M&As (see e.g., Agrawal *et al.,* 1992; Healy *et al.*, 1992; Gregory, 1997; Hitt *et al.,* 1998; Morosini *et al.,* 1998; Bruner, 2002; Gugler *et al.*, 2003; Chakrabarti *et al.*, 2005; Slangen, 2006). In addition, a number of studies in this field, such as Jemison and Sitkin (1986) and Balloun and Gridley (1990), emphasize that the post-merger integration process will be fully completed after a two-year period. Finally, in business consulting literature it is often recommended to pursue a quick and smooth integration of the target to enhance M&A success (Pautler, 2003). In line with these studies and suggestions, we argue that ultimate value creation or destruction of an M&A is revealed after a critical period of two years following the deal completion date. However, since many studies have used time windows beyond two years, we will implement a robustness check on this period using a three-year window.

In line with the suggestions by Barber and Lyon (1997) and Lyon *et al*. (1999), we use two-year buy-and-hold abnormal returns (BHAR) in a matched control firm approach to measure the long-term stock performance of the M&A firm. More in detail, the buy-and-hold abnormal return equals the compound return on the acquirer less the compound return on a benchmark firm.[16] In a

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[15] Consider the example of the merger between Gaz de France and Suez. This merger was announced in February 2006 but completed only in July 2008. The implementation of the deal entailed some difficulties. For example, almost immediately after the announcement, Gérard Mestrallet and Jean-François Cirelli, the managing directors of Suez and Gaz de France, respectively, disagreed on whether or not to retain '*Suez Environment'* in the combined firm. By October 2006, the composition of the new executive committee and the board of directors caused additional problems. Clearly, this information was already revealed to investors before the effective completion date.

[16] This explains why buy-and-hold returns rather than cumulative returns represent an accurate measurement of the investors' experience in the long-run. The BHAR-measure is also used by e.g., Loughran and Vijh (1997), Datta *et al.* (2001), and Chakrabarti *et al.* (2005).

matched control firm approach, this benchmark is a firm that is selected on the basis of firm size, book-to-market (BTM) and one-year pre-M&A stock performance. Barber and Lyon (1997) point out that the use of matched control firms on the basis of firm size and BTM alleviates the new listing, rebalancing and skewness biases related to the use of equally-weighted reference portfolios. Lyon *et al.* (1999) further show that the test statistics in Barber and Lyon (1997) are biased for very good and very bad performers before the event. Since acquiring firms are known to be better performing companies before the M&A (see e.g., Luypaert and Huyghebaert, 2006), we add the one-year pre-M&A stock performance as an additional criterion when looking for the appropriate control firm.

The matching algorithm of Datta *et al.* (2001) is executed on the sample firms and a pool of quoted control firms in the EU27, selected from the Amadeus database.[17] This algorithm minimizes the sum of the absolute percentage differences between size, BTM and one-year pre-M&A stock returns of the sample firm and its control firm. Firm size is measured as market value of equity 51 days prior to deal announcement. BTM is the ratio of book value of equity to market value of equity, measured one month prior to the month of the M&A announcement. One-year pre-M&A stock returns are measured as the 12-month buy-and-hold returns ending one month prior to the deal announcement date.

On the basis of this methodology, we set the first M&A failure dummy (*Failure1*) equal to one if the BHAR up to two years following deal completion is negative and zero otherwise. In addition, we use the reversal of the BHAR to assess the magnitude of shareholder value destroyed by the M&A (*Failure1_size*).[18] Our hypothesis predicts a negative coefficient in the regressions, as we expect lower abnormal returns in case of M&A failure. The regression models including the *Failure1_size* variable can provide an indication of whether abnormal announcement returns are significantly lower when the value loss because of the M&A is larger. If the acquiring firm announces a second M&A within the two-year period following the initial M&A, we only take into

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[17] While we do not a priori exclude all quoted firms that pursued an M&A in the sample period, we do not select sample firms in the pool of potential matched control firms.
[18] A negative value of *Failure1_size* thus indicates that the M&A created value in the long run.

account the BHAR up to one month prior to the second M&A announcement rather than removing this transaction from the sample. We argue that this approach does not suffer from potentially confounded acquirer stock effects – abnormal announcement returns of the second M&A interfering with the long-run value effect of the first completed transaction – while enabling us to keep the sample size as large as possible.[19]

III.4.2. Operating Abnormal Performance

The second definition for M&A failure employs the abnormal operating performance of the combined firm at the end of the second fiscal year following deal completion. In particular, we claim an M&A has failed if this abnormal performance is negative. In line with the discussion on the critical period in Section III.4.1, we consider the integration process to be finished after a two-year window following deal completion. Thereafter, we implement a robustness check using a three-year window. We use the methodology introduced by Gugler *et al.* (2003) for estimating the combined firm's abnormal operating performance. This methodology constructs an industry peer group for both the acquirer and the target. To ensure comparability between the sample firms and their peer group, we construct industry peer groups by selecting the firms in the EU27 with the same four-digit US SIC code, using the Amadeus database. Furthermore, only firms that file consolidated accounts are retained in the peer groups of listed acquirers. We thus try to minimize potential size differences between the sample firms and their peer group.[20] We use the change in median operating performance (EBITDA/total assets) of the peer groups to proxy industry-wide

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[19] As a robustness check, we check whether the acquirer announced a second deal within a two-year period following the first M&A completion and we exclude each second deal from our sample (see also Loughran and Vijh, 1997, for this approach). This approach did not qualitatively alter our results.

[20] The reasons for why we use the criterion 'consolidated accounts' rather than 'public-private' in our peer group construction is that we have no a priori reason to assume that non-quoted large firms would perform better or worse than quoted firms. Hence, excluding all private firms from the peer group would eliminate a large fraction of industry-level information.

changes in operating performance ($\Delta_{Ii,s,u}$). These industry effects are used in the following equation to estimate the expected operating performance of the combined firm:[21]

$$\pi_{C,t+n} = \pi_{A,t-1} + \frac{K_{IA,t+n}}{K_{IA,t-1}} K_{A,t-1} \Delta_{IA,t-1,t+n} + \pi_{T,t-1} + \frac{K_{IT,t+n}}{K_{IT,t-1}} K_{T,t-1} \Delta_{IT,t-1,t+n}$$

$\prod_{i,s}$ = operating performance (EBITDA) of firm i at the end of year s; $K_{i,s}$ = total assets of firm i at the end of year s; $K_{Ii,s}$ = median total assets in the industry of firm i at the end of year s; $\Delta_{Ii,s,u}$ = change in median size-corrected operating performance in the industry of firm i between the end of the year s and the end of year u. Subscripts C, A and T represent combined, acquiring and target firm, respectively. Year t is the year of deal closure.

This estimation has various theoretically attractive characteristics. In particular, the methodology allows accounting for both size and industry effects of the acquirer and the target when estimating the performance of the combined firm. This is particularly interesting since acquirers in our study are considerably larger than their targets and non-related M&As represent about 60% of the studied deals (see Table 2). Furthermore, these effects are not new to our study, but have also been documented in other empirical M&A research (see *e.g.,* Eckbo and Thorburn, 2000; Ang and Kohers, 2001).

EBITDA and total assets are used to proxy for operating performance and assets of the sample firms, respectively. We choose to work with EBITDA rather than other accounting-based measures such as net income since this measure cannot be influenced by the accounting method or the financing of the studied M&A. In addition, restructuring costs related to the implementation of the deal are likely to be excluded from this measure of operating income. To correct for the capitalized acquisition premium on the acquirer balance sheet when using the purchase accounting method, we remove '*Goodwill – Net Cost in Excess of Assets Purchased*' (Datastream) from total assets to construct our estimate of the acquirer operating performance (see *e.g.,* Healy *et al*., 1992; Ghosh, 2001; Sharma and Ho, 2002; Robinson *et al*., 2003; Powell and Stark, 2005).[22]

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[21] Gugler *et al.* (2003) use the year of the M&A completion as the base year for estimating the performance of the target firm. In this study, we use the year prior to deal completion for the estimation of target performance to eliminate all potential influence of the M&A on this estimation.

[22] For the deals included in our study, the excess target price paid over the fair value of the purchased assets is capitalized as goodwill on the acquirer balance sheet, i.e., purchase accounting of M&As (Robinson *et al*., 2003). This accounting approach is standard according to IAS for Continental European acquirers, while it is used in the UK since

In the empirical analysis, we estimate the operating performance of the combined firm at the end of the second year following deal completion by means of the Gugler *et al.* (2003) equation. We thus hypothesize that synergy realization should be reflected in the recurrent performance of the combined firm at this time. On the basis of this discussion, we hypothesize that an M&A has failed if the realized EBITDA of the combined firm is lower than our estimation at the end of the critical period following deal completion. In this case, the dummy *Failure2* is set equal to one.[23] In addition, we expect that the magnitude of the value change following M&A completion to reveal relevant information about the ultimate outcome of a deal. In fact, we expect the stock market to show a more negative reaction to the announcement of deals that result in larger value decreases after a two-year period. To test this conjecture, we include the difference between the estimated EBITDA and the realized EBITDA after a two-year period following deal completion, relative to the combined firm size, in the regressions (*Failure2_size)*. According to the hypothesis, a negative coefficient on this variable should result in the multivariate regressions.

III.4.3. Target Divestment

The divestment of a target firm subsequent to its acquisition is an intuitive, yet less common proxy for M&A failure. In our study, we hypothesize that if the acquirer divests at least 50% of the target stock (majority target divestment), the M&A could not generate the expected synergies and failed. We thus argue that an acquirer will sell its controlling stake in the target if the M&A turns out to be a disappointing business strategy. Moreover, we claim that a critical period is not required here, since management can decide at all times that it does not want to spend any further resources on the implementation of the deal. Furthermore, since selling a previously purchased target indicates that

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1998 (see e.g., Weston *et al.*, 2004; Li and Meeks, 2006). US acquirers are obliged to follow this approach since 2001, but, given that these are international M&As, we assume that purchase accounting was used for all US-initiated transactions in our sample.

[23] If the target was divested within this two-year period, we exclude the deal from the sample; this was the case for one deal in Sample A. We additionally remove transactions for which the acquirer itself was purchased by another firm within the two-year period after deal completion (four deals in Sample A). In this case, we exclude both the first transaction and the later acquisition of the first acquirer. Finally, two acquirers in Sample A completed two deals within the same year. For these cases, the estimated performance of the combined firm was adjusted following the Gugler *et al.* (2003) formula, i.e., the estimated performance of the two targets are added to the acquirer estimated performance.

the acquiring management in fact reverses an earlier strategic decision, we claim that a majority divestment of the target can be seen as a strong indication of M&A failure.

Although only few studies have used this proxy, it has been documented in the finance literature that target divestments can reveal a failing M&A strategy. For example, the evidence reported in Mitchell and Lehn (1990) suggests that unsuccessful acquirers are more likely to sell off their poorly performing targets in response to a takeover threat. Kaplan and Weisbach (1992) find a significant association between short-term value creation and 'unsuccessful' target divestment.[24] In addition, this proxy for M&A failure is more generally accepted in organizational and strategic studies, such as Porter (1987) and more recently Bergh (2001). To construct this M&A failure proxy (*Failure3*), we manually check the acquirer's M&A records in Zephyr starting from the completion date of each deal in our sample. Our final check was performed on 16/05/2008. The dummy variable *Failure3* is set equal to one if we find that the acquirer sold a majority of the target stock and zero otherwise.

While theoretically a majority target divestment may accurately indicate M&A failure, the study of Gugler *et al*. (2003) shows that the worldwide fraction of majority divestments relative to merger activity has decreased considerably since the end of the 1980s (Gugler *et al.,* 2003, Fig. 1, p. 632). In addition, our recent sample selection implies that acquirers could possibly still sell their targets during the next years. This is particularly the case for the transactions in the later years of our sample. Hence, we argue that the fraction of divested targets could represent a lower bound on real M&A failure rates.

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[24] Kaplan and Weisbach (1992) do not explicitly exclude transactions initiated by financial buyers from their sample. Since these acquirers have an intention to divest their targets at a profit later on, the distinction between 'unsuccessful' and 'successful' divestments is necessary in their research. By contrast, these financial acquirers are excluded from our study. Therefore, we claim that target divestments made by the acquirers in our study signal unsuccessful M&As.

IV. Empirical Results

IV.1.   Failure Statistics

The failure statistics for Europe during 1997–2006, as presented in Table 4, indicate that a large fraction of M&As did not create any shareholder value, when considering either long-term abnormal stock returns or abnormal operating performance of the combined firm. Panel A of Table 4 presents the failure rates for Sample A and Sample B, while Panel B reports the summary statistics on the M&A failure size proxies in both samples. In particular, we find that more than half (51.7%) of the transactions in Sample A destroyed shareholder value up to two years following deal completion (*Failure1*), while approximately 38.4% of these M&As resulted in an abnormal operating performance decrease during that window (*Failure2*). Furthermore, the robustness checks on the critical period for the first and the second M&A failure definitions point out that these failure rates are not largely affected when looking at a three-year post-M&A period. This finding thus suggests that using a two-year critical period captures rather well the underlying process. Finally, we find that in only about 7.2% of the cases, the acquiring management decided to sell off a majority stake in the target after the deal was closed (*Failure3*). Given that also M&A studies from the 1980s document divestment rates up to approximately 50% (see e.g., Porter, 1987; Kaplan and Weisbach, 1992), these statistics suggest that acquirers in Europe have not been selling off their major acquisitions at a large scale. Possibly, the management teams of these acquiring firms have not yet felt the need to divest their poorly performing acquisitions since the overall economic conditions up to May 2008 were favorable to growth strategies within and outside Europe, *e.g.*, the unification of the European market and innovation in financial markets (see Campa and Hernando, 2004; Martynova and Renneboog, 2006; Gaughan, 2007). If managers are reluctant to reverse their own decisions and thus sell an earlier purchased target, these favorable conditions could have allowed acquiring managers to hold on to their investment strategies, even to the value-destroying ones. In addition, Kaplan and Weisbach (1992) report a median time lag of about seven years between acquisition and divestment, which could indicate that managers use relatively long periods

to make a final judgment on their investment projects. Since a large fraction of the deals in Sample A were completed only recently, this could imply that the divestment rate could increase in the coming years.

The M&A failure rates for Sample B are slightly lower than the ones we report for Sample A, but the differences are smaller than expected. In particular, we find that 50.5% of acquirers exhibit inferior stock performance, whereas 31.4% of firms realize inferior operating performance. Furthermore, also in this sample the divestment rate of about 3.2% is remarkably lower than the M&A failure rates reported on the basis of *Failure1* and *Failure2*.

The summary statistics on the size of M&A failure presented in Panel B of Table 4 provide some support that private-target deals perform slightly better than acquisitions of listed targets. For example, we find that the average deal in Sample A reduced shareholder value by 8.24% after a two-year period following deal completion, significant at the 5% level using an ordinary *t*-statistic, whereas the average deal in Sample B increased shareholder value with a non-significant 2.15% (*Failure1_size*). The differences in the average abnormal two-year post-M&A stock performance between Sample A and Sample B are significant at the 10% level.[25] The summary statistics on the *Failure2_size* proxy confirm these findings. In particular, we document a non-significant average decrease in operating performance of 1.22% after a two-year post-M&A critical period in Sample A, while we report a average improvement in operating performance of 8.73% in Sample B, significant at the 5% level. The difference in average abnormal operating performance between Sample A and Sample B is now significant at the 1% level. On the basis of the median values of the change in operating performance,[26] we still find that acquirers in Sample B outperform acquirers in Sample A after a two-year period following deal completion, but the difference in performance change between the two samples decreases to an insignificant 1.14%. As a final note to these

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[25] The results on the basis of median values are in line with these findings, but the differences are smaller and not significant at traditional levels.

[26] An assessment of median values is particularly important in this section because of the small number of observations on *Failure2_size* for Sample B.

statistics, we find that our proxies for M&A failure do not lead to fundamentally different results when we consider a three-year post-acquisition critical period.

< Insert Table 4 >

As a final interesting result, we present to what extent the various M&A failure definitions capture a similar notion of value destruction in Table 5. Panel A (B) shows the results for Sample A (B). *'% overlap'* presents the fraction of deals that are classified identically as either a failure or a non-failure according to the different M&A failure definitions. These statistics, highly similar for Sample A and Sample B, suggest that there is a considerable degree of congruence between the three failure definitions, as in more than half of the cases M&As are classified in the same way. For example, 57.4% of the 202 deals in Sample A for which we have information on *Failure1* and *Failure2* are classified identically. The 66.0% overlap between *Failure2* and *Failure3* is found to be the largest. The second part of Table 5 shows the Pearson correlation between *Failure1_size* and *Failure2_size* and confirms that the first and second failure definition capture a similar notion. In particular, for Sample A, the correlation of 16.5%, statistically significant at the 5% level, suggests that large shareholder losses subsequent to M&As are associated with large operating performance decreases. On the other hand, the correlation is not very high, which reflects that the failure definitions can still reveal different aspects of the M&A value creation process.[27]

< Insert Table 5 >

IV.2.   Multivariate OLS regression model

In an OLS regression model, we relate the abnormal announcement returns obtained from the event study to the M&A failure proxies discussed in the previous subsections. The focus of our analysis is on the (-1,+1) window surrounding the public announcement date, as the abnormal returns in this window reflect all public information released at the deal announcement. However, M&A value studies have consistently documented a stock price run-up before the announcement date, i.e.,

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[27] For example, the first M&A failure definition includes all kind of deal-specific information known to the investors, also before the effective deal closure date, while the second definition focuses on operating performance of the combined firm only.

abnormal stock returns from about one month prior to the announcement (see e.g., Andrade *et al.*, 2001; Bruner, 2002; Martynova and Renneboog, 2006), thus indicating that deal-specific information can reach market participants before the announcement. This information could also indicate the M&A might be value destroying. Furthermore, more than half of the entire combined stock price run-up in Sample A, i.e., approximately 1.7%, is realized in the (-5,+1) event window, while it takes another 30 days prior to this event window to generate the additional 0.4% combined abnormal return (see Table 3 and Figure 3). Therefore, we additionally test the association between M&A failure and abnormal returns in the (-5,+1) event window. As a further robustness check, we test the relation between M&A failure and the value effect in the (-35,+1) event window. The abnormal returns in this window thus reflect all information released to investors prior to the public announcement date.

We select five control variables for which a large number of US and European M&A studies document an impact on short-term value creation (e.g., Eckbo and Thorburn, 2000; Ang and Kohers, 2001; Campa and Hernando, 2004; Faccio *et al.*, 2006; Martynova and Renneboog, 2006). In particular, we control for relative target size, method of payment, cross-border nature, industry relatedness and whether the acquirer is a UK firm. This final control variable is especially important as about 30% of the transactions in our samples are initiated by UK firms (see Table 1), while the association between the stock market and firm-level decisions is found to be more pronounced in common-law countries (see LaPorta *et al.,* 1998). Even though bid atmosphere is also frequently mentioned as a determinant of short-term announcement returns, we do not include this variable in the models since only 1.5% of the deals in Sample A are classified as hostile in Zephyr, while none of the M&As in Sample B was hostile. The measurement of these control variables is in line with earlier empirical studies on M&A announcement returns (e.g., Andrade *et al.*, 2001; Ang and Kohers, 2001; Campa and Hernando, 2004; Martynova and Renneboog, 2006). Relative firm size (Relsize) represents the ratio of target firm size to acquirer firm size. In Sample A, firm size is captured by market value of equity, with market values being measured 51

days prior to the M&A announcement date. In Sample B, we use total assets as a proxy for firm size, with total assets measured at the end of the fiscal year prior to deal closure. In contrast to market value of equity, total assets is not influenced by the M&A announcement, while measuring total assets at the end of the fiscal year prior to deal closure can more accurately reflect firm size for deals announced during the final months of a year. Market value of equity and total assets are retrieved from Datastream and Amadeus (Bureau van Dijk), respectively. Both ratios are winsorized at 5%–95%. Deal-specific information, i.e., cross-border nature (CB), industry relatedness (Related), method of payment (Cash/Mix) and acquirer location (AUK) is collected from Zephyr. We construct a CB-dummy equal to one if the country of registration of acquirer and target is different and zero otherwise. Industry relatedness is captured by the Related-dummy equal to one if acquirer and target report the same four-digit US SIC code and zero otherwise. The Cash dummy equals one if the transaction is fully paid in cash and zero otherwise. We also include a Mix dummy in our regression models, which is equal to one in case the M&A was paid using a combination of shares and cash and equal to zero otherwise.[28] Year and industry dummies, defined as in Moeller *et al.* (2005), are included but not reported in all models.

IV.2.1. SAMPLE A – Multivariate OLS regression results

We present the multivariate regression results for Sample A in Tables 6–8. More in detail, Table 6 reports the results on the basis of the first failure definition (*Failure1*) and first failure size proxy (*Failure1_size*). In Table 7, the results from the regression models with the second failure definition (*Failure2*) and its complementary failure size proxy (*Failure2_size*) are shown. Table 8 presents the regression results with the third M&A failure definition (*Failure3*). In addition, Tables 9 and 10, respectively, display the robustness checks for the first and second M&A failure definitions using a three-year post-acquisition critical window. Panel A of each table shows the

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[28] We included the use of loan notes, assumed debt and their combination with cash in the Cash group. Converted debt as well as a combination of cash and shares were classified as Mixed payment. In an alternative regression set-up, we used a Share dummy equal to one if the transaction was fully paid in stock and zero otherwise. This did not have any impact on our results.

multivariate regression results for the total (combined) short-term M&A value effect, while Panel B reports these results for the acquirer abnormal returns only. Model0 is the model of abnormal returns including only the five control variables discussed in Section IV.2.[29] Model1 shows the results from the linear regression models on M&A failure in which only cross-border nature, industry relatedness and acquirer location are added as control variables, while Model2 presents these results when additionally controlling for method of payment and relative target size. The reason for distinguishing between Model1 and Model2 is that including both the method of payment and relative target size decreases the sample size to some extent, due to missing observations on these control variables. Even more important, for certain transactions this information could be missing because of a different a priori probability of M&A failure.[30] As a final note, we correct for heteroskedasticity in the regression models using White's consistent estimates of the standard errors of the coefficients to compute *p*-values (see also *e.g.*, Ang and Kohers, 2001; Moeller *et al*., 2004; Grote and Umber, 2007).

The regression results on *Failure1* and *Failure1_size* in Table 6 provide empirical evidence supportive of the semi-strong form information hypothesis, as we find a significant, negative relation between short-term M&A value creation, measured as combined CAR and acquirer CAR in Panel A and Panel B, respectively, and subsequent M&A failure. In particular, these results show that the short-term acquirer value effect upon announcement in the (-1,+1) event window is significantly lower if the M&A destroys shareholder value in a time window up to two years following deal completion. When looking at the M&A value effect in the (-5,+1) window, the negative impact of *Failure1* is significant at conventional levels both in Panel A and Panel B. In addition, the significant negative coefficients on the *Failure1_size* variable for the (-1,+1) window in both Panels indicate that value creation upon deal announcement is even lower if the ultimate shareholder value loss is larger. This negative relation is furthermore robust when looking at the

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[29] The results for Model0 are only included in Table 6, since these results do not change when looking at alternative M&A failure definitions. This allows us to keep the tables manageable.
[30] For example, an acquirer could be reluctant to reveal information on the method of payment if this could potentially point at an overpayment for the target firm.

short-term M&A value effect in the (-5,+1) and the (-35,+1) window, but the association is no longer significant at traditional levels for the latter event window. These results point out that failure-relevant information reaches investors already before the first public announcement of the deal.

< Insert Table 6 >

The regression results from the models including *Failure2* and *Failure2_size*, as presented in Table 7, are consistent with the findings obtained in our regression models with the first category of M&A failure definitions. In particular, we find a consistent negative relation between the short-term combined M&A value effect and M&A failure, but this relation is never significant at traditional levels for the M&A value effect measured in the (-1,+1) event window. When expanding the event window to include the information released before the actual M&A announcement, we find a significant negative association between the short-term combined value effect in the (-35,+1) window and *Failure2_size*, significant at the 10% level. Panel B of Table 7 reports highly robust results when considering the acquirer M&A value effect and additionally shows a significant negative relation between the acquirer abnormal announcement returns and the *Failure2*-dummy in the more extended event windows. These findings add to the notion that short-term abnormal stock returns up to the actual announcement date can reflect M&A failure-relevant information.

< Insert Table 7 >

The regression results on the final M&A failure definition, *Failure3*, in Table 8 are again consistent with the findings presented in Tables 6 and 7. In fact, our results demonstrate a consistent negative relation between the short-term value effect and M&A failure in both Panels, thereby indicating that the combined abnormal returns and the acquirer abnormal returns up to the public announcement date are lower if a majority of the target is divested subsequent to the completion of the deal. Again, we find that this relation is significant at traditional levels only when including the abnormal returns realized before the announcement date. This latter finding

further emphasizes the importance of information known to investors before the official first public announcement of the deal.

< Insert Table 8 >

The results with respect to the control variables are in line with earlier empirical studies on short-term M&A wealth effects (Andrade *et al*., 2001; Martynova and Renneboog, 2006). For example, we find that acquirer abnormal returns in the short event windows are significantly higher in cash-paid transactions. This finding is consistent with the idea that overvalued acquirers use overvalued stock to finance their takeovers, while cash acquisitions signal acquirer undervaluation (e.g., Myers and Majluf, 1984; Rhodes-Kropf and Viswanathan, 2004). Furthermore, our results indicate that M&As initiated by UK acquirers generate significantly lower acquirer abnormal returns upon announcement. In line with the argument offered by Martynova and Renneboog (2006), these results suggest that high competition for listed UK targets stimulates UK acquirers to pay higher takeover premiums and thus accept lower abnormal returns for their own shareholders.[31] Finally, we report some empirical support that relatively large transactions result in significantly higher combined abnormal returns in short event windows, indicating that a larger size of the target firm may reflect more synergy opportunities.[32]

Overall, the multivariate regression results for Sample A are supportive of the semi-strong form market efficiency hypothesis, since we find a robust, significant and negative association between M&A value creation at deal announcement and subsequent M&A failure, estimated by three complementary proxies: inferior long-term stock performance of the combined firm, inferior long-term operating performance of the combined firm, and target divestment. We acknowledge that the models can only explain a small fraction of the M&A value effects at deal announcement, but the relatively low adjusted R^2 is fully in line with earlier short-term M&A value studies (see e.g., Kaplan and Weisbach, 1992; Ang and Kohers, 2001; Moeller and Schlingemann, 2005; Kedia

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[31] About 70% and 60% of all takeovers initiated by UK acquirers includes a UK target in Sample A and Sample B, respectively.

[32] Non-reported results on the industry dummies in the extended event windows suggest that the short-term M&A value effect in Sample A is significantly lower for acquirers in the transportation and business services sector.

et al., 2005). In addition, the robustness checks in Tables 9 and 10 indicate that these results do not qualitatively change when considering a three-year critical period following deal completion. More specifically, the regression models on the first failure definition in Table 9 consistently yield a negative impact of *Failure1* and *Failure1_size* on short-term value creation, yet these effects are no longer significant at conventional levels when exploring the short-term combined abnormal returns (Panel A). The robustness checks on *Failure2* and *Failure2_size* using a three-year critical period are consistent with the regression results presented in Table 7. We find a significant negative impact of the M&A failure-size proxy on both the combined and the acquirer announcement returns. However, the association between acquirer abnormal returns and the *Failure2*-dummy is no longer significant. The slightly stronger results on the basis of *Failure2_size* emphasize that at deal announcement market participants do not only anticipate whether the M&A will outperform a relevant benchmark, but also how much value is actually created or destroyed by the deal.

< Insert Tables 9–10 >

IV.2.2. SAMPLE B – Multivariate OLS regression results

Tables 11, 12 and 13 show the multivariate regression results for the short-term acquirer abnormal returns in Sample B on the first, second and third M&A failure definitions, respectively. Model0 is the control model on the abnormal acquirer returns including CB, Related, AUK, Cash and Mix only (Table 11). Model1 presents the association between M&A failure and short-term value when controlling for the cross-border nature of the deal, the industry relatedness of acquirer and target, and the UK nationality of the acquirer. In Model2, the method of payment is included as an additional control variable. Table 14 shows a robustness check on these regression results by adding relative target size (total assets) as a control variable to Model1. Panel A of Table 14 shows the results for the first failure definition, while Panel B presents the results for *Failure2*, *Failure2_size* and *Failure3*.[33] The robustness checks on the first and second M&A failure

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[33] In Table 14, the control model (Model0) includes cross-border nature, industry relatedness, whether the acquirer is a UK firm and relative target size.

definitions using a three-year critical post-M&A window are presented in Tables 15 and 16, respectively.

The findings for Sample B on the first M&A failure definition, *Failure1* and *Failure1_size*, provide some empirical support for the idea that the stock market is able to predict which private-target M&As will create or destroy shareholder value by the end of a two-year critical period following deal completion. More specifically, we report a consistent negative association between the short-term acquirer abnormal returns and the M&A failure proxies in Table 11, yet the reported effects are only significant at traditional levels when examining the (-1,+1) event window. In line with the regression results for Sample A, our findings point out that the short-term value effect to acquirers of private targets is lower on average when the M&A destroys shareholder value up to two years following deal completion. Furthermore, the significant negative coefficients on *Failure1_size* in Model1 and Model2 suggest that the short-term M&A value effect is even lower when the long-term value loss is larger. Again, this finding is consistent with the results obtained for the acquirers in Sample A.

< Insert Table 11 >

The results for the multivariate regression analysis of the acquirer abnormal returns on the second M&A failure definition in Sample B, presented in Table 12, do not support the hypothesis of semi-strong market efficiency. The regression models point out a positive impact of *Failure2* and *Failure2_size* on the short-term acquirer abnormal returns, yet these effects are only statistically significant in one of the models. These results thus indicate that investors cannot anticipate accurately whether the M&A will improve operating performance of the combined firm based on the information released upon the announcement of the private-target deal.

The empirical results for the final M&A failure definition (*Failure3*) for Sample B, presented in Table 13, are in line with the regression results on *Failure2* and *Failure2_size*. In fact, the multivariate regression models estimate a positive relation between M&A failure and the short-term M&A value effect realized by acquiring shareholders, but again this association is only found

to be significant in one of the models. Hence, the semi-strong efficiency hypothesis is not supported by the results on target divestments in this sample of private M&As.

< Insert Tables 12–13 >

The estimated coefficients for the control variables indicate that, in contrast to the results found in Sample A, UK acquirers of private targets realize higher short-term abnormal returns. Interestingly, the results further suggest that the use of cash and mixed payment in these deals generates lower acquirer abnormal returns. This latter finding is consistent with the argument that payments including a fraction of cash are perceived as being more risky in acquisitions of unlisted targets, because of increased information asymmetry issues (see e.g., Hansen, 1987).

From the multivariate regression analysis for Sample B, we conclude that the evidence in favor of the semi-strong efficiency hypothesis is rather weak. Whereas we find a consistent negative significant impact of *Failure1* and *Failure1_size* on the short-term acquirer value effect, these results are not supported by the models including the two alternative M&A failure proxies. In addition, these latter models estimate a positive impact of M&A failure on acquirer abnormal announcement returns, but the effects are generally not found to be significant at traditional levels. Including relative target size as a control variable does not change these conclusions (see Table 14). Likewise, the robustness checks using a three-year critical period after deal completion to assess ultimate M&A value creation confirm these puzzling findings as we report a significant negative impact of *Failure1* and *Failure1_size* and a non-significant positive impact of *Failure2* and *Failure2_size* on the acquirer abnormal returns (Tables 15–16). A potential reason for these results could be that market participants can obtain only limited information about the small and unlisted target firms which makes it more difficult for the average investor to anticipate the outcome of the M&As in this sample.[34] In addition, since only about 3% of the deals in Sample B is a failure

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[34] By splitting up the Sample B in 'large' and 'small' deals, using the median value of relative target size (measured in total assets) as a cut-off value, we tried to test whether this asymmetric information hypothesis offers an acceptable explanation for our results. Unfortunately, the lack of data on target total assets decreased the number of observations drastically to 39 in the 'large' subsample. Therefore, we were unable to obtain any meaningful result from this split-sample analysis.

according to the third failure definition, it would a priori be even more difficult for the average investor to distinguish between failing and successful M&As.

< Insert Tables 14–16 >

V. Conclusions

This paper empirically investigates M&A failure in Europe during 1997–2006. Using three complementary M&A failure proxies, i.e., inferior long-term stock performance of the combined firm, inferior operating performance of the combined firm, and target divestment, we report M&A failure rates roughly between 38% and 53% for acquisitions of listed targets, while approximately only 7.2% of these M&As is divested after the deal was completed. The M&A failure rates for acquisitions of private targets are slightly lower, yet the differences are smaller than expected. When looking at the average M&A effect, we find some evidence that acquisitions of private targets generate more value than public-target acquisitions, both when considering abnormal stock performance of the combined firm and abnormal operating performance of the combined firm. In addition, we examine whether the average market participant can already assess at deal announcement whether the M&A will ultimately destroy shareholder value. When targets are listed firms, we find robust evidence that stock markets anticipate M&A value creation well: the results indicate that the short-term value effect at announcement is significantly lower for failing M&As. Furthermore, abnormal announcement returns are worse if the long-term M&A loss is larger. These findings continue to hold when looking at acquirer abnormal returns only and when taking into account a longer critical post-M&A integration period. Yet, when targets are privately held firms, the expected relation between the short-term value effect to acquiring shareholders and M&A failure is no longer robust. We find a significant negative association between the short-term and the long-term shareholder value effect (*Failure1* and *Failure1_size*), but these findings are not confirmed by our analysis on operating performance and target divestment. Potentially, the more limited public available information about the small and unlisted targets makes a correct assessment of the deal more difficult for the average investor at the M&A announcement date.

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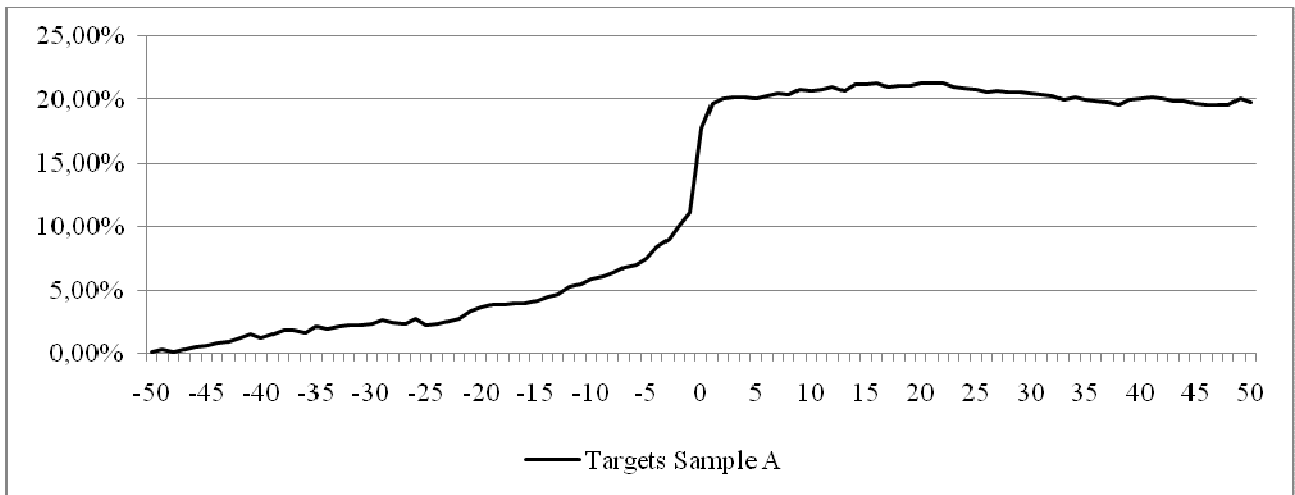
Figure 1: Sample A - Target cumulative abnormal returns (-50;+50)
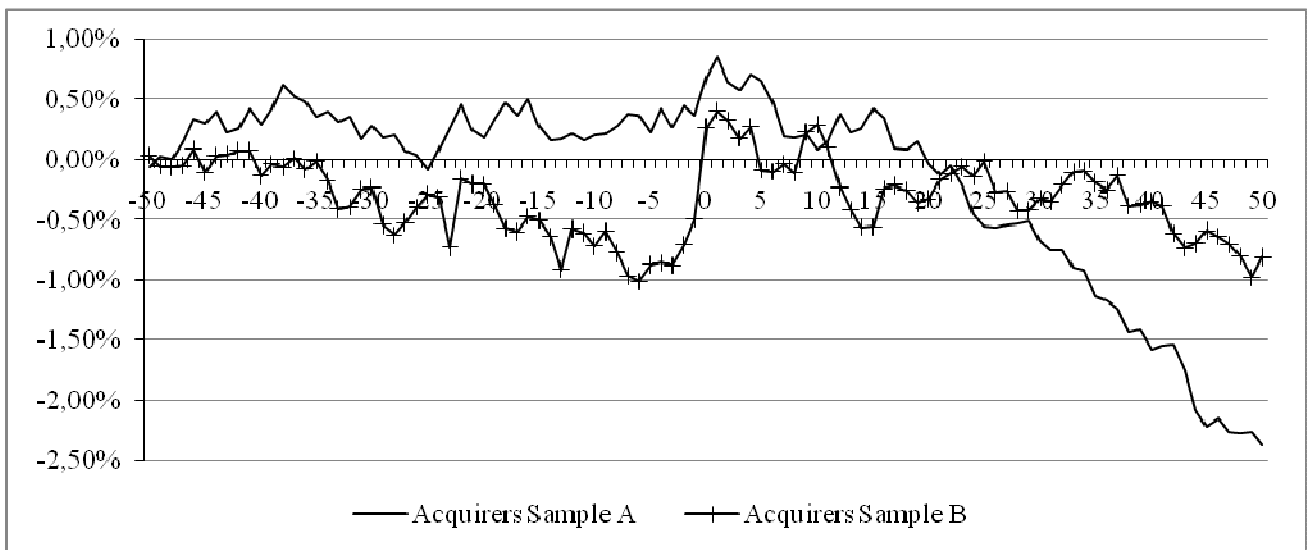
Figure 2: Sample A and Sample B - Acquirer cumulative abnormal returns (-50;+50)
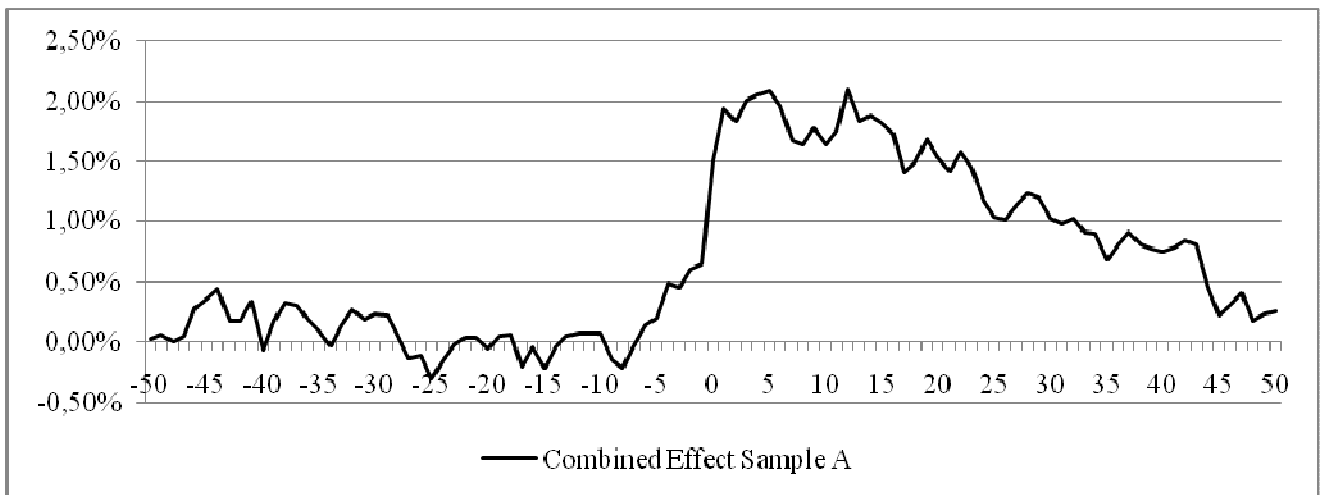
Figure 3: Sample A - Combined cumulative abnormal returns (-50; +50)

Table 1: Time, industry and geographic distribution of Sample A and Sample B

	Panel A: Sample A	Panel B: Sample B
Announcement year		
1997	5	17
1998	18	27
1999	22	31
2000	29	44
2001	39	49
2002	53	42
2003	53	34
2004	57	33
2005	71	54
2006	54	41
Acquirer Industry		
SIC 0 - Agriculture	0	1
SIC 1 - Mining	36	30
SIC 2 - Food	78	78
SIC 3 - Manufacturing	81	85
SIC 4 - Transportation	55	37
SIC 5 - Wholesale	29	28
SIC 7 - Personal and Business Services	97	95
SIC 8 - Health, Legal and Social Services	25	15
SIC 9 - Administration	0	2
missing observations	0	1
Acquirer (Target) Location		
Europe	356 (328)	303 (309)
Continental Europe	238 (208)	199 (210)
UK	118 (120)	104 (99)
USA	39 (47)	57 (35)
Asia	5 (6)	5 (7)
Other	1 (20)	7 (21)
All	401	372

Table 2: Deal-specific characteristics for Sample A and Sample B

A merger is defined as a one-for-one share swap for shares in the new company. Any deal where the acquirer ends up with 50% or more of the votes of the target is classified as an acquisition in Zephyr. If acquirer and target operate in the same 4-digit US SIC code industry, the deal is related. If an M&A is fully paid in cash, the cash dummy is set to one; otherwise this dummy equals zero. Likewise, the stock dummy and mix dummy are equal to one for fully stock-paid and mixed-paid transactions and equal to zero otherwise. If acquirer and target are not registered in the same country, the M&A has a cross-border nature, otherwise the M&A is domestic. Relative target size is measured as the ratio of target size to acquirer size. For Sample A, market value of equity, measured 51 days prior to deal announcement, is used as a proxy for firm size. For Sample B, we proxy firm size by total assets at the end of the fiscal year prior to deal completion. Acquired stake is the fraction of the target's shares purchased by the acquirer.

	Panel A: Sample A	Panel B: Sample B
Deal Type		
Acquisition	393	369
Merger	8	3
Industry Relatedness		
Related	163	152
Unrelated	237	218
missing observations	1	2
Method of Payment		
Cash	179	92
Mixed	73	55
Shares	80	21
missing observations	69	204
Cross-Border Nature		
Cross-Border	219	229
Domestic	182	143
Bid Atmosphere		
Friendly	395	372
Hostile	6	0
Number of Bidders		
One	386	372
More than one (competed deal)	15	0
All	401	372

Relative target size		
Sample A: Market Value of Equity		
Sample B: Total Assets		
mean (%)	34.74	6.88
median (%)	15.37	1.75
standard deviation	0.4881	0.1215
skewness	2.1667	2.3092
minimum (%)	0.51	0.05
Q1 (%)	4.09	0.41
Q3 (%)	40.82	5.17
maximum (%)	193.45	45.53
N	290	84
missing observations	111	288
Acquired Stake		
mean (%)	88.85	93.54
median (%)	100.00	100.00
standard deviation	0.1649	0.1512
skewness	-1.1461	-2.1417
minimum (%)	50.01	50.00
Q1 (%)	76.68	100.00
Q3 (%)	100.00	100.00
maximum (%)	100.00	100.00
N	401	359
missing observations	0	13

Table 3: M&A average short-term shareholder wealth effects: Acquirer, Target and Combined Cumulative Abnormal Returns

N is the number of observations. T_{DW} represents the Dodd and Warner (1983) test statistic for acquirer and target abnormal returns and T_{HR} represents the Houston and Ryngaert (1994) statistic for combined abnormal returns. T_{rank} is the Wilcoxon Signed-Rank Sum test statistic. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Reported cumulative abnormal returns are winsorized at 5%-95%.

Event window	Panel A: Sample A					Panel B: Sample B				
	(-1,0)	(-1,+1)	(-5,+1)	(-35,+1)	(-50,+1)	(-1,0)	(-1,+1)	(-5,+1)	(-35,+1)	(-50,+1)
ACQUIRERS										
N	401	401	401	401	401	372	372	372	372	372
CAAR (%) entire sample	0.0309	0.2355	0.4835	0.3901	0.7521	**0.7070***	**0.9425***	**1.2473***	0.6668	0.6337
T_{DW}	2.58876	2.9249	2.1950	1.8482	1.7659	5.2603	5.6238	4.1755	1.0667	1.1275
p-value	(0.0048)	(0.0017)	(0.0141)	(0.0323)	(0.0387)	(0.0000)	(0.0000)	(0.0000)	(0.1431)	(0.1298)
T_{rank}	-570.5	875.5	1811.5	990.5	1576.5	7673	6304	5786	389	630
p-value	(0.8063)	(0.7067)	(0.4361)	(0.6703)	(0.4979)	(0.0002)	(0.0023)	(0.0052)	(0.8516)	(0.7619)
TARGETS										
N	325	325	325	325	325					
CAAR (%) entire sample	**7.1732***	**9.0618***	**11.7674***	**17.3199***	**18.9306***					
T_{DW}	38.6171	38.0531	31.9518	22.3423	20.1333					
p-value	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)					
T_{rank}	15344.5	16977.5	17452.5	17152.5	16482.5					
p-value	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)					
COMBINED										
N	263	263	263	263	263					
CAAR (%) entire sample	**0.7585**	**1.1431***	**1.6907***	2.0907	2.0995					
T_{HR}	8.1639	8.5269	7.0472	3.4054	2.7130					
p-value	(0.0000)	(0.0000)	(0.0000)	(0.0003)	(0.0033)					
T_{rank}	2681	3437	3700	1960	1933					
p-value	(0.0296)	(0.0052)	(0.0026)	(0.1126)	(0.1177)					

Table 4: M&A failure statistics according to three M&A failure definitions: long-term abnormal stock performance, long-term abnormal operating performance and target divestment

Failure1 equals one if the BHAR of the acquirer up to two years following deal completion are negative, and zero otherwise. *Failure2* equals one if the operating performance of the combined firm is lower than the estimated combined performance of acquirer and target following the Gugler *et al.* (2003) methodology after a two-year period following the year of M&A completion. *Failure2* equals zero otherwise. *Failure3* equals one if the acquirer divested at least a 50% stake in the target after deal completion, and zero otherwise.

	Sample A		Sample B	
	Number of deals	%	Number of deals	%
Panel A : Failure rates				
Failure 1:				
M&A has failed if BHAR to acquiring firm up to two years following deal completion is negative.				
Failed	179	44.64	156	41.94
Non-failed	167	41.65	153	41.13
Unknown	55	13.72	63	16.94
Failed/(Failed + Non-failed)	179	51.73	156	50.49
Failure 1 (robustness):				
M&A has failed if BHAR to acquiring firm up to three years following deal completion is negative.				
Failed	182	45.39	154	41.40
Non-failed	164	40.90	155	41.67
Unknown	55	13.72	63	16.94
Failed/(Failed + Non-failed)	182	52.60	154	49.84
Failure 2:				
M&A has failed if actual performance of the combined firm is lower than the estimated performance (Gugler *et al.*, 2003) after two-year window following deal completion.				
Failed	89	22.19	22	5.91
Non-failed	143	35.66	48	12.90
Unknown	169	42.14	302	81.18
Failed/(Failed + Non-failed)	89	38.36	22	31.43
Failure 2 (robustness):				
M&A has failed if actual performance of the combined firm is lower than the estimated performance (Gugler *et al.*, 2003) after three-year window following deal completion.				
Failed	65	16.21	17	4.57
Non-failed	106	26.43	28	7.53
Unknown	230	57.36	327	87.90
Failed/(Failed + Non-failed)	65	38.01	17	37.78
Failure 3:				
M&A has failed if > 50% in target is divested subsequent to deal completion				
Failed	29	7.23	12	3.23
Non-failed	372	92.77	360	96.77

Table 4 (continued)

Failure1_size equals the reversal of the BHAR of the acquirer up to two years following deal completion. *Failure2_size* is the ratio of the difference between estimated and realized EBITDA to total assets of the combined firm. *Failure1_size* and *Failure2_size* are winsorized at 5% - 95%. Significance levels according to Student t-statistics (mean) and the Wilcoxon signed rank test (median). ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively.

	Sample A		Sample B	
	2-year period	3-year period	2-year period	3-year period
Panel B: Summary Statistics Failure Size				
Failure1_size				
-BHAR				
mean (%)	8.24**	9.57*	-2.15	-0.66
median (%)	5.06*	2.54	0.36	-0.03
standard deviation	0.7341	0.9560	0.7170	0.8962
skewness	0.1789	0.2709	-0.0156	-0.0006
min (%)	-129.93	-171.06	-149.41	-185.73
Q1 (%)	-39.73	-45.88	-47.29	-55.04
Q3 (%)	54.20	61.01	42.51	45.47
max (%)	160.92	227.15	142.92	181.41
N	346	346	309	309
missing observations	55	55	63	63
Failure2_size				
(estimated EBITDA - realized EBITDA)/Total Assets (Gugler *et al*., 2003)				
mean (%)	1.22	-1.53	-8.73**	10.77
median (%)	-2.17**	-2.37**	-3.31**	-3.16
standard deviation	0.1653	0.3187	0.2837	0.4974
skewness	1.6491	-0.4043	-2.3623	2.7580
min (%)	-21.77	-92.43	-100.74	-45.84
Q1 (%)	-6.82	-8.38	-11.82	-9.87
Q3 (%)	3.40	3.80	3.45	12.03
max (%)	53.50	78.87	25.86	180.28
N	232	171	70	45
missing observations	169	230	302	327

Table 5: Congruence of Different Failure Definitions

N is the number of observations for which the failure definitions are available. *'% overlap'* represents the fraction of deals that are classified identically according to the different respective failure definitions. *'% corr'* is the Pearson correlation between *Failure1_size* and *Failure2_size*. P-values are added between brackets. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively.

		Panel A: Sample A				Panel B: Sample B		
Overlap		Failure1	Failure2	Failure3		Failure1	Failure2	Failure3
Failure1	% overlap	100			% overlap	100		
	N	346			N	309		
Failure2	% overlap	57.43	100		% overlap	55.73	100	
	N	202	232		N	61		
Failure3	% overlap	50.29	65.95	100	% overlap	51.46	66.35	100
	N	346	232	401	N	309	70	372
Correlation		Failure1_size	Failure2_size			Failure1_size	Failure2_size	
Failure1_size	% corr	100			% corr	100		
	(p-value)				(p-value)			
	N	346			N	309		
Failure2_size	% corr	16.50**	100		% corr	18.16	100	
	(p-value)	(0.019)			(p-value)	(0.161)		
	N	202	232		N	61	70	

Table 6: SAMPLE A – Multivariate OLS of short-term announcement effect on first M&A failure definition and M&A failure size

N is the number of observations used in the OLS regressions. *Failure1* equals one if the BHAR of the acquirer up to two years following deal completion are negative, and zero otherwise. *Failure1_size* equals the reversal of the BHAR of the acquirer up to two years following deal completion. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. Relsize is the ratio of the target market value of equity to acquirer market value of equity, with market values measured at 51 trading days prior to the M&A announcement. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model0 includes the control variables only. Model1 tests the relation between M&A failure and short-term value creation after controlling for cross-border nature, industry relatedness and whether the acquirer is a UK firm. Model2 additionally controls for relative target size and method of payment. The combined abnormal returns and Relsize are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model0			Model1			Model2			Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
Panel A: Combined CAR															
C	0.0184	0.0433	**0.1288****	**0.0345****	**0.0638*****	**0.1346*****	0.0306	**0.0688****	**0.1598****	**0.0282***	**0.0537****	**0.1181****	0.0222	**0.0542***	**0.1344****
p-value	(0.342)	(0.125)	**(0.021)**	**(0.036)**	**(0.008)**	**(0.005)**	(0.175)	**(0.023)**	**(0.011)**	**(0.072)**	**(0.015)**	**(0.011)**	(0.306)	**(0.056)**	**(0.028)**
Failure1				-0.0124	**-0.0185***	-0.0267	-0.0135	**-0.0204***	-0.0281						
p-value				(0.123)	**(0.076)**	(0.136)	(0.122)	**(0.075)**	(0.149)						
Failure1_size										**-0.0093***	-0.0101	-0.0056	**-0.0097***	-0.0107	-0.0048
p-value										**(0.078)**	(0.167)	(0.655)	**(0.093)**	(0.178)	(0.724)
CB	0.0015	-0.0004	-0.0125	0.0112	0.0133	0.0016	0.0106	0.0110	0.0008	0.0103	0.0125	0.0015	0.0102	0.0105	0.0003
p-value	(0.865)	(0.970)	(0.532)	(0.191)	(0.231)	(0.932)	(0.249)	(0.368)	(0.971)	(0.222)	(0.262)	(0.941)	(0.263)	(0.393)	(0.989)
Related	0.0066	0.0031	0.0099	0.0030	-0.0036	0.0037	0.0060	-0.0006	0.0031	0.0022	-0.0042	0.0044	0.0046	-0.0019	0.0034
p-value	(0.429)	(0.776)	(0.595)	(0.721)	(0.741)	(0.840)	(0.505)	(0.956)	(0.881)	(0.797)	(0.700)	(0.817)	(0.611)	(0.870)	(0.868)
AUK	**-0.0197****	-0.0150	-0.0151	-0.0092	-0.0030	-0.0016	**-0.0166***	-0.0115	-0.0143	-0.0086	-0.0020	-0.0003	**-0.0157***	-0.0103	-0.0127
p-value	**(0.027)**	(0.226)	(0.487)	(0.312)	(0.800)	(0.939)	**(0.086)**	(0.378)	(0.540)	(0.342)	(0.863)	(0.991)	**(0.098)**	(0.429)	(0.590)
Relsize	0.0155	0.0194	0.0247				**0.0210****	**0.0265***	0.0342				**0.0215****	**0.0271***	0.0346
p-value	(0.113)	(0.169)	(0.348)				**(0.043)**	**(0.096)**	(0.251)				**(0.038)**	**(0.091)**	(0.257)
Cash	**0.0185***	**0.0223***	0.0325				0.0176	0.0186	0.0222				0.0159	0.0172	0.0238
p-value	**(0.061)**	**(0.097)**	(0.207)				(0.107)	(0.219)	(0.438)				(0.159)	(0.273)	(0.421)
Mix	0.0192	0.0137	-0.0028				0.0171	0.0057	-0.0259				0.0166	0.0056	-0.0243
p-value	(0.128)	(0.425)	(0.921)				(0.223)	(0.770)	(0.426)				(0.239)	(0.778)	(0.458)
N	238	238	238	233	233	233	214	214	214	233	233	233	214	214	214
N (Failure1 = 1)				129	129	129	118	118	118	129	129	129	118	118	118
adj. R²	0.0136	-0.0078	0.0126	0.0064	0.0050	0.0008	0.0263	0.0170	0.0216	0.0109	0.0003	-0.0098	0.0295	0.0104	0.0098

Table 6 (continued) SAMPLE A – Multivariate OLS of short-term announcement effect on first M&A failure definition and M&A failure size

N is the number of observations used in the OLS regressions. *Failure1* equals one if the BHAR of the acquirer up to two years following deal completion are negative, and zero otherwise. *Failure1_size* equals the reversal of the BHAR of the acquirer up to two years following deal completion. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. Relsize is the ratio of the target market value of equity to acquirer market value of equity, with market values measured at 51 trading days prior to the M&A announcement. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model0 includes the control variables only. Model1 tests the relation between M&A failure and short-term value creation after controlling for cross-border nature, industry relatedness and whether the acquirer is a UK firm. Model2 additionally controls for relative target size and method of payment. The acquirer abnormal returns and Relsize are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model0			Model1			Model2			Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
Panel B: Acquirer CAR															
C	0.0041	0.0246	**0.0956****	**0.0189****	**0.0380*****	**0.1040*****	0.0110	**0.0460***	**0.1350****	0.0143	**0.0290****	**0.0915*****	0.0028	0.0326	**0.1175****
p-value	(0.798)	(0.258)	**(0.033)**	**(0.038)**	**(0.008)**	**(0.000)**	(0.569)	**(0.078)**	**(0.012)**	(0.101)	**(0.036)**	**(0.001)**	(0.880)	(0.177)	**(0.020)**
Failure1				**-0.0099***	**-0.0179****	**-0.0236***	**-0.0145***	**-0.0213****	-0.0234						
p-value				**(0.082)**	**(0.014)**	**(0.097)**	**(0.068)**	**(0.042)**	(0.235)						
Failure1_size										**-0.0093****	**-0.0129****	-0.0122	**-0.0101***	**-0.0124***	-0.0086
p-value										**(0.018)**	**(0.011)**	(0.256)	**(0.060)**	**(0.078)**	(0.548)
CB	-0.0016	-0.0019	-0.0193	-0.0031	0.0017	**-0.0269***	0.0039	0.0036	-0.0154	-0.0035	0.0014	**-0.0268***	0.0035	0.0031	-0.0158
p-value	(0.836)	(0.856)	(0.326)	(0.609)	(0.831)	**(0.089)**	(0.649)	(0.759)	(0.476)	(0.569)	(0.856)	**(0.093)**	(0.677)	(0.791)	(0.465)
Related	0.0024	0.0009	0.0137	-0.0032	-0.0082	0.0005	0.0022	-0.0017	0.0108	-0.0043	-0.0096	-0.0005	0.0005	-0.0036	0.0098
p-value	(0.735)	(0.921)	(0.448)	(0.575)	(0.257)	(0.971)	(0.791)	(0.871)	(0.591)	(0.450)	(0.186)	(0.972)	(0.951)	(0.731)	(0.626)
AUK	**-0.0199*****	-0.0145	-0.0336	**-0.0137***	-0.0098	**-0.0317***	**-0.0200****	-0.0166	-0.0374	**-0.0131***	-0.0088	**-0.0305***	**-0.0189****	-0.0150	-0.0357
p-value	**(0.010)**	(0.185)	(0.106)	**(0.051)**	(0.270)	**(0.078)**	**(0.024)**	(0.167)	(0.103)	**(0.062)**	(0.323)	**(0.091)**	**(0.030)**	(0.209)	(0.119)
Relsize	0.0120	0.0106	0.0088				**0.0174***	0.0152	0.0051				**0.0179***	0.0160	0.0057
p-value	(0.161)	(0.308)	(0.698)				**(0.090)**	(0.232)	(0.844)				**(0.079)**	(0.208)	(0.826)
Cash	**0.0194****	**0.0194***	0.0269				**0.0199***	0.0162	0.0206				**0.0182***	0.0145	0.0205
p-value	**(0.029)**	**(0.098)**	(0.275)				**(0.060)**	(0.242)	(0.467)				**(0.093)**	(0.310)	(0.478)
Mix	0.0136	0.0029	-0.0052				0.0159	-0.0030	-0.0156				0.0153	-0.0035	-0.0151
p-value	(0.194)	(0.834)	(0.855)				(0.196)	(0.855)	(0.641)				(0.218)	(0.836)	(0.653)
N	261	261	261	345	345	345	229	229	229	345	345	345	229	229	229
N (Failure1 = 1)				179	179	179	127	127	127	179	179	179	127	127	127
adj. R²	0.0135	-0.0081	0.0087	-0.0052	0.0129	0.0163	0.0206	0.0181	0.0126	0.0039	0.0151	0.0125	0.0225	0.0126	0.0071

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Table 7: SAMPLE A - Multivariate OLS regression of short-term announcement effect on second M&A failure definition and M&A failure size

N is the number of observations used in the OLS regressions. *Failure2* equals one if the operating performance of the combined firm is lower than the estimated combined performance of acquirer and target following the Gugler *et al.* (2003) methodology after a two-year period following the year of M&A completion. *Failure2* equals zero otherwise. *Failure2_size* is the ratio of the difference between estimated and realized EBITDA to total assets of the combined firm. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. Relsize is the ratio of the target market value of equity to acquirer market value of equity, with market values measured at 51 trading days prior to the M&A announcement. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model1 tests the relation between M&A failure and short-term value creation after controlling for cross-border nature, industry relatedness and whether the acquirer is a UK firm. Model2 additionally controls for relative target size and method of payment. The combined abnormal returns and Relsize are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model1			Model2			Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
Panel A: Combined CAR												
C	**0.0312***	**0.0604***	**0.1413***	0.0233	0.0564	**0.1531***	0.0292	**0.0562***	**0.1302***	0.0201	0.0517	**0.1378***
p-value	**(0.093)**	**(0.034)**	**(0.014)**	(0.287)	(0.103)	**(0.033)**	(0.105)	**(0.044)**	**(0.022)**	(0.354)	(0.123)	**(0.051)**
Failure2	-0.0013	-0.0058	-0.0165	-0.0033	-0.0055	-0.0222						
p-value	(0.896)	(0.660)	(0.478)	(0.749)	(0.677)	(0.372)						
Failure2_size							-0.0334	-0.0526	**-0.1314***	-0.0328	-0.0482	**-0.1446***
p-value							(0.288)	(0.211)	**(0.065)**	(0.315)	(0.255)	**(0.062)**
CB	0.0033	0.0007	-0.0189	0.0027	-0.0008	-0.0201	0.0035	0.0010	-0.0180	0.0029	-0.0004	-0.0193
p-value	(0.750)	(0.958)	(0.410)	(0.814)	(0.959)	(0.468)	(0.734)	(0.935)	(0.429)	(0.796)	(0.977)	(0.487)
Related	0.0036	-0.0034	-0.0051	0.0108	0.0043	0.0087	0.0027	-0.0047	-0.0084	0.0103	0.0035	0.0064
p-value	(0.733)	(0.802)	(0.831)	(0.338)	(0.767)	(0.742)	(0.796)	(0.725)	(0.722)	(0.356)	(0.809)	(0.804)
AUK	-0.0062	-0.0017	-0.0035	-0.0166	-0.0109	-0.0151	-0.0082	-0.0042	-0.0095	-0.0183	-0.0133	-0.0211
p-value	(0.561)	(0.902)	(0.887)	(0.152)	(0.480)	(0.590)	(0.442)	(0.757)	(0.693)	(0.114)	(0.391)	(0.443)
Relsize				**0.0311***	0.0351	0.0332				**0.0320***	**0.0362***	0.0356
p-value				**(0.041)**	(0.106)	(0.425)				**(0.029)**	**(0.091)**	(0.392)
Cash				0.0179	0.0203	0.0261				0.0198	0.0229	0.0332
p-value				(0.157)	(0.241)	(0.476)				(0.120)	(0.189)	(0.367)
Mix				0.0105	0.0002	-0.0216				0.0113	0.0013	-0.0187
p-value				(0.531)	(0.994)	(0.567)				(0.497)	(0.953)	(0.614)
N	170	170	170	155	155	155	170	170	170	155	155	155
N (Failure2 = 1)	64	64	64	59	59	59	64	64	64	59	59	59
adj. R²	-0.0336	-0.0233	-0.0024	0.0255	0.0152	0.0145	-0.0252	-0.0125	0.0178	0.0326	0.0237	0.0349

Table 7 (continued) SAMPLE A - Multivariate OLS regression of short-term announcement effect on second M&A failure definition and M&A failure size

N is the number of observations used in the OLS regressions. *Failure2* equals one if the operating performance of the combined firm is lower than the estimated combined performance of acquirer and target following the Gugler *et al.* (2003) methodology after a two-year period following the year of M&A completion. *Failure2* equals zero otherwise. *Failure2_size* is the ratio of the difference between estimated and realized EBITDA to total assets of the combined firm. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one is the acquirer is a UK-firm and zero otherwise. Relsize is the ratio of the target market value of equity to acquirer market value of equity, with market values measured at 51 trading days prior to the M&A announcement. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model1 tests the relation between M&A failure and short-term value creation after controlling for cross-border nature, industry relatedness and whether the acquirer is a UK firm. Model2 additionally controls for relative target size and method of payment. The acquirer abnormal returns and Relsize are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model1			Model2			Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
Panel B: Acquirer CAR												
C	**0.0207****	**0.0353***	**0.1157*****	0.0077	0.0386	**0.1315****	**0.0182***	0.0293	**0.0953*****	0.0040	0.0313	**0.1112****
p-value	**(0.049)**	**(0.071)**	**(0.001)**	(0.676)	(0.153)	**(0.013)**	**(0.081)**	(0.124)	**(0.007)**	(0.829)	(0.240)	**(0.040)**
Failure2	-0.0065	**-0.0157***	**-0.0540*****	-0.0065	-0.0137	**-0.0461***						
p-value	(0.369)	**(0.086)**	**(0.004)**	(0.483)	(0.229)	**(0.052)**						
Failure2_size							-0.0302	**-0.0581****	**-0.1734*****	-0.0341	**-0.0651***	**-0.1686****
p-value							(0.154)	**(0.037)**	**(0.001)**	(0.238)	**(0.068)**	**(0.014)**
CB	-0.0048	-0.0066	**-0.0410****	-0.0033	-0.0077	-0.0373	-0.0044	-0.0059	**-0.0387****	-0.0030	-0.0073	-0.0362
p-value	(0.525)	(0.512)	**(0.031)**	(0.751)	(0.564)	(0.120)	(0.558)	(0.559)	**(0.042)**	(0.767)	(0.584)	(0.135)
Related	0.0044	0.0039	0.0131	0.0129	0.0075	0.0167	0.0034	0.0020	0.0073	0.0122	0.0062	0.0137
p-value	(0.548)	(0.682)	(0.479)	(0.176)	(0.547)	(0.477)	(0.636)	(0.833)	(0.691)	(0.192)	(0.613)	(0.557)
AUK	**-0.0156***	-0.0130	**-0.0423***	**-0.0214****	-0.0171	**-0.0408***	**-0.0158***	-0.0131	**-0.0416***	**-0.0220****	-0.0180	**-0.0412***
p-value	**(0.066)**	(0.241)	**(0.051)**	**(0.035)**	(0.200)	**(0.095)**	**(0.059)**	(0.235)	**(0.055)**	**(0.029)**	(0.171)	**(0.083)**
Relsize				0.0200	0.0213	0.0185				**0.0201***	0.0213	0.0163
p-value				(0.115)	(0.154)	(0.495)				**(0.096)**	(0.133)	(0.533)
Cash				**0.0272****	**0.0258***	0.0300				**0.0284*****	**0.0279****	0.0340
p-value				**(0.012)**	**(0.056)**	(0.322)				**(0.009)**	**(0.036)**	(0.251)
Mix				0.0144	-0.0041	-0.0097				0.0148	-0.0034	-0.0088
p-value				(0.302)	(0.816)	(0.788)				(0.288)	(0.846)	(0.802)
N	232	232	232	169	169	169	232	232	232	169	169	169
N (Failure2 = 1)	89	89	89	65	65	65	89	89	89	65	65	65
adj. R²	-0.0137	-0.0070	0.0464	0.0400	0.0448	0.0504	-0.0080	0.0000	0.0529	0.0465	0.0568	0.0605

Table 8: SAMPLE A- Multivariate OLS regression of short-term announcement effect on third M&A failure definition

N is the number of observations used in the OLS regressions. *Failure3* equals one if the acquirer divested at least a 50% stake in the target after deal completion, and zero otherwise. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. Relsize is the ratio of the target market value of equity to acquirer market value of equity, with market values measured at 51 trading days prior to the M&A announcement. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model1 tests the relation between M&A failure and short-term value creation after controlling for cross-border nature, industry relatedness and whether the acquirer is a UK firm. Model2 additionally controls for relative target size and method of payment. The acquirer abnormal returns and Relsize are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Panel A: Combined CAR						Panel B: Acquirer CAR					
	Model1			Model2			Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
C	**0.0274***	**0.0456****	**0.1129*****	0.0196	0.0463	**0.1364****	**0.0164***	**0.0250**	**0.0833*****	0.0034	0.0264	**0.1013****
p-value	**(0.061)**	**(0.042)**	**(0.010)**	(0.318)	(0.102)	**(0.015)**	**(0.051)**	**(0.077)**	**(0.003)**	(0.831)	(0.227)	**(0.024)**
Failure3	-0.0159	**-0.0456****	**-0.0925****	-0.0141	-0.0366	**-0.0929****	-0.0151	**-0.0241***	**-0.0648****	0.0110	-0.0334	**-0.1006****
p-value	(0.441)	**(0.047)**	**(0.011)**	(0.599)	(0.220)	**(0.050)**	(0.157)	**(0.088)**	**(0.018)**	(0.591)	(0.213)	**(0.028)**
CB	0.0025	0.0028	-0.0131	0.0009	-0.0018	-0.0160	-0.0037	0.0011	**-0.0284***	-0.0012	-0.0029	-0.0223
p-value	(0.750)	(0.792)	(0.467)	(0.916)	(0.877)	(0.425)	(0.503)	(0.885)	**(0.056)**	(0.872)	(0.784)	(0.260)
Related	0.0015	-0.0024	0.0026	0.0060	0.0014	0.0056	-0.0014	-0.0027	0.0060	0.0028	-0.0003	0.0100
p-value	(0.845)	(0.815)	(0.879)	(0.477)	(0.900)	(0.766)	(0.794)	(0.695)	(0.658)	(0.694)	(0.974)	(0.579)
AUK	-0.0129	-0.0076	-0.0043	**-0.0203****	-0.0165	-0.0190	**-0.0165*****	-0.0118	**-0.0349****	**-0.0194****	-0.0161	**-0.0383***
p-value	(0.129)	(0.500)	(0.827)	**(0.027)**	(0.185)	(0.378)	**(0.010)**	(0.162)	**(0.037)**	**(0.016)**	(0.146)	**(0.064)**
Relsize				0.0156	0.0197	0.0253				0.0119	0.0109	0.0096
p-value				(0.109)	(0.157)	(0.324)				(0.165)	(0.289)	(0.665)
Cash				**0.0184***	0.0218	0.0312				**0.0195****	0.0192	0.0263
p-value				**(0.065)**	(0.105)	(0.222)				**(0.028)**	(0.102)	(0.285)
Mix				0.0187	0.0125	-0.0058				0.0137	0.0026	-0.0060
p-value				(0.138)	(0.465)	(0.836)				(0.193)	(0.849)	(0.832)
N	262	262	262	238	238	238	400	400	400	261	261	261
N (Failure3 = 1)	11	11	11	8	8	8	29	29	29	9	9	9
adj. R²	-0.0082	-0.0063	0.0143	0.0111	-0.0045	0.0249	-0.0020	-0.0009	0.0285	0.0109	0.0151	0.0232

Table 9: SAMPLE A - Robustness check on first M&A failure definition and M&A failure size using three-year post-M&A period

N is the number of observations used in the OLS regressions. *Failure1* equals one if the BHAR of the acquirer up to three years following deal completion are negative, and zero otherwise. *Failure1_size* equals the reversal of the BHAR of the acquirer up to three years following deal completion. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. Relsize is the ratio of the target market value of equity to acquirer market value of equity, with market values measured at 51 trading days prior to the M&A announcement. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model1 tests the relation between M&A failure and short-term value creation after controlling for cross-border nature, industry relatedness and whether the acquirer is a UK firm. Model2 additionally controls for relative target size and method of payment. The combined abnormal returns and Relsize are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model1			Model2			Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
Panel A: Combined CAR												
C	**0.0306***	**0.0574****	**0.1250*****	0.0221	**0.0554***	**0.1399****	**0.0261***	**0.0514****	**0.1169****	0.0190	**0.0508***	**0.1326****
p-value	**(0.051)**	**(0.015)**	**(0.008)**	(0.312)	**(0.071)**	**(0.024)**	**(0.096)**	**(0.020)**	**(0.011)**	(0.376)	**(0.074)**	**(0.028)**
Failure1	-0.0086	-0.0115	-0.0157	-0.0072	-0.0099	-0.0116						
p-value	(0.275)	(0.270)	(0.374)	(0.404)	(0.391)	(0.545)						
Failure1_size							-0.0064	-0.0073	-0.0034	-0.0058	-0.0072	-0.0022
p-value							(0.116)	(0.195)	(0.717)	(0.213)	(0.269)	(0.840)
CB	0.0110	0.0130	0.0013	0.0106	0.0109	0.0007	0.0110	0.0132	0.0019	0.0108	0.0112	0.0006
p-value	(0.197)	(0.242)	(0.946)	(0.251)	(0.373)	(0.975)	(0.193)	(0.234)	(0.923)	(0.242)	(0.362)	(0.979)
Related	0.0033	-0.0030	0.0046	0.0063	-0.0002	0.0038	0.0030	-0.0033	0.0049	0.0057	-0.0008	0.0041
p-value	(0.694)	(0.783)	(0.805)	(0.491)	(0.987)	(0.853)	(0.720)	(0.764)	(0.792)	(0.531)	(0.943)	(0.842)
AUK	-0.0092	-0.0029	-0.0015	**-0.0161***	-0.0109	-0.0133	-0.0081	-0.0015	0.0000	-0.0151	-0.0095	-0.0125
p-value	(0.312)	(0.808)	(0.946)	**(0.092)**	(0.409)	(0.573)	(0.373)	(0.899)	(0.999)	(0.115)	(0.466)	(0.596)
Relsize				**0.0213****	**0.0269***	0.0347				**0.0209****	**0.0264***	0.0343
p-value				**(0.045)**	**(0.097)**	(0.255)				**(0.044)**	**(0.099)**	(0.262)
Cash				0.0177	0.0190	0.0232				0.0157	0.0166	0.0242
p-value				(0.116)	(0.230)	(0.431)				(0.178)	(0.304)	(0.421)
Mix				0.0172	0.0060	-0.0253				0.0158	0.0044	-0.0244
p-value				(0.232)	(0.766)	(0.439)				(0.277)	(0.829)	(0.456)
N	233	233	233	214	214	214	233	233	233	214	214	214
N (Failure1 = 1)	122	122	122	110	110	110	122	122	122	110	110	110
adj. R²	-0.0003	-0.0053	-0.0069	0.0158	0.0021	0.0111	0.0080	-0.0009	-0.0102	0.0226	0.0073	0.0092

Table 9 (continued) SAMPLE A - Robustness check on first M&A failure definition and M&A failure size using three-year post-M&A period

N is the number of observations used in the OLS regressions. *Failure1* equals one if the BHAR of the acquirer up to three years following deal completion are negative, and zero otherwise. *Failure1_size* equals the reversal of the BHAR of the acquirer up to three years following deal completion. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. Relsize is the ratio of the target market value of equity to acquirer market value of equity, with market values measured at 51 trading days prior to the M&A announcement. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model1 tests the relation between M&A failure and short-term value creation after controlling for cross-border nature, industry relatedness and whether the acquirer is a UK firm. Model2 additionally controls for relative target size and method of payment. The acquirer abnormal returns and Relsize are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model1			Model2			Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
Panel B: Acquirer CAR												
C	**0.0188****	**0.0384*****	**0.1056*****	0.0058	0.0397	**0.1200****	0.0134	**0.0277****	**0.0805*****	-0.0005	0.0290	**0.1140****
p-value	**(0.036)**	**(0.008)**	**(0.000)**	(0.757)	(0.116)	**(0.024)**	(0.125)	**(0.047)**	**(0.001)**	(0.977)	(0.222)	**(0.022)**
Failure1	**-0.0090***	**-0.0173****	**-0.0244***	-0.0112	**-0.0183***	-0.0094						
p-value	**(0.099)**	**(0.015)**	**(0.088)**	(0.146)	**(0.077)**	(0.624)						
Failure1_size							**-0.0058***	**-0.0088****	-0.0102	-0.0064	-0.0092	-0.0033
p-value							**(0.054)**	**(0.028)**	(0.226)	(0.118)	(0.104)	(0.770)
CB	-0.0032	0.0015	**-0.0273**	0.0040	0.0038	-0.0154	-0.0031	0.0019	**-0.0265***	0.0043	0.0042	-0.0153
p-value	(0.601)	(0.849)	**(0.088)**	(0.640)	(0.746)	(0.476)	(0.617)	(0.808)	**(0.097)**	(0.614)	(0.719)	(0.478)
Related	-0.0033	-0.0085	0.0000	0.0023	-0.0015	0.0114	-0.0037	-0.0088	0.0000	0.0016	-0.0025	0.0111
p-value	(0.559)	(0.240)	(0.999)	(0.779)	(0.882)	(0.572)	(0.519)	(0.224)	(0.998)	(0.847)	(0.809)	(0.581)
AUK	**-0.0140****	-0.0104	**-0.0327***	**-0.0196****	-0.0161	-0.0362	**-0.0130***	-0.0086	**-0.0303***	**-0.0182****	-0.0139	-0.0353
p-value	**(0.046)**	(0.239)	**(0.072)**	**(0.025)**	(0.177)	(0.115)	**(0.065)**	(0.333)	**(0.094)**	**(0.039)**	(0.247)	(0.125)
Relsize				**0.0177***	0.0157	0.0055				**0.0174***	0.0152	0.0053
p-value				**(0.083)**	(0.211)	(0.832)				**(0.087)**	(0.222)	(0.840)
Cash				**0.0196***	0.0154	0.0217				0.0180	0.0135	0.0215
p-value				**(0.067)**	(0.270)	(0.451)				(0.102)	(0.351)	(0.464)
Mix				0.0157	-0.0036	-0.0147				0.0147	-0.0048	-0.0147
p-value				(0.207)	(0.829)	(0.661)				(0.244)	(0.777)	(0.661)
N	345	345	345	229	229	229	345	345	345	229	229	229
N (Failure1 = 1)	182	182	182	120	120	120	182	182	182	120	120	120
adj. R²	-0.0069	0.0115	0.0169	0.0129	0.0117	0.0059	-0.0022	0.0107	0.0136	0.0158	0.0113	0.0052

Table 10: SAMPLE A - Robustness check on second M&A failure definition and M&A failure size using three-year post-M&A period

N is the number of observations used in the OLS regressions. *Failure2* equals one if the operating performance of the combined firm is lower than the estimated combined performance of acquirer and target following the Gugler *et al.* (2003) methodology after a three-year period following the year of M&A completion. *Failure2* equals zero otherwise. *Failure2_size* is the ratio of the difference between estimated and realized EBITDA to total assets of the combined firm. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. Relsize is the ratio of the target market value of equity to acquirer market value of equity, with market values measured at 51 trading days prior to the M&A announcement. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model1 tests the relation between M&A failure and short-term value creation after controlling for cross-border nature, industry relatedness and whether the acquirer is a UK firm. Model2 additionally controls for relative target size and method of payment. The combined abnormal returns and Relsize are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model1			Model2			Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
Panel A: Combined CAR												
C	**0.0414****	**0.0756****	**0.1563****	0.0312	**0.0702***	**0.1555***	**0.0391***	**0.0657****	**0.1372****	0.0308	0.0611	0.1257
p-value	**(0.044)**	**(0.016)**	**(0.020)**	(0.179)	**(0.062)**	**(0.067)**	**(0.057)**	**(0.033)**	**(0.038)**	(0.196)	(0.117)	(0.154)
Failure2	0.0005	-0.0190	-0.0080	-0.0052	-0.0250	-0.0174						
p-value	(0.970)	(0.253)	(0.792)	(0.717)	(0.171)	(0.584)						
Failure2_size							-0.0141	**-0.0700****	**-0.1245****	-0.0070	-0.0609	**-0.1302***
p-value							(0.486)	**(0.040)**	**(0.033)**	(0.747)	(0.169)	**(0.056)**
CB	0.0000	-0.0092	-0.0311	0.0052	-0.0052	-0.0263	-0.0007	-0.0116	-0.0366	0.0053	-0.0046	-0.0261
p-value	(0.999)	(0.556)	(0.327)	(0.720)	(0.787)	(0.503)	(0.960)	(0.459)	(0.240)	(0.711)	(0.812)	(0.501)
Related	0.0013	-0.0061	-0.0235	0.0079	0.0012	-0.0087	0.0008	-0.0121	-0.0303	0.0069	-0.0045	-0.0155
p-value	(0.915)	(0.705)	(0.471)	(0.580)	(0.954)	(0.828)	(0.953)	(0.454)	(0.330)	(0.630)	(0.822)	(0.678)
AUK	-0.0104	-0.0048	0.0173	-0.0224	-0.0148	0.0039	-0.0113	-0.0095	0.0094	-0.0226	-0.0169	-0.0007
p-value	(0.445)	(0.788)	(0.620)	(0.140)	(0.474)	(0.923)	(0.408)	(0.578)	(0.782)	(0.135)	(0.400)	(0.985)
Relsize				**0.0450****	0.0472	0.0467				**0.0438****	0.0425	0.0463
p-value				**(0.034)**	(0.167)	(0.509)				**(0.031)**	(0.222)	(0.516)
Cash				0.0076	0.0104	0.0062				0.0068	0.0076	0.0072
p-value				(0.620)	(0.629)	(0.897)				(0.652)	(0.720)	(0.877)
Mix				0.0011	-0.0203	-0.0378				0.0009	-0.0205	-0.0360
p-value				(0.956)	(0.446)	(0.442)				(0.963)	(0.423)	(0.446)
N	124	124	124	111	111	111	124	124	124	111	111	111
N (Failure2 = 1)	47	47	47	43	43	43	47	47	47	43	43	43
adj. R²	-0.0272	-0.0005	0.0018	0.0585	0.0458	-0.0141	-0.0220	0.0568	0.0635	0.0579	0.0704	0.0421

Table 10 (continued) SAMPLE A - Robustness check on second M&A failure definition and second M&A failure size proxy using three-year post-M&A period

N is the number of observations used in the OLS regressions. *Failure2* equals one if the operating performance of the combined firm is lower than the estimated combined performance of acquirer and target following the Gugler *et al.* (2003) methodology after a three-year period following the year of M&A completion. *Failure2* equals zero otherwise. *Failure2_size* is the ratio of the difference between estimated and realized EBITDA to total assets of the combined firm. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. Relsize is the ratio of the target market value of equity to acquirer market value of equity, with market values measured at 51 trading days prior to the M&A announcement. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model1 tests the relation between M&A failure and short-term value creation after controlling for cross-border nature, industry relatedness and whether the acquirer is a UK firm. Model2 additionally controls for relative target size and method of payment. The acquirer abnormal returns and Relsize are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model1			Model2			Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
Panel B: Acquirer CAR												
C	**0.0221***	**0.0401***	**0.1180***	0.0085	**0.0502***	**0.1509**	**0.0212***	**0.0377***	**0.1145***	0.0099	0.0447	**0.1423**
p-value	**(0.057)**	**(0.065)**	**(0.004)**	(0.672)	**(0.090)**	**(0.013)**	**(0.066)**	**(0.075)**	**(0.004)**	(0.626)	(0.141)	**(0.022)**
Failure2	-0.0052	-0.0145	-0.0234	-0.0037	-0.0186	-0.0107						
p-value	(0.563)	(0.248)	(0.337)	(0.763)	(0.261)	(0.718)						
Failure2_size							-0.0091	**-0.0449***	**-0.0909**	0.0041	-0.0350	-0.0432
p-value							(0.516)	**(0.054)**	**(0.024)**	(0.837)	(0.366)	(0.472)
CB	-0.0109	-0.0118	-0.0339	-0.0036	-0.0166	-0.0470	-0.0112	-0.0141	**-0.0390***	-0.0033	-0.0161	-0.0472
p-value	(0.241)	(0.329)	(0.154)	(0.791)	(0.349)	(0.164)	(0.234)	(0.250)	**(0.097)**	(0.808)	(0.369)	(0.159)
Related	0.0052	0.0001	-0.0066	0.0152	0.0066	0.0128	0.0040	-0.0048	-0.0162	0.0148	0.0039	0.0111
p-value	(0.558)	(0.992)	(0.775)	(0.220)	(0.680)	(0.709)	(0.648)	(0.683)	(0.465)	(0.230)	(0.804)	(0.744)
AUK	**-0.0211***	-0.0053	-0.0101	**-0.0254***	-0.0146	-0.0155	**-0.0217****	-0.0082	-0.0156	**-0.0252***	-0.0154	-0.0167
p-value	**(0.051)**	(0.710)	(0.727)	**(0.058)**	(0.413)	(0.652)	**(0.046)**	(0.566)	(0.589)	**(0.059)**	(0.383)	(0.630)
Relsize				**0.0314***	0.0357	0.0024				**0.0304***	0.0318	0.0007
p-value				**(0.091)**	(0.105)	(0.953)				**(0.096)**	(0.152)	(0.988)
Cash				**0.0221***	0.0194	0.0172				**0.0215***	0.0161	0.0153
p-value				**(0.087)**	(0.219)	(0.665)				**(0.093)**	(0.313)	(0.700)
Mix				0.0089	-0.0190	-0.0400				0.0089	-0.0197	-0.0407
p-value				(0.595)	(0.379)	(0.365)				(0.598)	(0.358)	(0.357)
N	171	171	171	121	121	121	171	171	171	121	121	121
N (Failure2 = 1)	65	65	65	47	47	47	65	65	65	47	47	47
adj. R²	-0.0019	-0.0007	0.0170	0.0773	0.0853	0.0241	-0.0012	0.0296	0.0510	0.0767	0.0901	0.0303

Table 11: SAMPLE B - Multivariate OLS of ACQUIRER CAR on first M&A failure definition and first M&A failure size proxy

N is the number of observations used in the OLS regressions. *Failure1* equals one if the BHAR of the acquirer up to two years following deal completion are negative, and zero otherwise. *Failure1_size* equals the reversal of the BHAR of the acquirer up to two years following deal completion. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model0 includes the control variables only. Model1 includes CB, Related and AUK, while Model2 additionally controls for the method of payment. The acquirer abnormal returns are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model0			Model1			Model2			Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
C	-0.0043	0.0028	0.0514	0.0000	-0.0002	-0.0065	0.0114	0.0389	0.0776	-0.0064	-0.0049	-0.0054	0.0027	0.0280	0.0824
p-value	(0.865)	(0.934)	(0.472)	(0.999)	(0.988)	(0.838)	(0.706)	(0.307)	(0.386)	(0.516)	(0.727)	(0.857)	(0.922)	(0.444)	(0.329)
Failure1				**-0.0092***	-0.0069	0.0055	**-0.0186***	-0.0221	0.0078						
p-value				**(0.084)**	(0.373)	(0.740)	**(0.072)**	(0.129)	(0.776)						
Failure1_size										**-0.0125***	-0.0088	-0.0046	**-0.0158**	-0.0125	-0.0049
p-value										**(0.001)**	(0.136)	(0.711)	**(0.019)**	(0.196)	(0.794)
CB	0.0109	0.0051	0.0137	0.0096	0.0096	0.0189	0.0117	-0.0008	0.0117	**0.0103***	0.0101	0.0193	0.0125	0.0004	0.0109
p-value	(0.251)	(0.710)	(0.574)	(0.115)	(0.249)	(0.289)	(0.291)	(0.959)	(0.687)	**(0.086)**	(0.222)	(0.277)	(0.254)	(0.982)	(0.703)
Related	**0.0154***	0.0188	0.0342	0.0045	0.0098	0.0113	0.0068	0.0093	0.0272	0.0044	0.0098	0.0112	0.0071	0.0093	0.0277
p-value	**(0.093)**	(0.150)	(0.147)	(0.450)	(0.230)	(0.489)	(0.523)	(0.536)	(0.318)	(0.455)	(0.232)	(0.493)	(0.499)	(0.536)	(0.309)
AUK	**0.0173***	**0.0261***	0.0302	**0.0144****	**0.0221****	0.0193	**0.0189***	0.0224	0.0283	**0.0155****	**0.0229****	0.0197	**0.0211***	0.0248	0.0278
p-value	**(0.068)**	**(0.061)**	(0.204)	**(0.037)**	**(0.016)**	(0.320)	**(0.091)**	(0.157)	(0.319)	**(0.026)**	**(0.014)**	(0.311)	**(0.062)**	(0.127)	(0.323)
Cash	-0.0099	-0.0291	**-0.0937***				-0.0256	**-0.0492***	**-0.1142***				-0.0298	**-0.0504***	**-0.1193***
p-value	(0.566)	(0.232)	**(0.058)**				(0.207)	**(0.081)**	**(0.058)**				(0.137)	**(0.079)**	**(0.052)**
Mix	0.0009	-0.0290	**-0.1038****				-0.0128	**-0.0442***	**-0.1206****				-0.0151	**-0.0454***	**-0.1224****
p-value	(0.958)	(0.226)	**(0.046)**				(0.504)	**(0.097)**	**(0.047)**				(0.424)	**(0.094)**	**(0.045)**
N	167	167	167	307	307	307	136	136	136	307	307	307	136	136	136
N (Failure1 = 1)				156	156	156	63	63	63	156	156	156	63	63	63
adj. R²	0.0357	0.0170	0.0685	0.0277	0.0088	0.0273	0.0429	0.0064	0.0537	0.0553	0.0155	0.0274	0.0624	0.0001	0.0537

Table 12: SAMPLE B - Multivariate OLS of ACQUIRER CAR on second M&A failure definition and second M&A failure size proxy

N is the number of observations used in the OLS regressions. *Failure2* equals one if the operating performance of the combined firm is lower than the estimated combined performance of acquirer and target following the Gugler *et al.* (2003) methodology after a two-year period following the year of M&A completion. *Failure2* equals zero otherwise. *Failure2_size* is the ratio of the difference between estimated and realized EBITDA to total assets of the combined firm. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model1 includes CB, Related and AUK, while Model2 additionally controls for the method of payment. The acquirer abnormal returns are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model1			Model2			Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
C	0.0226	0.0125	0.0512	0.0655	0.1137	**0.3199***	0.0331	0.0167	0.0806	**0.0808***	**0.1210****	**0.3543*****
p-value	(0.245)	(0.642)	(0.448)	(0.453)	(0.174)	**(0.083)**	(0.122)	(0.591)	(0.287)	**(0.065)**	**(0.028)**	**(0.002)**
Failure2	0.0076	0.0254	0.0215	0.0258	0.0675	0.0932						
p-value	(0.455)	(0.123)	(0.621)	(0.348)	(0.107)	(0.170)						
Failure2_size							0.0243	0.0136	0.0681	**0.0560****	0.0454	0.1380
p-value							(0.181)	(0.617)	(0.296)	**(0.012)**	(0.337)	(0.214)
CB	0.0012	-0.0067	-0.0492	-0.0149	-0.0674	-0.0728	0.0001	-0.0111	-0.0521	-0.0173	-0.0644	-0.0755
p-value	(0.929)	(0.754)	(0.316)	(0.662)	(0.196)	(0.473)	(0.993)	(0.604)	(0.284)	(0.368)	(0.121)	(0.269)
Related	0.0046	-0.0280	-0.0226	0.0147	-0.0143	0.00822	0.0054	-0.0218	-0.0201	0.0139	-0.0010	0.0151
p-value	(0.618)	(0.137)	(0.647)	(0.444)	(0.709)	(0.900)	(0.576)	(0.247)	(0.654)	(0.355)	(0.977)	(0.736)
AUK	0.0111	0.0359	-0.0424	0.0076	-0.0165	-0.0424	0.0096	0.0283	-0.0465	0.0063	-0.0075	-0.0392
p-value	(0.454)	(0.148)	(0.483)	(0.791)	(0.746)	(0.717)	(0.483)	(0.251)	(0.425)	(0.715)	(0.868)	(0.624)
Cash				-0.0488	**-0.1061****	**-0.2613****				-0.0376	**-0.0884*****	**-0.2282*****
p-value				(0.394)	**(0.030)**	**(0.023)**				(0.132)	**(0.010)**	**(0.001)**
Mix				-0.0423	**-0.1176***	**-0.3450****				-0.0334	**-0.1134****	**-0.3250*****
p-value				(0.372)	**(0.094)**	**(0.031)**				(0.158)	**(0.041)**	**(0.002)**
N	69	69	69	34	34	34	69	69	69	34	34	34
N (Failure2 = 1)	22	22	22	8	8	8	22	22	22	8	8	8
adj. R²	0.0363	0.0362	-0.0981	0.2346	0.1365	0.4083	0.0607	0.0050	-0.0826	0.2988	-0.0355	0.3873

Table 13: SAMPLE B - Multivariate OLS regression of ACQUIRER CAR on third M&A failure definition

N is the number of observations used in the OLS regressions. *Failure3* equals one if the acquirer divested at least a 50% stake in the target after deal completion, and zero otherwise. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model1 includes CB, Related and AUK, while Model2 additionally controls for the method of payment. The acquirer abnormal returns and Relsize are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
C	-0.0027	-0.0120	-0.0187	-0.0037	0.0000	0.0499
p-value	(0.759)	(0.337)	(0.517)	(0.884)	(0.999)	(0.489)
Failure3	0.0092	**0.0540****	0.0652	-0.0091	0.0445	0.0243
p-value	(0.546)	**(0.017)**	(0.191)	(0.497)	(0.315)	(0.824)
CB	0.0075	0.0081	0.0154	0.0106	0.0065	0.0145
p-value	(0.170)	(0.281)	(0.363)	(0.270)	(0.630)	(0.565)
Related	0.0079	**0.0139***	0.0173	0.0150	0.0204	0.0351
p-value	(0.139)	**(0.066)**	(0.270)	(0.102)	(0.127)	(0.141)
AUK	**0.0132****	**0.0212*****	0.0244	**0.0171***	**0.0271****	0.0307
p-value	**(0.024)**	**(0.007)**	(0.172)	**(0.072)**	**(0.050)**	(0.200)
Cash				-0.0096	-0.0305	**-0.0944***
p-value				(0.577)	(0.211)	**(0.056)**
Mix				0.0013	-0.0307	**-0.1047****
p-value				(0.943)	(0.205)	**(0.044)**
N	370	370	370	167	167	167
N (Failure3 = 1)	12	12	12	5	5	5
adj. R²	0.0176	0.0353	0.0177	0.0303	0.0223	0.0632

Table 14: SAMPLE B - Robustness check on the regression models of ACQUIRER CAR including relative target size (total assets)

N is the number of observations used in the OLS regressions. *Failure1* equals one if the BHAR of the acquirer up to two years following deal completion are negative, and zero otherwise. *Failure1_size* equals the reversal of the BHAR of the acquirer up to two years following deal completion. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. Relsize is the ratio of the target total assets to acquirer total assets, with total assets measured one year prior to deal completion. Model0 includes the control variables and relative target size. The acquirer abnormal returns and Relsize are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model0			Failure1			Failure1_size		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
Panel A: Failure1 and Failure1_size									
C	0.0088	-0.0121	0.0289	0.0022	-0.0191	-0.0041	-0.0158	-0.0275	-0.0195
p-value	(0.615)	(0.586)	(0.618)	(0.918)	(0.467)	(0.952)	(0.539)	(0.393)	(0.796)
Failure1				**-0.0265***	-0.0171	-0.0470			
p-value				**(0.051)**	(0.450)	(0.214)			
Failure1_size							**-0.0159***	-0.0073	-0.0133
p-value							**(0.058)**	(0.582)	(0.616)
CB	0.0000	-0.0213	-0.0516	0.0057	-0.0195	-0.0378	0.0073	-0.0197	-0.0411
p-value	(0.997)	(0.245)	(0.167)	(0.631)	(0.388)	(0.365)	(0.575)	(0.391)	(0.360)
Related	0.0059	-0.0089	-0.0034	0.0063	-0.0050	0.0082	0.0057	-0.0058	0.0049
p-value	(0.516)	(0.557)	(0.914)	(0.543)	(0.771)	(0.791)	(0.588)	(0.730)	(0.871)
AUK	0.0033	0.0027	-0.0519	0.0055	0.0072	-0.0379	0.0079	0.0078	-0.0381
p-value	(0.791)	(0.902)	(0.210)	(0.656)	(0.748)	(0.363)	(0.528)	(0.733)	(0.391)
Relsize	0.0396	**0.1270***	0.1876	0.0577	0.1365	0.2485	0.0695	0.1422	0.2594
p-value	(0.482)	**(0.099)**	(0.302)	(0.285)	(0.107)	(0.194)	(0.238)	(0.101)	(0.177)
N	84	84	84	73	73	73	73	73	73
N (Failure1 = 1)				33	33	33	33	33	33
adj. R²	-0.0432	0.0488	-0.0414	0.0249	0.0481	0.0692	0.0094	0.0388	0.0389

Table 14 (continued) SAMPLE B - Robustness check on the regression models of ACQUIRER CAR including relative target size (total assets)

N is the number of observations used in the OLS regressions. *Failure2* equals one if the operating performance of the combined firm is lower than the estimated combined performance of acquirer and target following the Gugler *et al.* (2003) methodology after a two-year period following the year of M&A completion. *Failure2* equals zero otherwise. *Failure2_size* is the ratio of the difference between estimated and realized EBITDA to total assets of the combined firm. *Failure3* equals one if the acquirer divested at least a 50% stake in the target after deal completion, and zero otherwise. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. Relsize is the ratio of the target total assets to acquirer total assets, with total assets measured one year prior to deal completion. The acquirer abnormal returns and Relsize are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model0			Failure2			Failure2_size			Failure3		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
Panel B: Failure2, Failure2_size and Failure3												
C	0.0088	-0.0121	0.0289	0.0162	-0.0101	0.0085	0.0277	0.0008	0.0478	0.0106	-0.0172	0.0257
p-value	(0.615)	(0.586)	(0.618)	(0.322)	(0.628)	(0.900)	(0.128)	(0.974)	(0.501)	(0.561)	(0.462)	(0.669)
Failure2				0.0088	**0.0296***	0.0295						
p-value				(0.377)	**(0.066)**	(0.486)						
Failure2_size							0.0301	0.0306	0.1032			
p-value							(0.213)	(0.426)	(0.192)			
Failure3										-0.0164	0.0465	0.0298
p-value										(0.360)	(0.516)	(0.827)
CB	0.0000	-0.0213	-0.0516	0.0023	-0.0027	-0.0417	0.0013	-0.0075	-0.0448	-0.0018	-0.0163	-0.0484
p-value	(0.997)	(0.245)	(0.167)	(0.856)	(0.894)	(0.384)	(0.915)	(0.717)	(0.344)	(0.878)	(0.358)	(0.201)
Related	0.0059	-0.0089	-0.0034	0.0046	-0.0279	-0.0224	0.0056	-0.0214	-0.0192	0.0056	-0.0081	-0.0029
p-value	(0.516)	(0.557)	(0.914)	(0.617)	(0.115)	(0.634)	(0.573)	(0.247)	(0.657)	(0.540)	(0.602)	(0.928)
AUK	0.0033	0.0027	-0.0519	0.0118	**0.0386***	-0.0373	0.0103	0.0304	-0.0422	0.0028	0.0043	-0.0509
p-value	(0.791)	(0.902)	(0.210)	(0.404)	**(0.100)**	(0.521)	(0.434)	(0.200)	(0.453)	(0.826)	(0.850)	(0.225)
Relsize	0.0396	**0.1270***	0.1876	0.0437	**0.1546***	0.2923	0.0546	**0.1594***	0.3297	0.0388	0.1293	0.1890
p-value	(0.482)	**(0.099)**	(0.302)	(0.496)	**(0.054)**	(0.165)	(0.395)	**(0.062)**	(0.108)	(0.488)	(0.103)	(0.303)
N	84	84	84	69	69	69	69	69	69	84	84	84
N (Failure2 = 1)				22	22	22	22	22	22			
N (Failure3 = 1)										3	3	3
adj. R²	-0.0432	0.0488	-0.0414	0.0436	0.1375	-0.0261	0.0812	0.1083	0.0102	-0.0518	0.0560	-0.0545

Table 15: SAMPLE B - Robustness check on first M&A failure definition and M&A failure size using three-year post-M&A period for ACQUIRER CAR

N is the number of observations used in the OLS regressions. *Failure1* equals one if the BHAR of the acquirer up to three years following deal completion are negative, and zero otherwise. *Failure1_size* equals the reversal of the BHAR of the acquirer up to three years following deal completion. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model1 includes CB, Related and AUK, while Model2 additionally controls for the method of payment. The acquirer abnormal returns are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model1			Model2			Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
C	0.0015	0.0046	0.0035	0.0140	0.0448	0.0824	-0.0060	-0.0049	-0.0062	0.0018	0.0274	0.0823
p-value	(0.889)	(0.747)	(0.909)	(0.639)	(0.217)	(0.349)	(0.542)	(0.724)	(0.835)	(0.947)	(0.457)	(0.324)
Failure1	**-0.0099***	**-0.0148***	-0.0157	**-0.0187***	**-0.0260***	-0.0007						
p-value	**(0.077)**	**(0.074)**	(0.346)	**(0.069)**	**(0.078)**	(0.979)						
Failure1_size							**-0.0087*****	-0.0073	-0.0066	**-0.0112****	-0.0088	-0.0075
p-value							**(0.006)**	(0.144)	(0.516)	**(0.040)**	(0.275)	(0.609)
CB	0.0096	0.0098	0.0193	0.0131	0.0009	0.0111	**0.0099***	0.0099	0.0194	0.0128	0.0006	0.0110
p-value	(0.113)	(0.236)	(0.275)	(0.242)	(0.955)	(0.701)	**(0.098)**	(0.230)	(0.273)	(0.251)	(0.971)	(0.704)
Related	0.0036	0.0085	0.0098	0.0057	0.0079	0.0274	0.0040	0.0094	0.0109	0.0066	0.0090	0.0277
p-value	(0.552)	(0.308)	(0.556)	(0.592)	(0.596)	(0.315)	(0.500)	(0.252)	(0.508)	(0.532)	(0.555)	(0.309)
AUK	**0.0146****	**0.0224****	0.0196	**0.0208***	0.0248	0.0276	**0.0157****	**0.0232****	0.0202	**0.0213***	0.0250	0.0281
p-value	**(0.035)**	**(0.015)**	(0.314)	**(0.066)**	(0.122)	(0.327)	**(0.024)**	**(0.013)**	(0.296)	**(0.061)**	(0.127)	(0.319)
Cash				-0.0242	**-0.0484***	**-0.1165****				-0.0267	**-0.0479***	**-0.1206****
p-value				(0.224)	**(0.084)**	**(0.049)**				(0.177)	**(0.090)**	**(0.043)**
Mix				-0.0133	**-0.0453***	**-0.1213****				-0.0160	**-0.0461***	**-0.1243****
p-value				(0.490)	**(0.091)**	**(0.045)**				(0.410)	**(0.091)**	**(0.042)**
N	307	307	307	136	136	136	307	307	307	136	136	136
N (Failure1 = 1)	154	154	154	66	66	66	154	154	154	66	66	66
adj. R²	0.0290	0.0187	0.0300	0.0441	0.0161	0.0530	0.0455	0.0159	0.0286	0.0540	-0.0029	0.0555

Table 16: SAMPLE B - Robustness check on second M&A failure definition and M&A failure size using three-year post-M&A period for ACQUIRER CAR

N is the number of observations used in the OLS regressions. *Failure2* equals one if the operating performance of the combined firm is lower than the estimated combined performance of acquirer and target following the Gugler *et al.* (2003) methodology after a three-year period following the year of M&A completion. *Failure2* equals zero otherwise. *Failure2_size* is the ratio of the difference between estimated and realized EBITDA to total assets of the combined firm. The CB-dummy equals one if acquirer and target are not registered in the same country, and zero otherwise. The Related-variable equals one if acquirer and target share the same four-digit primary US SIC code. AUK is a dummy variable equal to one if the acquirer is a UK-firm and zero otherwise. The Cash-dummy equals one if the M&A was fully cash-financed, and zero otherwise. Mix is equal to one if the payment was made with a combination of cash and shares, and zero otherwise. Model1 includes CB, Related and AUK, while Model2 additionally controls for the method of payment. The acquirer abnormal returns are winsorized at 5%-95%. White's consistent estimates of the standard errors of the coefficients are used to compute p-values. ***, ** and * indicate significance levels of 1%, 5% and 10%, respectively. Year and industry classification dummies as in Moeller *et al.* (2005) are included but not reported in all models.

	Model1			Model2			Model1			Model2		
Event window	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)	(-1,1)	(-5,1)	(-35,1)
C	0.0297	0.0555	0.1235	0.0574	**0.1585***	**0.4194***	0.0305	0.0532	0.1168	0.0652	0.1649	0.4301
p-value	(0.418)	(0.301)	(0.313)	(0.429)	**(0.051)**	**(0.009)**	(0.408)	(0.344)	(0.365)	(0.740)	(0.421)	(0.338)
Failure2	-0.0036	0.0418	0.0634	0.0129	0.0801	0.1116						
p-value	(0.777)	(0.143)	(0.330)	(0.638)	(0.111)	(0.105)						
Failure2_size							0.0004	0.0397	0.0396	-0.0109	0.0476	0.0611
p-value							(0.982)	(0.276)	(0.699)	(0.958)	(0.792)	(0.896)
CB	0.0053	-0.0263	-0.0774	-0.0051	-0.0737	-0.1097	0.0049	-0.0248	-0.0736	-0.0066	-0.0879	-0.1293
p-value	(0.801)	(0.472)	(0.288)	(0.842)	(0.162)	(0.180)	(0.820)	(0.525)	(0.350)	(0.928)	(0.381)	(0.515)
Related	0.0053	**-0.0527***	-0.0742	0.0099	-0.0486	-0.0743	0.0046	-0.0387	-0.0557	0.0194	0.0111	0.0088
p-value	(0.731)	**(0.051)**	(0.237)	(0.774)	(0.436)	(0.445)	(0.767)	(0.181)	(0.422)	(0.766)	(0.903)	(0.960)
AUK	0.0120	0.0022	-0.0796	0.0117	-0.0375	-0.1231	0.0125	0.0075	-0.0771	0.0133	-0.0278	-0.1096
p-value	(0.625)	(0.959)	(0.426)	(0.677)	(0.486)	(0.208)	(0.613)	(0.871)	(0.466)	(0.896)	(0.827)	(0.643)
Cash				-0.0370	**-0.0856***	**-0.2153****				-0.0477	-0.0942	-0.2298
p-value				(0.375)	**(0.051)**	**(0.025)**				(0.773)	(0.570)	(0.517)
Mix				-0.0311	-0.1006	-0.2189				-0.0483	-0.1513	-0.2922
p-value				(0.513)	(0.275)	(0.181)				(0.809)	(0.505)	(0.497)
N	45	45	45	25	25	25	45	45	45	25	25	25
N (Failure2 = 1)	18	18	18	6	6	6	18	18	18	6	6	6
adj. R²	-0.0670	0.0647	0.0398	-0.4275	0.0554	0.3190	-0.0692	0.0639	0.0097	-0.4269	-0.0495	0.2552