Bidder Gains and Losses of Firms Involved in Many Acquisitions[Δ]

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ABSTRACT

We examine shareholders wealth effects (both in short- and long-run) of UK frequent bidders acquiring public, private, and/or subsidiary targets with alternative methods of payment between 1985 and 2004. We find that, in the short-run, bidders lose when acquiring public targets and gain when purchasing private and subsidiary targets. This result is robust after controlling for bidder's book-to-market ratio (value/glamour), core-industry (diversified/non-diversified), and target origin (domestic/foreign). Our long-run evidence, however, reveals that acquirers experience significant wealth loss regardless of the target type acquired indicating that markets may overreact at the acquisition announcement. As a consequence we argue, in contrary to Fuller et al. (2002), that a fruitful conclusion on the wealth effect of bidders acquiring private and subsidiary targets can only be drawn under both short and long run investigation.

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1. Introduction

The examination of shareholders wealth effects (value creation or destruction) of Mergers and Acquisitions (M&A) is one of the most coveted research areas in finance. To date, a large amount of research has focused on examining the short-window stock returns earned by targets and bidders around merger announcements. The stylized fact emerging from this strand of studies is undivided in that target firm shareholders earn a significant and positive abnormal return in a few days surrounding the takeover announcements, a finding that is rather unsurprising given the hefty premiums paid to the targets. Acquiring firms, on the other hand, are found to break even while the combined entity (target and acquirer) earns a positive abnormal return around the announcement date[2]. Given these findings, a simple but interesting question arises: Do these observed abnormal returns solely reflect the expectation of future cash flows resulting from the takeover events? Hietala, Kaplan, and Robinson (2000) argue that acquisition announcement reveals not only the value of the acquisition itself but also the stand-alone value of the bidders, the potential synergies of the combination, and possibly the bidder overpayment. Hence, it is often impossible to isolate the above effects from the observed abnormal returns.

Fuller, Netter, and Stegemoller (2002) apply a sophisticated research design to control for (much of) the information about bidder characteristics contained in stock returns at the acquisition announcement.[3] They investigate the returns to US frequent bidders making five or more bids within a three-year time horizon. As they argue, the sample of frequent bidders

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[2] For evidence on acquirers' short-run stock returns see, for example, Dodd and Ruback (1977), Asquith, Bruner and Mullins (1983), Dennis and McConnell (1986), Bradley, Desai, and Kim (1988), Franks and Harris (1989). For evidence of combined firms see, for example, Bradley, Desai, and Kim (1988), Mulherin and Boone (2000), Andrade, Mitchell, and Stafford (2001).

allows to hold bidder characteristics constant when examining the pattern of announcement returns[4]. In general, the authors conclude that bidders experience significant wealth loss when buying public targets, while earn substantial gains when private and subsidiary targets are purchased. This is, however, a premature conclusion as short-run event study conclusions rely strictly on the assumption of market efficiency. Nevertheless, it is possible that stock prices temporarily deviate from their fundamental values due to investors systematic over or under-reaction to acquisition announcements. In such case, serious doubts arise towards short-run window's ability to distinguish real economic gains from market inefficiency. Accordingly, Healy, Palepu, and Ruback (1992) posit that: "From a stock price perspective, the anticipation of real economic gains is observationally equivalent to market mispricing". This view indicates that, indeed, short-run systematic under- or over-reaction to an event has gradually become accepted in the literature. Fama himself, the father of the efficient market hypothesis, has recently conceded that stock prices could become "somewhat irrational".[5] In a nutshell, the voluminous literature related to behavioural finance emphasizes that results generated by short-run event studies need to be interpreted with further skepticism.

We thus believe that Fuller et al.'s (2002) conclusion needs to be braced with certain caution. In this case, we argue that a complementary long-run analysis in this context is considered essential in order to reach a relatively thorough investigation of shareholders' wealth effects. If the long-run results mirror the short-run findings, we can then be more confident to accept their short-run conclusions. However, if the short-run evidence is not supported by the long-

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[3] Fuller et al. (2002) is the first major attempt in examining takeover announcement returns of multiple bidders involved in acquisitions of public, private, and subsidiary targets with alternative methods of payment between 1990 and 2000.

[4] Fuller et al. (2002, p. 1792) argue "Since we control for acquirer characteristics in that the same bidder will often choose to acquire targets with varying ownership status, and with different payment methods, we can examine the variation in acquirer returns as a function of these bid characteristics".

[5] "As two economists debate markets, the tide shifts. Belief in efficient valuation yields ground to role of irrational investors Mr. Thaler takes on Mr. Fama". The Wall Street Journal, October 18, 2004.

run results, we can then cast doubt on whether Fuller et al.'s (2002) suggestion is economically sound and intuitive or merely a potential product of short-run market inefficiency. In addition, of course, such findings have not been tested in other counties apart from the US.

We therefore conduct, in this paper, a UK study by examining the stock returns (both in short- and long-run) of frequent bidders that successfully acquired three or more public, private, or subsidiary targets using alternative methods of payment within a three-year period between 1985 and 2004. Our comprehensive sample constitutes of 4173 UK takeovers taking place over a 20-year period. A point that is worth mentioning is that a significant proportion of UK firms appear to engage in multiple acquisitions over this period (more than 40% of the entire population) while, most importantly, private targets and subsidiaries are major components of the UK takeover market (approximately 90%), a fact that very few studies have taken into account.

In general, our results demonstrate that positive abnormal returns are present only in the short-run (i.e., the takeover announcements). Bidders gain when buying private or subsidiary targets and lose when purchasing public targets. This finding is fully consistent with Fuller et al. (2002). In addition, we add further evidence to the short-run study by taking into account bidder's book-to-market ratio (value glamour), core-industry (diversified/non-diversified), and target origin (foreign/domestic). On the other hand, our long-run results show that bidders experience significant losses regardless of the type of target acquired. This finding implies that the stock market may overreact in the short-run and its prices are gradually corrected in the long run. Hence, our evidence raises a big question mark towards Fuller et

al.'s (2002) conclusion as the short-run economic gains (i.e., the reflection of the acquisition synergies) of buying private and subsidiary targets cannot be materialized in the long run.

The remainder of this paper is organized as follows: Section 2 describes the data and the methodology. Sections 3 and 4 report and discuss the empirical findings. Section 5 concludes our analysis.

2. Data and Methodology

2.1. Data

We examine a sample of successful takeovers by U.K. public companies that acquired both domestic and foreign targets, announced between January 1, 1985 and May 6, 2004. The sample acquisitions are drawn from the Securities Data Corporation's (SDC) Mergers and Acquisitions Database while the period selected is driven by the total availability of the database and the definition of multiple bidder we have set (acquiring 3 targets within a 3-year period).[6] The following criteria are used in selecting our final sample:

1. Acquirers are U.K. firms publicly traded on the London Stock Exchange (LSE) and have five days of return data around the takeover announcement and one to three year return data listed on the DataStream Database.

2. The acquirer completes three or more bids in any three-year window during the sample period.

3. The bidder acquires at least 50% of the target's shares as a result of the takeover.

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[6] SDC is a commercial database that includes information on U.K. Takeover Bids since 1980. However, the first multiple bidder appears to do the first bid in 1985.

4.   The target is a public, private, or subsidiary firm.[7]

5.   The deal value is one million dollars or more.[8]

6.   We omit financial and utility firms (following Fama and French 1992) for both bidders and targets.

We also exclude clustered acquisitions where the bidder acquires two or more firms within five days in order to isolate the overlapping effect among the bids. Our final sample consists of 618 unique acquirers proceeding to 4173 bids. The full sample is then divided into three groups based on the method of payment for the acquisition, i.e., pure cash, pure stock, and combined. The combined payment sub-sample includes all acquisitions in which the payment method is neither pure cash nor pure stock. As we use Dimson, Nagel, and Quigley (2003) UK 3-factors to account for UK book-to-market peculiarities, we include in our long run analysis bids carried out between 1985-1998 for 3-year analysis (2607 firms), bids up to 1999 for 2-year analysis (2995 firms) and takeovers from 1985-2000 (3383 firms) for 1-year analysis respectively.

Table 1 presents the summary statistics for acquirers making multiple acquisitions and their targets. Panels A, B, C, and D report the annual mean and median acquirer and target size for all bids, only public bids, only private bids, and only subsidiary bids, respectively. The mean and median size for each acquirer and each target is the firm size at the year the deal was announced. The acquirer's and public target's market capitalization equals the price per share one-month prior to the bid announcement times the number of common shares outstanding For private and subsidiary targets, the firm size is measured as the deal value of the bid. The

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[7] We examine subsidiary targets, as they are one of the three main categories of the market for corporate control. All subsidiary targets are unlisted companies after checking the Target Public Mid Code from the SDC database.

final row of each panel presents the mean and median size for each unique acquirer and target (i.e., counted only once for each firm). Accordingly, for the entire sample in Panel A, the mean (median) size of the acquirer is 488 million pounds (77 million pounds) for 618 unique acquirers, while for 4173 unique targets the mean (median) size is 37 million pounds (6 million pounds). Table 1 also presents a general upward trend in both merger activity and size of acquisitions for public, private, and subsidiary targets, dropping slightly by 2000.[9]

Panels B, C, and D present the distribution of mean and median size of firms based on target ownership status, i.e., Public (Panel B), Private (Panel C), and Subsidiary (Panel D). Panel B illustrates that the mean (median) size is 159 million pounds (42 million pounds) for 195 unique public targets. Panel C shows that the private targets mean (median) size is much smaller than that of public targets, 15.8 million pounds (4.75 million pounds) for 2459 unique private targets. Panel D reports that the mean (median) size of 1519 unique subsidiary targets is also smaller (56 million pounds (8.7 million pounds)) than that of public targets. In sum, Table 1 shows that the size of public acquisitions is significantly greater than private and subsidiary ones.

2.2. Methodology

We calculate Cumulative Average Residuals (CARs) for the five-day period [-2, +2][10] around the announcement date supplied by SDC. More specifically, we estimate the abnormal returns by using a modified market-adjusted model:

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[8] We employ a one million dollars cut-off point to avoid results being generated by very small deals. Similarly, studies like Fuller, Netter, and Stegemoller (2002), Moeller, Schlingemann, and Stulz (2004) in the US use a cut-off point of one million dollars.

[9] Despite the decrease in number of deals after 2000 the total value of transactions has significantly increased. As an indication of the latest data evidence, the total value of takeovers in the first quarter of 2004 is almost double than of first quarter of 2003.

[10] We choose the five-day period because Fuller et al. (2002) find that a five-day window around the merger announcement given by SDC is wide enough to capture the first mention of a merger every time for a sample of about 500 announcements.

$$AR_{it} = R_{it} - R_{mt} \qquad (1)$$

where, R_{it} is the return on firm i [ln (P_t)- ln (P_{t-1})] and R_{mt} is the value-weighed market index return (i.e., the FT-All Share measured as the first difference of the log of the Market Index). We then calculate the CAR for each firm over the 5-day event window. The t-statistics are estimated using the cross-sectional variation of abnormal returns.[11]

It is obvious that in our long run analysis a subsequent acquisition will occur within less than 36 months after a preceding acquisition, since our sample consists of multiple acquirers. We therefore use Calendar Time Portfolio Regressions (CTPR) to sidestep the problem of aggregating daily returns to obtain a long-term return, and allow inferences that are not biased by cross-sectional dependence.[12] In each calendar month, a portfolio is formed by including all stocks with an acquisition event during the past 12, 24, or 36 months. The portfolio is rebalanced every month by including new event firms executed a transaction in the previous month and dropping the ones whose latest acquisition event falls out of the one to three-year holding period. The average monthly abnormal return during the one to three-year post-event period is the intercept from the time-series regression of the calendar portfolio return on the Fama and French three-factor model. The FF 3-factor model are

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[11] We do not estimate market parameters based on a time period before each bid, since for frequent acquirers, there is a high probability that previous takeover attempts would be included in the estimation period, hence making beta estimations less meaningful. Additionally, it has been shown that for short window event studies, weighting the market return by the firm's beta does not significantly improve estimation. (Brown and Warner, (1980)).

[12] Cross-sectional dependence caused by overlapping observations leads to downwards-biased standard errors and therefore causes t-statistics to be biased upwards. In addition, according to Mitchell and Stafford (2000), due to the number of firms being different for each month, heteroskedastic residuals are likely to be present when regressing calendar time average portfolio returns in excess of the risk free rate against the factors of an asset-pricing model. Hence, we use Andrews (1991) heteroskedasticity and autocorrelation consistent standard errors so as to realistically assess the validity of our results.

estimated by using the UK 3-factor of Dimson et al.'s (2001) to account for the UK B/M ratio peculiarities :[13]

$$R_{pt} - R_{ft} = a_i + \beta_i (R_{mt} - R_{ft}) + s_i SMB_t + h_i HML_t + \varepsilon_{it} \qquad (2)$$

where R_{pt} is the average monthly return of the calendar portfolio, R_{ft} is the monthly risk free return, R_{mt} is the monthly return of the value-weighted market index, SMB_t the value-weighted return on small firms minus the value-weghted returns on large firms, and HML_t the value-weighted return on high book-to-market firms minus the value-weighted return on low book-to-market firms. In addition, β_i, s_i and h_i are the regression parameters and ε_{it} is the error term. The α (intercept) is interpreted as the average of the individual, firm-specific intercepts.

3. Empirical Results for the Short-run Analysis

3.1. Bidder Abnormal Returns by Target Type and Method of Payment

In Table 2, Panel A, we present five-day CARs for the full sample classified by target public status and method of payment. For all bids, the CAR is positive (0.74%) and statistically significant at 1% significance level. When focusing on public targets we obtain a significant negative CAR of –1.95%. This is consistent with UK studies of Firth (1980), Draper and Paudyal (1999, 2004), Sudarsanam Holl and Salami (1996) and Sudarsanam and Mahate (2003) who find negative and significant bidder abnormal returns surrounding the announcement. When we further differentiate on the basis of method of payment CARs are, surprisingly, all negative irrespective of the mode of financing used, with stock payment

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[13] Dimson, Nagel, and Quigley (2003) use different breakpoints to those of Fama-French (1993) to construct Size and Book-to-Market portfolios mainly due to size and B/M ratio being negatively correlated in the UK and large firms (small firms) being concentrated in the low (high) BE/ME quartile.

generating the largest negative and highly significant CAR of –4.05%. This is consistent with Myers and Majluf (1984) hypothesis and Moeller, Schlingemann and Stulz (2004) finding, suggesting that the greater information asymmetry associated with stock payments leads to more negative performance.[14] For cash payments CARs are still negative but marginally significant.[15] This can be attributed to higher offers (premium) for cash exchanges to compensate target shareholders for the immediate payment of taxes.

For private targets, CARs are positive (0.73%) and in most cases significant. This is in line with Chang (1998)[16] and Ang and Kohers (2001) who document substantial gains for acquisitions of privately held firms. According to the explanations offered, private firms exhibit concentrated ownership, which leads to less agency conflicts, alleviate the public pressure from outside investors and therefore have the opportunity to avoid hubris-motivated takeovers. The nature of private targets itself 'auto-protects' the acquiring company from managers' empire building incentives, since such acquisitions do not offer, in most cases, the prestige they pursuit. Private firms confront the problem of liquidity, meaning that they cannot be bought and sold as easily as public firms. Therefore, in order to create an attractive image for their company and a plausible incentive as a profitable investment opportunity for potential acquirers, they offer their shares at a discount (liquidity). This strategy of liquidity

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[14] Myers and Majluf (1984) argue that the premise of information asymmetry raises the proposition that managers with private information that their firm's shares are overvalued offer these shares as consideration in takeover bids. Outside investors, recognizing the *adverse selection problem*, consequently revise their estimate of the offer's value downwards, a plausible explanation for the negative performance of stock deals. Moeller et al. (2004) test this hypothesis and find that higher growth uncertainty due to informational asymmetry in the case of equity financing leads to more negative returns.

[15] Better performance of bidders used cash financing is consistent to the literature. See for example, Travlos (1987), Fishman (1989) and Martin (1996) who find that bidders making cash offers have greater abnormal returns at the bid announcement than do those making stock offers.

[16] Chang (1998) finds positive abnormal returns for stock offers to private targets and attributes this finding to the fact that privately held firms are not obliged to release value relevant information to the public, thus generating a high cost of obtaining information (*information hypothesis*). Such cost is very likely to be associated with larger returns for acquiring firms since they capture a greater proportion of the expected gains, particularly when there are only few firms with which the target may reap synergistic gains. It is finally likely that positive returns are attributed to the *limited competition hypothesis* that predicts high likelihood of underpayment.

discount becomes even more essential due to the lack of auction-like atmosphere within private firms, opposite to the auction-like nature and, obviously, liquidity of public firms, enhancing by the presence of risk arbitrageurs.

Further, we confirm Fuller et al. (2002) that public firms acquiring subsidiary targets experience the greatest gains (1.09%). With respect to medium of exchange, Faccio and Masulis (2004) posit that, when a subsidiary acquisition takes place, cash is preferred since corporations selling subsidiaries are often motivated by financial distress concerns or a desire to restructure towards their core competency. Consequently, there is strong preference for cash consideration in order to realize these financial or asset restructuring goals and also due to the fact that bidders are frequently motivated to divest subsidiaries to finance new acquisitions or reduce their tax burden. Such preference for cash payments is likely to lead to significant positive returns. [17]

A last but not least noticeable point from Table 2 is that both private and subsidiary targets exhibit substantially lower levels of stock financing (3.5% and 1.8%, respectively) approving the above cash preference explanation. To argue at this point, we note that unlisted companies are very closely held. Consequently, according to Martin (1996), since stock-financed acquisitions typically reduce the wealth of acquiring firm's shareholders, the likelihood of acquisitions being financed in this manner should be lower when block-holdings are higher.

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[17] Fuller et al. (2002) however document higher returns for subsidiary targets when stock is used as a method of payment.

3.2. Bidder Abnormal Returns by Relative Size and Method of Payment

A very important component affecting bidder returns is the relative size of target to acquirer. Due to the fact that private targets are, on average, much smaller than public targets we expect the impact on the bidder of a private acquisition to be smaller than a public acquisition. Therefore we control for the effect of target size on bidder returns in order to be able to compare in a relatively better way public and private takeovers. We use the relative size of target to bidder by defining it as target market value (when the target is public) or the deal value (when the target is a private firm or subsidiary) divided by bidder market value.

Table 3, Panel A, displays the results for the overall sample. We find that CARs are in general positively related with the relative size regardless the method of payment. Accordingly, Asquith et al. (1983), Jensen and Ruback (1983) and Kang (1993) find greater abnormal returns for large public targets in the 1970s. In addition, Fuller et al. (2002) identified a similar pattern to our evidence for a sample of US takeovers. This is linked to the suggestion made by Loderer and Martin (1990), who claim that large firms seem to pay too much for their targets and large bids seem to be overpriced on average, facts that deteriorate share price performance.

In Panel B, for public targets, we find CARs are negatively related with relative size though this result is mainly driven by stock offers. However, this pattern is reversed for private targets and subsidiaries (Panels C and D). Ang and Kohers (2001) additionally suggest that the acquiring return when bidding a public target is significantly smaller than the return when bidding a private target. In particular, the larger the target is relative to the bidder, the stronger the target's negotiating power and ability to benefit from the transaction.

Alternatively, bidding firms may find more difficult to integrate larger public targets into their business due to higher regulatory costs involved. Finally, another plausible explanation is that there are fundamental differences in the division of gains and/or synergies between takeovers involving public and private targets, and these differences are magnified the greater the relative size of the merger. According to Fuller et al. (2002), this may be to an extent due to a liquidity effect.

Finally, for all Panels (A, B, C, and D) we observe when the relative size is lower (i.e., <5% where most of large firms are included) cash offer is the dominant method of payment. Along these lines Myers and Majluf, (1984) and DeAngelo et al., (1984) argue that the larger the size of the target firm the more likely the acquirer to use share financing in M&A deals. This evidence also collaborates with Faccio and Masulis (2004) who suggest that cash financing is more preferable to larger acquirers due to its ease of use and their better access to debt markets, its ability to avoid significant costs of obtaining shareholder approval of pre-emptive rights exemptions and stock authorizations and the higher regulatory costs of stock offers.

3.3. Abnormal Returns by Book-to-Market Ratio and Method of Payment

Rau and Vermaelen (1998) suggest that glamour acquirers (i.e., with low book-to-market ratio) outperform value ones after a merger irrespective of the payment method used.[18] In some ways the market fails to understand that past managerial performance is not necessarily a good indicator of future performance, at least in the case of acquisitions. This result is in contrast to their findings for the long-run performance of bidding firms. They also report a

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[18] The main argument is the extrapolation hypothesis that explains the differential performance of glamour and value acquirers. Acquirers commanding a high market rating due to their recent performance and expected future performance (glamour acquirers) may act out of overconfidence or hubris in making acquisitions. The stocks of such companies may also be overvalued and although the managers may be aware of such overvaluation, the stock market may be not.

significant tendency of glamour acquirers to finance their acquisitions with their own stock[19] and this tendency is stronger in mergers than in tender offers.[20]

In Table 4, Panel A, we report the CARs of glamour acquirers. We find a significant positive CAR 0.87% for all acquirers. When the sample is divided according to method of payment all CARs are positive and statistically significant (except for stock payments). For public, private, and subsidiary target sub-samples, we obtain the same return pattern reported for the full sample (Table 2). Bidders, on average, lose when buying public targets (-2.75%) and gain when buying private (0.92%) and subsidiary (1.26%) targets. Taking into account the alternative methods of payment does not alter our results. Panel B reports the CARs of value acquirers and indicates the same return pattern with Panel A. As a consequence, our findings are robust for all book-to-market groups of acquirers, enhancing the full sample evidence (Table 2). Finally, consistent to Rau and Vermaelen (1998), we document that glamour acquirers significantly outperform value acquirers irrespective target type except for public acquisitions.[21]

3.4. Abnormal Returns by Domestic/Foreign Targets and Method of Payment

Since the UK is a leading player in international acquisitions, the study of UK acquisitions abroad appears as an important aspect in determining the overall success of FDI by acquisition.[22] In addition, in respect to the impact on returns of bidding firms that engage in such acquisitions, the literature suggests differing performance to domestic acquisitions,

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[19] Consistent to the information asymmetry argument, glamour acquirers tend to have high past share price returns, while the opposite is true for value acquirers. Hence, it seems plausible glamour acquirers to use their 'overvalued' equity as a method of payment and value acquirers to use cash for the opposite reasons.

[20] In our study, we will not investigate the differential performance of mergers and tender offers, since in the UK the vast majority of offers are tender offers.

[21] This finding follows Sudarsanam and Mahate (2003) who use a sample of UK public takeovers and find an inverse relationship to RV (1998) findings in the short-run.

[22] Healy and Palepu (1993) note that, over the late 1980s, the UK was the lead acquiring nation in international acquisitions accounting for almost 30 per cent of international corporate investments over that period.

although no clear conclusion can be drawn concerning the direction of the results.[23] Doukas and Travlos (1988) argue that acquisitions of non-domestic targets serve as a diversification 'vehicle' enabling the expansion of the boundary of the acquiring firm and therefore its better performance. This expansion permits the internalization of synergies that would otherwise be lost because of various market failures. As far as the method of payment is concerned, until very recently foreign takeovers by UK companies almost universally involved cash, as the targets were frequently unwilling to accept foreign equity (Gaughan, 2002).

Table 5 presents the CARs of bidders acquiring domestic (UK) or foreign (non-UK) targets. Panel A reports the results for domestic acquisitions, which mirror the previous finding obtained in the full sample of Table 2. The CARs for public targets are significantly negative (-4.27%) under stock payment and marginally significant for joined payment. However, CARs are positive and significant for private targets and subsidiaries regardless of the means of payment.[24] For cross-border acquisitions, Panel B virtually reports the same pattern as Panel A although CARs for public targets are not significant. Given that the sample size for public targets is small, it is not intuitive to draw fruitful conclusions from these results. Overall, results reported in Panel A and B confirm to a major extent the return pattern documented in Table 2. This empirical evidence is considered critical since one could argue that our results are contaminated by the initial selection of the sample including both domestic and foreign targets. In a nutshell, the general pattern holds even after target origin is taken into consideration.

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[23] See for example, Doukas and Travlos (1988), Kang (1993), Eun, Kolodny and Scheraga (1996), Fatemi and Furtedo (1998), and Goergen and Renneboog (2004).

[24] Domestic acquisitions outperform foreign ones only for private targets, possibly due to more imperfect information in non-domestic deals. The larger profits for stock versus cash payments (4.80% vs 0.69%) in foreign acquisitions could be explained by the attempt of bidders to offset the greater uncertainty connected with the information problems associated with acquiring abroad. This comes along with the findings of Goergen and

3.5. Abnormal Returns by Diversified/Non-Diversified Targets and Method of Payment

Previous empirical evidence suggests that corporate diversification may indeed affect shareholders' wealth. Jensen and Ruback (1983), Bradley, Desai and Kim (1988) found that the announcement of a diversifying acquisition was generally associated with a small positive impact on shareholder performance.[25] However, there is a large body in the literature providing evidence that diversification may diminish shareholders' wealth (e.g., Lang and Stulz, 1994; Berger and Ofek, 1995; Servaes, 1996). Doukas and Kan (2004) argue that bidders that acquire unrelated targets experience greater excess cash flow declines and valuation discounts than do bidders involved in related acquisitions. In addition, Fuller et al. (2002) examine only the diversification wealth effect of a bidder acquiring a subsidiary target that is core or non-core-related with the bidding company. They argue that the reason why a firm sells a subsidiary is the gain from the increased focus, however, they find weak evidence that diversified firms will sell subsidiaries at a discount relative to non-diversified companies.

Table 6 reports the results of bidders acquiring public, private and/or subsidiary targets that are diversified or non-diversified from the bidder's industry. A diversified company is defined as a firm whose 3-digit SIC code is different from that of the target firm.[26] Panel A presents, for diversifying acquisitions, a similar finding as the one obtained from the overall sample in Table 2. The CARs are positive and significant for the full sample (0.77%) and for private targets and subsidiaries (0.80% and 1.01% respectively), while significantly negative abnormal returns are experienced for public targets (-1.32%). Bidders buying public targets

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Renneboog (2004), who imply that the choice of means of payment does not act as a signal to the market about the over/undervaluation of the bidder's equity.

[25] For more recent evidence of positive abnormal returns from diversifying acquisitions see: Billett and Mauer (2000) and Hadlock, Ryngaert and Thomas (2001).

[26] Servaes (1996) points out that a straightforward examination of the 4-digit SIC codes of the segments of the firm does not necessarily reveal the degree of diversification of the firm. He argues that the use of the 4-digit SIC code would be too wide to identify the industrial structure of the firm. Similarly, Kahle and Walkling (1996) demonstrate how a 4-digit SIC code firm assigned to a firm might be misleading with regard to the most reasonable 2- or 3-digit classifications.

generate significant losses regardless of the method of payment used (cash or stock), while private targets earn significant gains when they purchase by cash. Panel B displays our results for non-diversifying acquisitions, which are relatively similar to Panel A. More specifically, we obtain significantly positive abnormal returns for the overall sample and for private targets and subsidiaries, and negative CARs for public acquisitions. Therefore, as a whole, we conclude that our findings are robust even after cross-industry effect is taken into consideration.

4. Empirical Results for Long-run Analysis

Our short-run analysis by using an exhaustive UK sample unequivocally confirms the general pattern identified by Fuller et al (2002) (i.e., acquirers gain when buying private targets and subsidiaries but lose when acquiring a public targets). Our unique empirical evidence, after controlling for book-to-market, core-industry, and target origin characteristics, further enhances these findings. In general, the above results lead to a natural conclusion that buying private and subsidiary firms creates value for acquiring firm shareholders but makes them worse off when acquiring public targets. However, our major doubts lie on the ability of 5-day event study to be an adequate time interval for isolating the real economic gains from market mispricing, as both are "observationally equivalent". To testify the above short-run conclusion, we must investigate whether the same pattern sustains in the long run. We therefore, in this paper, take a further step to examine long-run (one to three years) post acquisition share price performance in order to verify the short-run findings.

4.1. Bidder Abnormal Returns by Target Type and Method of Payment

Table 7, Panel A, represents the one-year post acquisition average monthly abnormal returns.[27] We obtain significant and negative monthly abnormal returns for the entire sample (-0.70%) of 3383 acquisitions and three subgroups of public, private and subsidiary targets regardless of their payment method.[28] This finding suggests that acquirers lose, on average, for one year after the acquisition irrespective of whether cash or stock is used as a form of financing. Since we came across strong evidence that bidders generate losses when they purchase public targets, while they earn significant profits when they acquire private targets and subsidiaries in the short-run, we are interested in investigating whether bidders exhibit the same return pattern in the post-event period. Alternatively, the one-year negative monthly average abnormal return for the overall portfolio could be driven solely by public targets. When examining whether the short-run wealth gains and losses remain in the long run, we find for public targets, large and significant negative monthly abnormal returns for the full sample (-1.50%) and three payment subgroups respectively. This is in general consistent with the short-run results. However, we document that monthly abnormal returns are all negative and mostly significant for both private targets and subsidiaries (-0.55% and –0.70% respectively) even when alternative methods of payment are considered. This empirical evidence, hence, stands in sharp contrast with the short-run results identified, which indicate that private targets and subsidiaries gain from acquisitions. Our results for the two-year

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[27] For space purposes we include in our discussion only 1-year share price performance results, as return patterns for 2 and 3 years respectively (as shown in Table 6) appear identical.

[28] For US empirical evidence on acquirers' long run stock returns, see for example: Asquith (1983), Malatesta (1983), Jensen and Ruback (1983), Magenheim and Mueller (1988), Agrawal, Jaffe, and Mandelker (1992), Loderer and Martin (1992), Loughran and Vijh (1997), Rau and Vermaelen (1998), Agrawal and Jaffe (2000), and Megginson, Morgan, and Nail (2004). For evidence from the UK, see for example: Firth (1980), Franks and Harris (1989), Kennedy and Limnack (1996), and Gregory (1997). There are, however, other studies [e.g., Bradley and Jarrell (1988), and Franks, Harris and Titman (1991)] that do not find significant underperformance in the three years following the merger. We are aware of very few papers examining post-acquisition performance of privately held and subsidiary firms (Moeller, Schlingemann and Stulz (2004) find insignificantly positive 3-year post-acquisition abnormal returns for private targets and zero abnormal returns for subsidiary targets).

(Panel B) and the three-year (Panel C) post event windows report virtually the same pattern with the one-year finding (Panel A). As a whole, Table 7 makes clear that, in general, frequent acquirers destroy shareholders' value in the long run irrespective of the target ownership status and the method of payment used in the transaction.

4.2. Robustness Test

We subsequently conduct a robustness test to further evaluate the above evidence. Multiple acquirers were initially defined as bidders that acquire three or more public and/or private targets and/or subsidiaries within a 3-year period. Therefore, one could argue that, for example, a 36-month return series may be determined by inter-effects sourcing from the same bidder acquiring both, public and private or subsidiary targets. In other words, the results we obtain for private targets or subsidiaries may be driven by the existence of bidder returns from public acquisitions. In order to control from the effect of public targets, we isolate a sample of acquirers who bought 'Only Private' or 'Only Subsidiary' targets and examine their long run performance. Table 8 reports the one to three year post-acquisition monthly average abnormal returns for only private and only subsidiary subgroups. For only private, one to three-year monthly abnormal returns are negative and statistically significant at the 1% level though for stock payments are in general insignificant. For only subsidiaries, one to three-year monthly abnormal returns are negative but statistically insignificant except when stock is used as payment method. However, given the small sample size for only subsidiaries, we are not able to establish valuable inferences from this evidence. As a whole, it is indicated that even for the only private and subsidiary groups, abnormal returns are negative and mostly significant. This evidence further confirms the findings reported in Table 7.

4.3. Price Reversals

Finally, we examine whether our results are just a manifestation of long-term reversals as suggested by Jegadeesh and Titman (1993). In particular, our finding that acquirers buying private targets and/or subsidiaries earn positive abnormal returns surrounding the announcement date but lose in the long run can be attributed to short-run persistence followed by long-term reversals. If the firms involved in private or subsidiary acquisitions experienced positive returns in the few months prior to the acquisition announcement, then the stock prices of these acquirers may be subject to a brief persistence followed by long-term reversals.

Firstly, the pre-event (pre-announcement) performance of each bidder acquiring private targets and/or subsidiaries is measured. Specifically, for each acquirer, we calculate average returns for the six months preceding the announcement of the acquisition. Acquisitions of private and subsidiary firms are ranked according to their pre-event returns and placed into quintiles. Subsequently we focus on acquisitions of private/subsidiary targets that lie in the top and bottom quintiles of pre-event monthly average returns. As a result we sort our sample into four categories: i) Privately-held acquisitions that experienced the highest pre-event returns, ii) Privately-held acquisitions that exhibited the lowest pre-event returns, iii) Acquisitions of subsidiary targets that generated the highest pre-event returns, and iv) Acquisitions of subsidiary targets that exhibited the lowest pre-event returns.

Results for this analysis are displayed in Table 9. We observe that acquirers of private targets who gained high pre-event returns (5.24% on average) have significant 1-year post-announcement monthly average abnormal returns of –0.47%. Similar results are obtained for 2- and 3-year analysis respectively. This finding is consistent with long-term reversal and it is

not possible to determine whether the long-term abnormal performance is solely due to reversals or whether the quality of the acquisition is a contributing factor. Noticeably however, acquirers of private targets who experienced negative pre-event returns (-1.83%) also do poorly in the long run (-1.06%). The negative average abnormal returns cannot be attributed to long-term reversals of stock returns since the acquirers had negative returns prior to the merger announcement. Moreover, bidders of subsidiary targets who earned negative pre-event returns have 1-year average abnormal returns of –1.13%. This finding also cannot be attributed to price reversals. As a consequence, we suggest that our results are not simply a manifestation of momentum and therefore they are not just capturing long run stock-price reversals.

5. Conclusion

This paper examines shareholders wealth effects of UK frequent bidders acquiring public, private, and subsidiary targets with either cash or stock. In the short-run our findings are in line with Fuller et al. (2002) and confirm that acquirers experience significant loss when buying public targets and substantial gains when purchasing private and subsidiary targets. However, given the fact that short-run event study results can be driven by market mispricing we therefore take a step further to investigate whether the above conclusion can stand up both in the long run and to a UK sample of acquisitions.

We investigate an exhaustive sample of UK frequent bidders (4173 acquisitions between 1985-2004) and corroborate Fuller et al's (2002) short-run evidence after further controlling for the value/glamour, domestic/foreign, and diversification effect. Nevertheless, our long-run results unambiguously indicate that all frequent acquirers experience wealth losses during

the three-year period after the acquisition, irrespective of the type of target acquired. This finding contrasts sharply to the short-run evidence that acquirers gain when buying private and subsidiary targets implying a possible market overreaction at the acquisition announcement. We therefore believe it is premature to accept Fuller et al.'s (2002) conclusion based solely on the short-run findings. In this respect, given the inconsistency between the short- and long-run evidence, we consider that no firm conclusion can so far be drawn on whether acquiring private and/or subsidiary targets creates real economic gains to shareholders or indeed the short run gains are merely an illusion of market mispricing.

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Table 1. Mean and Median Size of Acquirers and Targets

This table presents a sample of bidders and targets where the bidders successfully acquired three or more targets within a three-year period from 1985 to May 6, 2004 (20 years). Targets are comprised of public, private, and subsidiary firms. For each of the following panels, a particular bidder is represented only once per year but may be represented multiple times over the 20-year period. Acquirers are publicly traded firms listed on the London Stock Exchange (LSE). Targets include both foreign and domestic firms. The total row for the number of bidding firms represents the number of unique acquirers throughout the sample period. Panel A contains 618 unique bidders acquiring 4173 targets. Targets in Panel A are public, private and subsidiary firms. Panels B, C, and D represent public, private and subsidiary deals respectively. Panel B represents 148 unique bidders acquiring 195 public targets. Panel C contains 577 unique bidders acquiring 2459 private targets. Panel D includes 512 unique bidders acquiring 1519 subsidiary targets. Numbers are reported in million sterlings.

	Bidder			Target		
Year	Mean	Median	N	Mean	Median	N
Panel A: All						
1985	269.35	327.23	5	67.73	25.46	5
1986	492.16	200.05	28	41.06	7.5	35
1987	504.47	91.14	85	45.49	8.15	126
1988	411.13	95.72	150	34.53	4.79	278
1989	539.64	110.03	141	30.41	6.75	261
1990	580.75	99.91	117	18.19	5.45	186
1991	670.52	80.45	91	22.45	4.8	135
1992	455.45	99.59	93	15.84	3.35	143
1993	445.77	104.61	104	29.44	4.71	158
1994	419.3	134.36	125	29.96	5.88	192
1995	602.67	118.26	135	30.5	4.68	210
1996	696.44	151.89	154	36.66	6.04	240
1997	658.14	136.77	197	33.4	4.5	352
1998	803.28	150.33	235	35.02	5.7	412
1999	1109.31	202.45	219	54.92	9.18	406
2000	1287.05	227.76	219	41.02	9.45	398
2001	1080.93	217.18	165	36.82	7.6	273
2002	1189.66	287.09	115	88.42	8.1	183
2003	731.86	192.04	74	28.59	9.39	133
2004	689.23	218.2	39	13.077	5	47
Total	488.19	77.34	618	37.213	6.16	4173
Panel B: Public						
1985	405.64	405.64	2	140.3	140.3	2
1986	-	-	-	-	-	-
1987	994.13	337	12	122.4	89.78	13
1988	777.48	416.46	17	253.6	49.78	18
1989	510.24	141.65	20	71.85	19.1	24
1990	485.27	280.63	7	46.66	8.26	7
1991	2257.73	42.35	8	52.43	13.1	8
1992	371.57	481.8	3	7.59	5.79	3
1993	3803.38	1842.68	4	603.5	126.32	4
1994	921.11	182.99	8	345.19	47.31	8
1995	1058.83	307.07	13	86.61	56.09	13
1996	1558.31	1342.67	4	403.72	144.88	4
1997	442.21	112.48	9	67.85	28.2	9
1998	1551.1	254.68	16	179.83	38.8	16
1999	1385.95	215.63	27	124.76	38.52	28
2000	2222.77	292.9	18	184.67	76.43	18
2001	3232.45	818.91	15	215.4	187.12	15
2002	821.85	535.77	3	90.75	12.4	3
2003	1488.7	1488.7	2	180.83	180.83	2
2004	-	-	-	-	-	-
Total	1256.75	238.28	148	159.058	42.33	195

Table 1-*Continued*

	Bidder			**Target**		
Year	**Mean**	**Median**	**N**	**Mean**	**Median**	**N**
			Panel C: Private			
1985	1.55	1.55	1	0.9	0.9	1
1986	292.95	200.05	22	26.55	6.8	25
1987	223.01	132.96	56	15.9	6	73
1988	324.98	64.4	105	8.57	3.55	178
1989	380	114.23	94	13.45	4.5	139
1990	417.82	95.6	72	8.22	4.19	98
1991	210.66	61.98	47	6.98	3.95	60
1992	423.85	93.76	50	14.05	2.87	69
1993	319.11	94.93	60	11.09	4.41	74
1994	357.47	134.68	82	11.89	5	112
1995	373.71	104.78	87	19.57	3.5	123
1996	426.04	136.96	104	20.75	4.32	148
1997	606.38	99.73	143	11.41	3.55	234
1998	675.73	134.68	154	11.02	4.13	248
1999	939.95	197.85	153	24.7	7.11	234
2000	1182.51	239.05	155	26.42	7.15	247
2001	884.06	211.18	111	16.03	6.22	168
2002	769.79	216.09	79	16.82	6.86	118
2003	428.93	138.23	51	13.92	6.17	77
2004	413.26	191.85	29	9.76	4.91	33
Total	511.1	82.48	577	15.81	4.75	2459
			Panel D: Subsidiary			
1985	266.97	266.97	2	28.59	28.59	2
1986	936.1	234.99	9	77.33	12.49	10
1987	776.88	262.76	35	74.48	11.96	40
1988	611.92	208.67	67	42.8	7.9	82
1989	747.16	189.36	76	44.31	7.54	98
1990	651.81	118.08	61	27.79	6.19	81
1991	360.48	140.54	58	32.72	5.04	67
1992	651.81	117.93	55	17.92	4.64	71
1993	360.48	112.97	65	17.71	5.1	80
1994	456.98	129.87	58	23.05	7.65	72
1995	829.59	158.55	65	38.82	7.02	74
1996	1062.52	266.53	72	46.76	9	88
1997	1049.26	204.15	88	77.76	8.27	109
1998	1052.5	227.9	122	59.59	9.47	148
1999	1504.84	300.41	112	90.45	12.9	144
2000	1859.87	251.78	108	48.71	12.6	133
2001	1319.78	268.82	73	45.87	13.19	90
2002	1761.97	460.61	52	224.58	11.46	62
2003	1458.38	450.59	39	43.87	11.74	54
2004	1263.09	554.94	13	20.91	5.1	14
Total	616.21	112.81	512	56.23	8.7	1519

Table 2. Cumulative Abnormal Returns (CARs) of Frequent Acquirers

The table presents 5-day [-2, +2] Cumulative Abnormal Returns (CARs) around the announcement date of a takeover for bidders that acquired three or more public, private and/or subsidiary targets within a three-year period between 1985 and May 6, 2004 (20 years). Cumulative abnormal returns are calculated using a modified market-adjusted model:

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

where R_{it} is the Return on firm i and R_{mt} is the Value Weighed Market Index Return (FT-All Share). All acquirers are publicly traded firms listed on the London Stock Exchange (LSE). Results are comprised of bids for public, private, and subsidiary targets. The results are further divided by the method of payment. Cash financing includes transactions made solely in cash, or cash and debt. Stock offers are defined as transactions made solely in common stock. Combination financing comprises offers consisting of both cash and stock and/or convertibles, and methods classified as "other" by SDC. The number of bids is reported below the mean.

	All	Cash	Stock	Combo
	All Bids			
All Acquirers	0.74%[a]	0.64 %[a]	0.03%	0.98 %[a]
	4173	2492	158	1523
Public Targets	-1.95%[a]	-1.16%[c]	-4.05 %[a]	-1.57%[c]
	195	93	45	57
Private Targets	0.73%[a]	0.46 %[a]	0.95%	1.02 %[a]
	2459	1261	85	1113
Subsidiary Targets	1.09%[a]	0.98%[a]	3.78%	1.26%[a]
	1519	1138	28	353

[a] Denotes significance at the 1% level;
[b] Denotes significance at the 5% level;
[c] Denotes significance at the 10% level.

Table 3. Cumulative Abnormal Returns (CARs) of Frequent Acquirers by the Relative Size of the Target

The table presents 5-day [-2, +2] Cumulative Abnormal Returns around the announcement date of a takeover calculated using a modified market-adjusted model:

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

where R_{it} is the Return on firm i and R_{mt} is the Value Weighed Market Index Return (FT-All Share). All acquirers are publicly traded firms listed on the London Stock Exchange (LSE). The relative size of the target is defined as the target market value (when the firm is public) or the deal value (when the target is private firm or subsidiary) divided by bidder market value. The Acquirer Market Value (MV) is calculated as of the month before the announcement date and is the product of the monthly share price multiplied by the number of ordinary shares in issue on Datastream. Cash financing includes transactions made solely in cash, or cash and debt. Stock offers are defined as transactions made solely in common stock. Combination financing comprises offers consisting of both cash and stock and/or convertibles, and methods classified as "other" by SDC. Panel A represents all bids while Panels B to D represent public, private, and subsidiary, respectively. The number of bids is reported below the mean.

	All	Cash	Stock	Combo
Panel A: All Bids				
< 5%	0.38%[a]	0.44%[a]	-0.82%	0.37%
	2397	1588	64	745
5%-9.99%	1.10%[a]	0.85%[a]	2.64%	1.33%[a]
	666	366	19	281
10%-19.99%	0.73%[b]	0.70%[c]	-1.61%	1.09%[b]
	509	271	28	210
≥20%	1.75%[a]	1.46%[a]	1.09%	2.14%[a]
	603	268	47	288
Panel B: Public				
< 5%	-1.98%[b]	-1.97%[b]	0.60%	-2.87%
	44	32	3	9
5%-9.99%	-1.64%	-2.76%	-1.04%	0.50%
	25	15	3	7
10%-19.99%	-1.88%	-0.05%	-4.54 %[c]	1.30%
	46	20	16	10
≥20%	-2.06 %[b]	-0.08%	-4.71 %[b]	-1.75%
	80	26	23	31

[a] Denotes significance at the 1% level;
[b] Denotes significance at the 5% level;
[c] Denotes significance at the 10% level.

Table 3-*Continued*

	All	Cash	Stock	Combo
Panel C: Private				
< 5%	0.35%[b]	0.43%[b]	-1.01%	0.35%
	1500	864	50	586
5%-9.99%	1.11%[a]	0.20%	4.24%[c]	1.65%[a]
	395	168	12	215
10%-19.99%	0.61%	0.05%	5.09%	0.89%
	289	134	8	147
≥20%	2.36%[a]	1.76%[b]	2.64%	2.68%[a]
	275	95	15	165
Panel D: Subsidiary				
< 5%	0.55%[a]	0.55%[a]	-0.33%	0.61%
	852	692	11	149
5%-9.99%	1.37%[a]	1.74%[a]	0.59%	0.26%
	246	183	4	59
10%-19.99%	1.63%[a]	1.57%[a]	-3.30%	2.11%[a]
	173	116	4	53
≥20%	2.31%[a]	1.53%[a]	13.35%[b]	2.48%[a]
	248	147	9	92

[a] Denotes significance at the 1% level;
[b] Denotes significance at the 5% level;
[c] Denotes significance at the 10% level.

Table 4. Cumulative Abnormal Returns (CARs) of Frequent Acquirers by their Book-to-Market (B/M) Ratio

The table presents 5-day [-2, +2] Cumulative Abnormal Returns of glamour and value acquirers around the announcement date of a takeover calculated using a modified market-adjusted model:

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

where R_{it} is the Return on firm i and R_{mt} is the Value Weighed Market Index Return (FT-All Share). All acquirers are UK public firms listed on the London Stock Exchange (LSE). The glamour acquirers are defined as those with low book-to-market ratio, while the value acquirers are defined as those with high book-to-market ratio. The acquirer book-to-market ratio is calculated one month before the acquisition announcement date and is the product of the net book value divided by the Market Value. Cash financing includes transactions made solely in cash, or cash and debt. Stock offers are defined as transactions made solely in common stock. Combination payment comprises offers consisting of both cash and stock and/or convertibles, and methods classified as "other" by SDC. Panel A reports the results for Glamour Acquirers. Panel B represents the results for Value Acquirers. The number of bids is reported below the mean.

	All	Cash	Stock	Combo
Panel A: Low B/M (Glamour Acquirers)				
All Acquirers	0.87%[a]	0.80%[b]	0.40%	1.01%[a]
	1913	1049	71	793
Public Targets	-2.75%[a]	-1.39%	-7.51%[a]	-1.34%
	80	42	18	20
Private Targets	0.91%[a]	0.92%[a]	0.82%	0.90%[a]
	1211	561	41	609
Subsidiary Targets	1.26%[a]	0.85%[a]	10.85%[b]	1.69%[a]
	622	446	12	164
Panel B: High B/M (Value Acquirers)				
All Acquirers	0.75%[a]	0.64%[a]	0.06%	1.04%[a]
	1913	1227	65	621
Public Targets	-1.44%[b]	-1.01%	-2.29 %[c]	-1.29%
	97	38	25	34
Private Targets	0.68%[a]	0.18%	1.77%	1.28%[a]
	1028	572	30	426
Subsidiary Targets	1.10%[a]	1.16%[a]	0.81%	0.90%[b]
	788	617	10	161

[a] Denotes significance at the 1% level;
[b] Denotes significance at the 5% level;
[c] Denotes significance at the 10% level.

Table 5. Cumulative Abnormal Returns (CARs) of Frequent Acquirers by the Target Origin (Domestic Vs Foreign)

The table presents 5-day [-2, +2] Cumulative Abnormal Returns of a bidder acquiring a domestic or foreign company around the announcement date of a takeover calculated using a modified market-adjusted model:

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

where R_{it} is the Return on firm i and R_{mt} is the Value Weighed Market Index Return (FT-All Share). All acquirers are publicly traded firms listed on the London Stock Exchange (LSE). The domestic and foreign targets are defined as UK and non-UK firms respectively. The results for each panel are further divided by the method of payment. Cash financing includes transactions made solely in cash, or cash and debt. Stock offers are defined as transactions made solely in common stock. Combination financing comprises offers consisting of both cash and stock and/or convertibles, and methods classified as "other" by SDC. Panel A reports the results for domestic targets. Panel B reports the results for foreign targets. The number of bids is reported below the mean

	All	Cash	Stock	Combo
Panel A: Domestic Targets				
All Acquirers	0.62%[a]	0.60%[a]	-1.00%	0.85%[a]
	2680	1492	130	1058
Public Targets	-2.24%[a]	-1.13%	-4.27%[a]	-1.84%[c]
	157	63	44	50
Private Targets	0.80%[a]	0.52%[b]	0.25%	1.09%[a]
	1534	696	64	774
Subsidiary Targets	0.80%[a]	0.82%[a]	1.89%	0.63%[c]
	989	733	22	234
Panel B: Foreign Targets				
All Acquirers	0.95%[a]	0.69%[a]	4.80%[b]	1.26%[a]
	1495	1001	28	466
Public Targets	-0.75%	-1.22%	5.69%	0.35%
	38	30	1	7
Private Targets	0.62%[a]	0.39%	3.08%	0.84%[b]
	925	565	21	339
Subsidiary Targets	1.64%[a]	1.25%[a]	10.68%	2.50%[a]
	532	406	6	120

[a] Denotes significance at the 1% level;
[b] Denotes significance at the 5% level;
[c] Denotes significance at the 10% level

Table 6. Cumulative Abnormal Returns (CARs) of Frequent Acquirers by Diversifying/Non-Diversifying Acquisitions

This table displays the Cumulative Abnormal Returns of a diversified bidder acquiring a public, private or subsidiary firm, represented in Panel A, or non-diversified, represented in Panel B. A diversified bidder is defined as a firm whose three-digit SIC code is different from that of the target company. CARs are calculated for the five days [-2, +2] around the announcement (day 0) of a takeover. Abnormal Returns are estimated using a modified market-adjusted model:

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

where R_{it} is the Return on firm i [ln (P_t)- ln (P_{t-1})] and R_{mt} is the Value Weighed Market Index Return (FT-All Share). All acquirers are publicly traded firms listed on the London Stock Exchange (LSE). The results for each panel are further divided by the method of payment. Cash financing includes transactions made solely in cash, or cash and debt. Stock offers are defined as transactions made solely in common stock. Combination financing comprises offers consisting of both cash and stock and/or convertibles, and methods classified as "other" by SDC. The number of bids is reported below the mean.

	All	Cash	Stock	Combo
Panel A: Diversified Bidder				
All Acquirers	0.77%[a]	0.68%[a]	0.18%	0.99%[a]
	2708	1639	97	972
Public Targets	-1.32%[a]	-1.05%[c]	-2.07%[c]	-1.20%
	134	60	29	45
Private Targets	0.80%[a]	0.55%[a]	1.04%	1.07%[a]
	1558	811	48	699
Subsidiary Targets	1.01%[a]	0.95%[a]	1.39%	1.17%[a]
	1016	768	20	228
Panel B: Non-Diversified Bidder				
All Acquirers	0.67%[a]	0.55%[a]	-0.22%	0.95%[a]
	1465	853	61	551
Public Targets	-3.31%[a]	-1.36%	-7.63%[b]	-2.94%
	61	33	16	12
Private Targets	0.60%[b]	0.29%	0.83%	0.92%[b]
	901	450	37	414
Subsidiary Targets	1.27%[a]	1.04%[a]	9.75%	1.44%[b]
	503	370	8	125

[a] Denotes significance at the 1% level;
[b] Denotes significance at the 5% level;
[c] Denotes significance at the 10% level.

Table 7. Calendar-Time Portfolio Regression of Long-Run Stock Returns using Fama-French 3-Factor Model

This table presents the OLS estimates of abnormal returns to merger portfolios according to the Fama and French 3-factor model. The sample of the overall portfolio consists of 3383, 2995 and 2607 successful takeover bids that took place over the period 1985-2000 (for 1, 2 and 3-year analysis respectively) as identified from the *Securities Data Corporation's* (SDC) *Global Financing* database. Calendar time regressions are performed on the basis of target public status (Public, Private, Subsidiary). Results are then further divided by the method of payment (Cash, Stock, Combination of Cash and Stock). Cash financing includes transactions made solely in cash, or cash and debt. Stock offers are defined as transactions made solely in common stock. Combination financing comprises offers consisting of both cash and stock and/or convertibles, and methods classified as "other" by SDC. Acquirers enter the portfolio on the effective day of the successful takeover and remain for 12, 24 and 36 months respectively. Portfolios are rebalanced each month to include firms that have just completed a takeover. We estimate the calendar-time return under the Fama-French 3-factor model with the following regression:

$$R_{pt} - R_{ft} = a_i + \beta_i (R_{mt} - R_{ft}) + s_i SMB_t + h_i HML_t + \varepsilon_{it}$$

The numbers in percentage represent the reported FF α, which is the average of the individual, firm-specific intercepts. The t-statistics are calculated on the basis of Andrews (1991) heteroskedasticity and autocorrelation consistent standard errors. The number of firms is reported below the monthly average abnormal returns.

	All	Cash	Stock	Combo
Panel A: 1 Year				
All Acquirers	-0.70%[a]	-0.74%[a]	-1.73%[a]	-0.49%[b]
	3383	2050	133	1200
Public Targets	-1.50%[a]	-0.72%[c]	-2.03%[a]	-2.36[a]
	168	79	41	48
Private Targets	-0.55%[c]	-0.60%[b]	-1.32%[c]	-0.65%[a]
	1965	1032	70	863
Subsidiary Targets	-0.70%[a]	-0.76%[a]	-0.43%	-0.49%
	1250	939	22	289
Panel B: 2 Years				
All Acquirers	-0.86%[a]	-0.79%[a]	-1.51%[b]	-1.07%[a]
	2995	1858	121	1016
Public Targets	-1.60 %[a]	-0.98%[a]	-2.59%[a]	-2.41%[a]
	145	67	37	41
Private Targets	-0.72%[a]	-0.62%[b]	-1.56%[c]	-1.08%[a]
	1728	941	63	724
Subsidiary Targets	-0.80%[a]	-0.83%[a]	-0.31%	-1.20%[a]
	1122	850	21	251

[a] Denotes significance at the 1% level;
[b] Denotes significance at the 5% level;
[c] Denotes significance at the 10% level.

Table 7-*Continued*

	All	Cash	Stock	Combo
	Panel C: 3 Years			
All Acquirers	-0.94%[a]	-0.95%[a]	-1.49%[a]	-1.01%[a]
	2607	1634	111	862
Public Targets	-1.35 %[a]	-1.06%[a]	-1.99%[a]	-1.86%[a]
	121	56	33	32
Private Targets	-0.84%[a]	-0.74%[a]	-1.62%[a]	-1.13%[a]
	1496	827	58	611
Subsidiary Targets	-0.88%[a]	-1.01%[a]	0.27%	-0.96%[a]
	990	751	20	219

[a] Denotes significance at the 1% level;
[b] Denotes significance at the 5% level;
[c] Denotes significance at the 10% level.

Table 8. Calendar-Time Portfolio Regression of Long-Run Stock Returns using Fama-French 3-Factor Model for 'Only Private'-'Only Subsidiary' Targets

This table presents the OLS estimates of abnormal returns to merger portfolios according to the Fama and French 3-factor model. Calendar time regressions are performed on the basis of calendar time regressions are performed on the basis of bidders that acquired 'Only Private' targets or 'Only Subsidiaries'. Results are then further divided by the method of payment (Cash, Stock, Combination of Cash and Stock). Cash financing includes transactions made solely in cash, or cash and debt. Stock offers are defined as transactions made solely in common stock. Combination financing comprises offers consisting of both cash and stock and/or convertibles, and methods classified as "other" by SDC. Acquirers enter the portfolio on the effective day of the successful takeover and remain for 12, 24 and 36 months respectively. Portfolios are rebalanced each month to include firms that have just completed a takeover. We estimate the calendar-time return under the Fama-French 3-factor model with the following regression:

$$R_{pt} - R_{ft} = a_i + \beta_i(R_{mt} - R_{ft}) + s_i SMB_t + h_i HML_t + \varepsilon_{it}$$

The t-statistics are calculated on the basis of Andrews (1991) heteroskedasticity and autocorrelation consistent standard errors. The numbers in percentage represent the reported FF α, which is the average of the individual, firm-specific intercepts. The number of firms is reported below the monthly average abnormal returns.

	All	Cash	Stock	Combo
Panel A: 1 Year				
Only Private	-1.53%[a]	-0.86%[c]	-1.03%	-1.32%[b]
	313	135	12	166
Only Subsidiary	-0.70%	-0.51%	-2.09%[b]	-0.42%
	87	44	24	19
Panel B: 2 Years				
Only Private	-1.43%[a]	-0.69%	-1.80%	-1.52%[a]
	268	125	12	131
Only Subsidiary	-0.51%	-0.40%	-1.24%[c]	-0.55%
	75	35	23	17
Panel C: 3 Years				
Only Private	-1.48%[a]	-1.30%[a]	-1.68%[c]	-1.44%[a]
	234	109	12	113
Only Subsidiary	-0.26%	-0.07%	-0.02%	-1.12%
	68	31	21	16

[a] Denotes significance at the 1% level;
[b] Denotes significance at the 5% level;
[c] Denotes significance at the 10% level.

Table 9. Calendar-Time Portfolio Regression of Long-Run Stock Returns using Fama-French 3-Factor Model of Acquirers Buying Private Targets and Subsidiaries with the Best and Worst Pre-event Performance

This table presents pre-announcement monthly average returns as well as 1, 2 and 3-year monthly average calendar time abnormal returns of four categories of acquirers. Firstly, acquirers are divided into two groups: acquirers of private and subsidiary targets respectively. These two groups created are further subdivided into four categories: i) Acquirers of private targets who had the highest six-month pre-announcememt average returns, ii) Acquirers of private targets who had the lowest six-month pre-announcememt average returns, iii) Acquirers of subsidiary targets who had the highest six-month pre-announcememt average returns, iv) Acquirers of subsidiary targets who had the lowest six-month pre-announcememt average returns. We estimate the calendar-time post-event returns under the Fama-French 3-factor model with the following regression:

$$R_{pt} - R_{ft} = a_i + \beta_i (R_{mt} - R_{ft}) + s_i SMB_t + h_i HML_t + \varepsilon_{it}$$

The t-statistics are calculated on the basis of Andrews (1991) heteroskedasticity and autocorrelation consistent standard errors. The numbers in percentage represent the reported FF α, which is the average of the individual, firm-specific intercepts. The number of firms is reported in parenthesis.

	Private Targets		Subsidiary Targets	
	Top quintile in terms of pre-event returns	Bottom quintile in terms of pre-event returns	Top quintile in terms of pre-event returns	Bottom quintile in terms of pre-event returns
6-Month Pre-Event	5.24% (959)	-1.83% (959)	4.37% (616)	-1.72% (616)
1-Year Post-Event	-0.47%[b]	-1.06%[a]	-0.41%	-1.13%[a]
6-Month Pre-Event	4.78% (844)	-1.71% (844)	4.20% (552)	-1.57% (552)
2-Year Post-Event	-0.86%[a]	-1.04%[a]	-0.59%[b]	-1.12%[a]
6-Month Pre-Event	4.55% (731)	-1.71% (731)	4.08% (486)	-1.56% (486)
3-Year Post-Event	-1.06%[a]	-0.96%[a]	-0.58%[c]	-1.17%[a]

[a] Denotes significance at the 1% level;
[b] Denotes significance at the 5% level;
[c] Denotes significance at the 10% level.