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Wealth Creation for Acquirers of Listed and Unlisted Targets

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Abstract

We examine announcement period excess returns to acquirers of listed and unlisted targets in 17 Western European countries over the interval 1996 through 2001. Acquirers of listed targets earn an insignificant average excess return of -0.38%, while acquirers of unlisted targets earn a significant average excess return of +1.48%. This "listing effect" in acquirers' returns persists through time and across countries and remains after controlling for method of payment for the target, the acquirer's size and Tobin's Q, the "liquidity" of the target, whether the acquisition created a blockholder in the acquirer's ownership structure, whether the acquisition was a crossborder deal, and other variables. The fundamental factors that give rise to the listing effect, which has also been documented in U.S. acquisitions, remain elusive.

Wealth Creation for Acquirers of Listed and Unlisted Targets

A persistent phenomenon in studies of U.S. acquisitions is that acquirers achieve zero or negative announcement period excess returns when acquiring listed targets and positive announcement period excess returns when acquiring unlisted targets (Chang (1998), Fuller, Netter and Stegemoller (2002), Hansen and Lott (1996) and Moeller, Schlingemann and Stulz (2003)). Additionally, when unlisted targets are separately categorized as stand-alone companies and subsidiaries of other firms, bidders earn positive excess returns when acquiring targets from either category.

Various hypotheses have been proffered to explain this phenomenon. Chang (1998) proposes that acquisitions of unlisted targets with payment made in stock often create blockholders who act as effective monitors of the bidder's management with the presumed consequence that such monitors lead to improved performance by the acquirer. Consistent with his argument, for unlisted targets, he reports that acquirers' returns are higher when payment is made in stock and when the acquisition creates a new blockholder in the acquirer's ownership structure. Fuller et al (2002) offer up a number of possible explanations. Prominent among them is the conjecture that the acquirer gains because it is reaping an "illiquidity" discount when buying unlisted targets. However, they do not test this hypothesis. Hansen and Lott (1996) hypothesize that shareholders of publicly-traded acquirers own diversified portfolios that include the shares of other listed companies, but do not (and cannot) include the shares of privately held companies. For this reason, they argue, given conservation of values, shareholders do not care when managers "over pay" for publicly-traded targets because any loss in value for the buyer is merely a transfer to the target company's shareholders. Acquisition of an unlisted target is a

different matter because those are not part of the acquirers' shareholders' portfolios so the acquirers' shareholders will, therefore, insist that only value-increasing acquisitions of private targets be undertaken.

Moeller et al (2003) conduct an exhaustive examination of 12,023 listed and unlisted acquisitions by U.S. bidders over the period 1980 through 2001. They focus on the size of the bidder as a determinant of acquirers' returns rather than whether the target is listed. Nevertheless, they provide tantalizing evidence on the effect of the listing status of the target on acquirers' returns. In particular, in cross-sectional regressions, they find that the size of the acquirer is a key determinant of the acquirer's announcement period excess return with bigger bidders being worse bidders. Though they do not discuss it in any detail and do not explore the question further, they also report that unlisted stand-alone targets and unlisted subsidiary targets provide significantly larger excess returns to acquirers than do acquisitions of listed targets and this result appears to be robust to the size of the acquirer. (Henceforth, we refer to this as the "listing effect" in acquirer returns.) One further possible explanation of the listing effect is that it is a spurious finding that is unique to the time period chosen for the analysis. Given that these studies tend to encompass similar, but not overlapping, time periods, that is a possible, but unlikely, explanation. Or it could be that the effect has nothing to do with listing status per se, but rather it is unique to the U.S. because of some institutional or regulatory factor that is also unique to the U.S.

In this study, we explore the listing effect to determine its generality. We do so by examining excess returns around announcements of acquisitions in 17 Western European countries. We find that the effect is widespread. Over the interval 1996 through 2001, for a sample of 4,429 completed acquisitions, acquirers earn an insignificant average excess return of

-0.38% around announcements of acquisitions of listed targets and a significant positive average excess return of 1.48% around announcements of acquisitions of unlisted stand-alone targets and subsidiaries. Furthermore, this effect is present in the full sample and for individual countries in which there are enough observations to conduct meaningful tests. Additionally, the effect occurs for unlisted free-standing targets and unlisted subsidiary targets. Moreover, the effect persists after controlling for the size of the bidder, whether a blockholder is created in the bidder, the method of payment, the "liquidity" of the target's assets, the relative size of the target, the bidder's Tobin's Q, whether the acquisition is a cross-border deal, and whether the acquirer and the target come from the same industry. Indeed, in cross-sectional regressions in which the acquirer's announcement period excess return is the dependent variable, the only independent variables that are significant are the bidder's size (i.e., the acquirer's market value of equity) and whether the target is an unlisted free-standing company or an unlisted subsidiary. Thus, the listing effect and the size effect in acquirers' stock returns both appear to be universal phenomena. We explore a number of possible explanations for the listing effect in acquirers' announcement period stock returns. These various explanations fall short of identifying the underlying cause of the listing effect. Regardless of its cause, the listing effect appears to be universal. Acquirers appear to do better for their shareholders by acquiring unlisted targets.

The next section describes our data and sample. Section II considers whether the listing effect persists through time and across countries. Section III presents univariate tests of certain explanations of the listing effect. Section IV presents results based on multivariate tests. Section V concludes.

I. Sample selection, data, and methodology

A. Sample and sources of data

Our sample includes acquisitions over the period January 1, 1996 through December 31, 2001 by companies incorporated in the 17 Western European countries listed in Table I.¹ An initial set of 28,242 "acquisitions" was obtained from the *SDC PlatinumTM Worldwide Mergers and Acquisitions Database*. The database gives various information regarding the acquisition, including an initial announcement date, the dollar amount paid for the target, the amount of any liabilities assumed or paid off by the acquirer, the acquirer's and the target's Standard Industrial Classification (SIC) code, the countries in which the acquirer and target were incorporated, and the method of payment for the target (cash, stock, debt or a combination). The *SDC* database also reports whether the target's shares were listed on an exchange.

From the initial list, all acquisitions in which the amount paid for the target is not given or was less than \$5 million are deleted. Of the remaining 10,163 observations, 755 share repurchases and 146 duplicate announcements are also deleted.

Stock price data used in our analyses are taken from *Datastream*. Because stock price data for the acquiring company are not available on *Datastream* around the announcement date of the acquisition for 1,077 acquisitions, these, too, are deleted.

Because we are interested only in completed control acquisitions, we require that the acquirer owned less than 10% of the shares of the target prior to the acquisition announcement and that the acquirer successfully sought to increase its ownership position to greater than 50%. Application of this requirement reduced the sample to 5,020 observations.

¹ The initial sample included 18 countries, but Luxembourg dropped out when various screens were applied as discussed below.

We also deleted deals where the target's listing status is something other than public, private, or subsidiary.² This leaves 4,903 observations. Finally, we eliminated transactions for which the previous year-end market value of the acquirer is missing, leaving us with a final sample of 4,429 acquisitions. Of these, 735 of the targets were listed on an exchange; 1,956 were unlisted stand-alone companies; and 1,738 were unlisted subsidiaries.

Announcement period excess stock returns (APERs) are calculated using market-adjusted returns. To implement this procedure, we subtract the daily return of the *Datastream* index for the acquirer's home country from the acquirer's daily stock return each day over the interval beginning two days prior to and ending two days after the announcement of the acquisition. These differences are summed to provide a 5-day APER that comprises our measure of the acquirer's wealth creation. We use the *SDC* announcement date as the announcement date for our study. According to *SDC*, this is the date on which the deal was first publicly announced.

We take the acquirer's book value of debt and equity from *Worldscope*. Because these data are not available for every transaction, our sample sizes for various tests differ depending on whether these variables are included in the analysis. For each test, we report the sample size employed.

B. The sample by year and home country of the acquirer

Table I presents the number of acquisitions by year according to the home country of the acquirer. The observations are reasonably evenly spread across years, although there is a lump in 2000. Further, the sample is clearly dominated with acquisitions by U.K. firms. Where appropriate in our tests, we separately consider U.K. acquirers or include a dummy variable for

² For example, privatizations, joint ventures, and unidentified cases.

the U.K. to control for the possibility that U.K. acquisitions could overwhelm the results from other countries.

II. Does the listing effect persist through time and across countries?

In this section, we consider univariate tests of APERs through time and across countries to determine the generality of the listing effect in acquirers' announcement period stock returns.

A. Set-up of the tables

In the tables, we present the mean and median APERs for each sample along with the number of observations for acquirers of listed targets, for acquirers of all unlisted targets combined, and separately for acquirers of unlisted stand-alone companies and for acquirers of unlisted subsidiaries. We test to determine whether the mean and median APER of each sample is significantly different from zero. We also test whether the mean and median APERs for acquirers of listed targets are significantly different from the means and medians of the APERs for acquirers of unlisted stand-alone targets and for acquirers of subsidiary targets.

There is also the question of whether the APERs for acquirers of unlisted stand-alone companies are significantly different from the APERs for the acquirers of unlisted subsidiaries. As it turns out, in only one case is the mean or median APER statistically significantly different (at the 0.05 level) between acquirers of unlisted stand-alone companies and acquirers of unlisted subsidiaries. Thus, we do not present this statistic for any of the samples we consider. Additionally, we focus our discussion on mean APERs because mean and median APERs fundamentally tell the same story.

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B. APERs by year of acquisition

As shown in Table II, and consistent with studies based on U.S. acquisitions, the mean APER for acquirers of listed targets is negative (-0.38%) and not statistically significantly different from zero; the mean APER for acquirers of unlisted stand-alone companies is positive (1.51%) and highly statistically significantly different from zero (p-value < 0.01); and the mean APER for acquirers of subsidiaries is also positive (1.44%) and highly significantly different from zero (p-value < 0.01). Perhaps of greatest importance, the mean APER for acquirers of unlisted stand-alone companies and the mean APER for acquirers of unlisted subsidiaries are both significantly greater than the mean APER for the acquirers of listed targets (both p-values < 0.01).

Also as shown in Table II, the results are not due to a few isolated years. In no year is the mean APER for acquirers of listed targets significantly different from zero at the 0.05 level; whereas in every year, the mean APER for acquirers of unlisted stand-alone companies is positive and significantly different from zero at the 0.01 level and in every year but one, the mean APER for acquirers of unlisted subsidiaries is positive and significantly different from zero at the 0.01 level. In the other year, it is positive and significant at the 0.05 level. Again, and most importantly, in every year but one, the mean APER for acquirers of unlisted subsidiaries is significantly greater than the mean APER for acquirers of unlisted subsidiaries is significantly greater than the mean APER for acquirers of listed targets at the 0.01 level or better.

So, how do these results compare with those from the U.S.? Hansen and Lott (1996) report a mean excess return of -0.98% for acquirers of listed targets and a mean excess return of +1.15% for acquirers of unlisted targets. Chang's (1998) corresponding numbers are -1.49% and +1.45%. Moeller et al (2003) and Fuller et al (2002) separate their sample of targets into

listed companies, stand-alone unlisted companies, and unlisted subsidiaries. The average APERs for the three groups from Moeller et al are -0.40%, +1.80%, and +2.51%, respectively. For Fuller et al, the equivalent numbers are -1.00%, +2.08% and +2.75%. In all four studies, mean differences between bidders' returns for acquisitions of listed and unlisted targets are significant at the 0.01 level.

In terms of their signs, magnitudes, and statistical significance, our results line up quite closely with those from the U.S. Apparently, the listing effect in acquirers' announcement period stock returns is not unique to the U.S.

C. APERs by home country of the bidder

To be certain that the listing effect is not simply a U.K. effect, we separately calculate APERs for U.K. acquirers and for non-U.K. acquirers. As shown in the top two rows of Panel A in Table III, the pattern in the results for the two sets of acquirers is quite similar. The mean APER for acquirers of unlisted targets, for both stand-alone companies and subsidiaries, is significantly greater than zero and significantly greater than the mean APER for acquirers of listed targets for both U.K. acquirers. To the extent that there is any difference between the two sets of acquirers, it is that non-U.K. acquirers do somewhat better in buying both listed and unlisted targets. Thus, the listing effect in European acquirers' announcement period stock returns is not just a U.K. effect.

To further explore the generality of the listing effect in European acquirers' stock returns, the remaining rows of Panel A give the APERs by the home country of the acquirer for each country in which acquirers made at least 30 acquisitions each of listed targets, unlisted standalone companies, and unlisted subsidiaries. These include, in alphabetical order, France, Germany, Italy, the Netherlands, and Sweden. We group acquirers from other countries together as a separate "all-other" sample.

The results for the individual countries are largely consistent with the results for the full sample. For no country is the mean APER for acquirers of listed targets significantly greater than zero at the 0.05 level, although it is positive in two countries. In contrast, the mean APER for unlisted targets is significantly positive at the 0.05 level or better in five of the six countries. The lone exception is France. In France, the mean APER for unlisted targets is positive, but not significantly greater than zero. It is, however, significantly greater than the mean APER for acquirers of listed targets. Thus, there is still a listing effect in France in that, on average, French acquirers of unlisted targets earn significantly higher announcement period excess returns than do French acquirers of listed targets.

The only snag in the results based on individual countries is the all-other set. For the allother sample, the mean APERs for acquirers of unlisted targets combined and separately for stand-alone companies and for subsidiaries are all positive and significantly greater than zero, but so is the mean APER for acquirers of listed targets. Further, the mean APER for acquirers of unlisted targets is greater than the mean APER for acquirers of listed targets, but the difference is not statistically significant at even the 0.10 level. Thus, in all other countries, there is still a listing effect, but it is modest and not statistically significant.

III. Explanations of the listing effect in acquirers' stock returns: Univariate tests

The results of section II demonstrate that the listing effect in acquirers' stock returns is not isolated to the U.S. Having established that, we now consider various explanations of the listing effect. These hypotheses, or perhaps conjectures on our part, derive from various sources and have received some support in studies based on U.S. data.

A. APERS by method of payment

For U.S. acquirers of unlisted targets, Chang (1998) reports a higher average announcement period return when payment for the target is in stock rather than cash. He proposes that the listing effect could be a method of payment effect. For U.S. acquirers of listed targets, Travlos (1987) reports a higher average announcement period return when payment for the target is in cash rather than stock. Fuller et al (2002) confirm both findings. It is possible that our results are due to the method of payment rather than the listing status of the target. That could occur, for example, if most of the targets in our sample - - both listed and unlisted - - are bought with stock. In that case, on average, if the results from the U.S. persist globally or at least across the Atlantic, acquirers of listed targets would earn small or negative excess returns and acquirers of unlisted targets would earn positive excess returns.

To examine that possibility, we classify the method of payment into cash and stock where "cash" is defined as the total payment made in cash, non-contingent liabilities, and newly issued notes and "stock" is defined as payment in the form of shares of the acquiring company.³ We categorize transactions by method of payment as "all-cash," "all-stock," or "cash & stock."

The top two rows of Panel A of Table IV give the fraction of all-cash deals and all-stock deals for each category of acquisition. These data do not offer much support for the possibility that the listing effect is actually a method of payment effect as 59% of listed target acquisitions are all-cash deals and 78% of unlisted target acquisitions are all-cash deals. Panel B of Table III gives direct evidence on whether the listing effect is actually a method of payment effect. The

 $^{^{3}}$ We make no claim to novelty with this grouping to identify acquisitions by method of payment. For predecessors see, for example, Fuller, Netter and Stegemoller (2002) and Martin (1996).

results here are interesting and come in two parts. First, as regards the question of whether the listing effect is a method of payment effect, the answer is no: Regardless of payment method, mean APERs of acquirers of unlisted targets, both stand-alone companies and subsidiaries, are significantly greater than zero and significantly greater than the mean APERs of acquirers of listed targets. Furthermore, in no case is the mean APER for acquirers of listed targets significantly different from zero; for two of the three method-of-payment samples, it is negative and in the third, it is a small positive number. Thus, the listing effect in acquirers' announcement period stock returns is not a method-of-payment effect masquerading as a listing effect.

The second interesting finding is that the results from the U.S. are confirmed in Europe in that APERs for acquirers of listed targets are higher when payment is made in cash rather than stock (0.30% v. -1.81%; p-value for the difference = 0.002); while APERs for acquirers of unlisted targets are higher when payment is made in stock rather cash (3.90% v. 1.17%; p-value for the difference < 0.001). Thus, to the extent that there is a method of payment effect in U.S. acquirers' stock returns, the same effect is at work in European acquirers' stock returns. Nevertheless, of most importance for our purposes, the listing effect is not a method of payment effect in acquirers' announcement period stock returns.

B. APERs by whether a new blockholder is created

For U.S. acquirers, Chang (1998) reports that average announcement period excess returns are significantly larger when the acquisition creates a blockholder in the acquiring company's ownership structure. This situation typically comes about because the bidder has paid for the target with stock. Chang conjectures that "...the creation of an outside blockholder results in an increase in firm value through more efficient monitoring." (p. 778.) If unlisted targets tend to be more closely held than are listed targets and if many are acquired with stock,

the fraction of unlisted acquisitions that give rise to blockholder creation may greatly exceed the fraction of listed acquisitions that give rise to blockholder creation. If so, the apparent listing effect that we observe actually may be a blockholder creation effect. As we noted above, however, most targets in our sample are acquired for cash. Nevertheless, we explore the data to determine whether the listing effect might actually be a blockholder creation effect.

As does Chang, we denote a blockholder as an investor who owns more than 5% of the acquirer's stock. Because none of our data sources indicate whether an acquisition created a blockholder in the acquirer, we calculate a proxy to identify whether the acquisition created a blockholder in the acquirer's ownership structure. To do so, for unlisted targets, we divide the market value of stock paid for the target by the sum of the market value of the acquirer's common stock five days prior to announcement plus the market value of any stock issued to buy the target. Implicit in this calculation is the assumption that unlisted targets are closely held.⁴ For listed targets, we multiply this fraction by the percentage of shares held by the target's largest shareholder.⁵ We classify acquirers as having a blockholder created by means of the acquisition if our proxy is 0.05 or greater.

The third row of Panel A of Table IV gives the fraction of acquirers in which a blockholder was created for each category of acquisition. Contrary to Chang's conjecture, in a slightly higher fraction of cases, (in our sample using our proxy at least) acquirers of listed targets structure the transaction in such a way as to create a blockholder in the acquiring company more often than do acquirers of unlisted targets. That is, it is more often the case that a blockholder is created in the acquirers of listed targets than in the acquirers of unlisted targets.

⁴ To the extent that this assumption is invalid, of course, our tests will be prejudiced against finding any blockholder effect.

⁵ Sources for the ownership data are given in Appendix A.

APERs according to whether a blockholder was created in the acquirer are given in Panel C of Table III. The results here are easy to summarize. Regardless of whether a blockholder is created, the mean APER for acquirers of unlisted targets, both stand-alone companies and subsidiaries, is positive and significantly greater than zero. It is also significantly greater than the mean APER for the acquirers of listed targets. Finally, regardless of whether the acquisition did or did not create a blockholder in the acquirer, the mean APER of the acquirer is not significantly different from zero. Thus, these results indicate that the listing effect in European acquisitions is not a blockholder creation effect.

C. APERS by size of the bidder

Hints of a size effect in acquirer returns in which bigger buyers have lower announcement period returns appeared in Loderer and Martin (1990) and Schwert (2000). Moeller et al (2003) examine the issue exhaustively. They document significantly higher announcement period returns for smaller acquiring firms regardless of the type of target, the method of payment, the size of the target, and a number of other deal and acquirer characteristics. They also report, but do not discuss in detail, that buyers of unlisted targets, regardless of whether the targets are stand-alone companies or subsidiaries, have significantly higher announcement period returns than do buyers of listed targets. It is possible that our results are really a "size of acquirer" effect in which bigger bidders tend to buy listed targets, while smaller bidders tend to buy unlisted stand-alone targets and subsidiaries.

To address that possibility, we classify acquirers according to the market value of their common stock as of five days prior to the acquisition announcement where the market value of common stock is calculated as the number of shares outstanding times the market price per share. We then classify an acquirer as "big" if its market value is greater than the median market value

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of all acquirers in our sample for the calendar year in which the acquisition was announced. All others are "small." Mean and median market values of equity of the various categories of acquirers are given in the first row of Panel B of Table IV. Unsurprisingly, acquirers of listed targets tend to be bigger than acquirers of unlisted targets.

APERs for big and small acquirers are given in Panel D of Table III. Interestingly, there is not a clear-cut size effect in acquirer announcement period stock returns. Although both small and big acquirers earn negative APERs when buying listed targets, small bidders do somewhat worse than big bidders in this set of acquisitions. In comparison, small bidders do somewhat better than big bidders when buying unlisted stand-alone targets and subsidiaries. Nevertheless, both small and big bidders earn positive and significant excess returns when buying either type of unlisted target. Furthermore, both small and big acquirers of unlisted targets achieve APERs that are significantly higher than those for small and big acquirers of listed targets. Clearly, the listing effect in acquirers' returns is not a size of buyer effect in disguise.

D. APERs and "liquidity" of the target's assets

Fuller et al (2002) conjecture that the significant announcement period excess returns to buyers of unlisted targets reflect a "liquidity discount." They do not test to determine whether the difference in excess returns to acquirers of listed and unlisted targets is correlated with any measure of liquidity nor do they explain why sellers of unlisted targets are willing to accept a lower price than sellers of listed targets. Furthermore, they offer no definition of what they mean by a liquidity discount. Thus, their conjecture provides little guidance as to how to construct a test as to whether a liquidity discount might be at work in announcement period returns to acquirers. The microstructure literature has wrestled mightily with the task of defining and measuring "liquidity" and seems to have settled on bid-ask spreads, trading volume, and price impacts as proxy measures of liquidity. Similar attention has not been devoted to measuring and defining "liquidity" for real assets. Nevertheless, Schlingemann, Stulz and Walkling (2002) have reported some success using aggregate dollar volume of "deals" for an asset class as a proxy measure of asset liquidity. We follow their lead.

In general, we compute our index as the total market value of intercorporate transactions during a specific time interval in a particular asset category divided by the total dollar value of assets in that category. More specifically, for a given acquisition in our sample, the numerator of this index is the worldwide aggregate value of corporate "control" transactions that took place in the target's 3-digit SIC industry classification over the interval beginning three months prior to and ending the month of the announcement of the acquisition in question. This calculation excludes the acquisition being considered.

In constructing the liquidity index, control transactions include leveraged buyouts, intercorporate tender offers, spinoffs of subsidiaries, purchases of minority stakes (i.e., toehold acquisitions), acquisitions of remaining interests, going private transactions, and equity carveouts. We exclude intrafirm exchange offers and share repurchases. The data for these transactions are taken from the *SDC PlatinumTM Worldwide Mergers and Acquisitions Database*. The denominator of the liquidity index is the aggregate worldwide market value of equity of publicly-traded stocks in the same three-digit SIC industry as the target. This value is measured as of the beginning of the calendar year in which the acquisition is announced. In one instance, the index is a small negative number. In that case, we set the index equal to zero. In 90 cases, the value of the index is greater than 1.0. In those cases, we set the value of the index to 1.0.⁶ The mean and median level of the liquidity index for the various categories of acquirers is given in the second row in Panel B of Table IV. We classify a target as having low "liquidity" when the liquidity index for its industry is below the median of the index for our sample of targets for the calendar year in which the acquisition was announced. All other targets are classified as having high "liquidity".

The APERs according to the liquidity of the target are given in Panel E of Table III. The mean APERs for acquirers of both high and low liquidity listed targets are small and not significantly different from zero; the mean APERs for acquirers of both high and low liquidity unlisted stand-alone targets are positive and significantly greater than zero; and the mean APERs of acquirers of both high and low liquidity subsidiary targets are positive and significantly greater than zero. Additionally, the mean APERs of acquirers of both types of high and low liquidity unlisted targets are significantly greater than the mean APER for acquirers of high and low liquidity listed targets. Thus, these tests indicate that the listing effect is not just a liquidity effect.

E. Dollar values of APERs

Malatesta (1983), Dennis and McConnell (1986), and Moeller et al (2003) emphasize that the dollar values of gains or losses in acquisitions can give different inferences than equallyweighted returns. For example, acquirers may lose small amounts (in dollars) when buying most listed targets, but may more than make up for those losses when buying bigger listed targets. In that case, the mean dollar values of APERs may be significantly positive even though the equally-weighted mean return is small or negative. Contrarily, the opposite effect might be at

 $^{^{6}}$ Negative observations come about because of errors in *SDC* or *Worldscope*. It is possible, but unlikely that observations greater than 1.0 are legitimate. Thus, we set the index at 1.0. An alternative would be to exclude these

work in acquisitions of unlisted targets. It may be that buyers of unlisted targets gain when buying most targets, but lose when buying a few big targets.

To determine whether the dollar values of acquirer returns present a different picture than the equally-weighted APERs, we calculate the dollar value of the announcement period excess returns by multiplying each acquirer's APER by the market value of its equity five days prior to the acquisition announcement. We calculate the mean and median dollar values for each of the samples given in Tables II and III. In general, the dollar values of announcement period excess returns yield inferences similar to those given by the equally-weighted APERs of Tables II and III. We, thus, present and discuss only a few calculations.

As shown in Panel A of Table V, the mean dollar value of the announcement period excess returns for acquirers of listed targets is -\$108.0 million, although the median loss is substantially less at -\$0.7 million. There are, thus, some very large dollar value losers among buyers of listed targets.

For acquirers of unlisted targets, the mean dollar value of the announcement period returns of \$33.6 million is positive and statistically significantly greater than zero and statistically significantly greater than the mean dollar value return to acquirers of listed targets. As with acquirers of listed targets, the distribution of dollar announcement period returns is skewed except in the opposite direction. For buyers of unlisted targets, the median dollar value of announcement period returns is \$1.5 million which is also significantly greater than zero and significantly greater than the median dollar return for acquirers of listed targets. The story is very much the same when unlisted targets are split into stand-alone companies and subsidiaries. Thus, it is not the case that acquirers of listed targets lose a little on many transactions but make up those frequent small losses with a few "big hits." Similarly, it is not the case that acquirers of

observations.

unlisted targets earn a little on many transactions and lose big on a few deals. Thus, the dollar values of the announcement returns do not overturn the implications based on equally-weighted returns.

Also in Panel A of Table V, we split the sample into U.K. acquirers and non-U.K. acquirers. For U.K. buyers of listed targets, the mean dollar value of announcement period excess returns is -\$81.3 million; for non-U.K. acquirers, the mean dollar value of the announcement period excess return is similarly negative at -\$132.3 million. The mean and median dollar value of announcement period returns for unlisted targets combined and for standalone and subsidiary targets separately are positive and greater than their corresponding levels for listed targets. Thus, the dollar value announcement period excess returns tell the same story as the equally-weighted returns and the dollar value returns tell the same story for U.K. acquirers and for non-U.K. European acquirers. Announcement period dollar value returns are higher for buyers of unlisted targets than for buyers of listed targets.

Panel B of Table V, gives the dollar value of announcement period excess returns according to our definitions of big and small acquirers. The mean dollar value announcement period return for big acquirers of listed targets is (big and negative) -\$176.3 million; the mean dollar value announcement period return for small acquirers of listed targets is actually a small positive number. This result hints that the listing effect may be a size effect. But, the dollar value returns to acquirers of unlisted companies reverses that hint. The mean dollar value announcement period return for big acquirers of unlisted targets is (also big but positive) \$66.4 million, while the mean dollar value announcement period excess return for small acquirers of unlisted targets is \$3.6 million. Additionally, regardless of whether they are big or small,

acquirers of unlisted targets earn significantly higher dollar value announcement period excess returns than do buyers of listed targets.

Finally, in Panel C of Table IV, we consider dollar value excess returns according to method of payment. The results are straightforward: regardless of method of payment, the mean dollar value of announcement period excess returns is negative for acquirers of listed targets and positive for acquirers of unlisted targets.

F. Overpayment for listed targets as part of a portfolio

As we noted, Hansen and Lott (1996) propose that the listing effect comes about because diversified shareholders of acquirers do not care whether managers 'overpay' for shares of listed targets because the shares of those targets will be part of their diversified portfolios. The same shareholders will, however, demand that managers not overpay for unlisted targets because shares of such targets cannot be part of their portfolios by virtue of the fact that they are not publicly-traded. If that were the explanation of the listing effect, by logical extension, shareholders also would not care whether managers overpaid for subsidiaries of listed companies. In our sample, 95% of the parents of the acquired subsidiaries are publicly-traded. Thus, the significant positive average APER for acquirers of subsidiaries is inconsistent with the Hansen and Lott argument. Their reasoning seems an unlikely explanation of the listing effect in acquirers' announcement period stock returns.

IV. Multivariate tests

Our univariate tests appear to demonstrate that the listing effect in acquirers' announcement period excess returns that has been documented in the U.S. is widespread and not merely a manifestation of some peculiarity of U.S. markets. It also appears to be "real" and not

merely camouflage for some other factor that influences acquirers' returns. We now turn to multivariate tests to determine whether the listing effect persists when we put it to the stiffer challenge of standing up to a panel of independent variables.

A. Set up

The dependent variable in our regressions is the 5-day APER. As independent variables, we include an indicator for whether the acquirer is domiciled in the U.K. (1) or not (0), the log of the market value of the bidder's common stock five days prior to the announcement, an indicator when payment was made in stock (1) or not (0), an indicator when payment was a combination of stock and cash (1) or not (0),⁷ and an indicator for whether a blockholder was created in the acquirer (1) or not (0). These are the variables considered in our univariate tests.

We also include as control variables factors shown to be correlated with acquirers' announcement period excess returns in other studies. Kang (1993) reports that Japanese acquirers earn positive and significant announcement period returns when they acquire U.S. targets, but a matching set of U.S. acquirers who also acquire U.S. targets earn zero or mildly negative announcement period excess returns. His results suggest that cross-border transactions may have greater value to acquirers than domestic acquisitions. For Canadian acquirers in comparison with U.S. acquirers, Eckbo and Thorburn (2000) report the opposite result - - Canadian acquirers of Canadian targets earn higher returns than do U.S. acquirers of Canadian targets. It is possible that the listing effect in acquirer returns is actually a "cross-border" effect. It may be, for example, that unlisted targets tend to be cross-border acquisitions and listed targets tend to be within-border acquisitions, or vice versa. As shown in the fourth row of Panel A of Table IV, approximately 50% of acquisitions of listed and unlisted acquisitions are cross-border

⁷ These two indicator variables capture the "method of payment" effect. The omitted variable is "cash" payment.

transactions so this factor appears to be an unlikely candidate to explain the listing effect. Nevertheless, to account for a possible cross-border effect in acquirers' returns, we include an indicator variable equal to 1 if the bidder and the target are incorporated in different countries (and 0 otherwise).

Malatesta (1983), Schipper and Thompson (1983), Malatesta and Thompson (1985), and Loderer and Martin (1990) report an "order" effect in bidder returns in which initial acquisitions by U.S. firms are associated with larger and more significant APERs than subsequent acquisitions. Asquith, Bruner and Mullins (1983) and Fuller et al. (2002) find no order effect. It is possible that unlisted targets tend to be the acquirers' initial targets and listed targets only occur after one or more unlisted target acquisitions. To capture the order effect, we classify an acquisition as an acquirer's initial acquisition if the acquirer has not announced any other acquisitions during the two years prior to the acquisition in our sample. As shown in the fifth row of Panel A of Table IV, approximately 19% of listed target acquisitions are classified as initial acquisitions and about 17% of unlisted acquisitions are classified as initial acquisitions. We use an indicator to identify whether an acquisition is an initial acquisition (1) or not (0).

For U.S. acquirers, Lang, Stulz and Walkling (1989, 1991) and Servaes (1991) report that acquirers' announcement period excess returns are higher when the acquirer's Tobin's Q is higher. It could be that acquirers of unlisted targets tend to have higher Tobin's Qs than acquirers of listed targets. We calculate the acquirer's Q ratio as the market value of the acquirer's equity as of the calendar year-end prior to the announcement plus the book value of debt and preferred stock from the most recent financial statement prior to the acquisition announcement divided by the sum of the book value of equity, debt and preferred stock as of the

same date. The mean and median values of the acquirer's estimated Q ratio are given in the third row of Panel B of Table IV.

Maquieira, Megginson, and Nail (1990) report that acquirers' excess returns are higher in within-industry (i.e., non-diversifying) acquisitions. It could be that unlisted targets tend to be from the same industry as the acquirer. If so, the listing effect might really be a cross-industry effect. We consider a transaction to be a within-industry acquisition if the bidder and the target have the same three-digit SIC code. As shown in the sixth row of Panel A of Table IV, within-industry acquisitions comprise 41% of listed acquisitions and 34% of unlisted acquisitions. To control for whether the acquisition is within the same industry, we include an indicator variable equal to 1 when the target and the bidder have the same three-digit SIC code (and 0 otherwise).

For U.S. acquirers, Asquith, Bruner, and Mullins (1983), Jarrell and Poulsen (1989), Servaes (1991) and others report that the size of the target relative to the size of the acquirer is positively correlated with the acquirer's announcement period return. Franks and Harris (1989), Eckbo and Thorburn (2000), and Bae, Kang, and Kim (2002) report similar results for the U.K., Canada, and Korea, respectively. It is possible that acquirers of unlisted targets are larger in comparison with their targets than are acquirers of listed targets. If so, it could be that the listing effect is actually a relative size effect. We calculate relative size as the total amount paid for the target less the amount of any liabilities assumed or paid off by the acquirer divided by the market value of the acquirer as of the calendar year-end prior to the announcement. The mean and median of the relative size variable for the various categories of acquisitions is given in the fourth row Panel B of Table IV.

B. Regression results

The first regression includes an indicator variable for whether the target was a standalone company (1) or not (0) and an indicator for whether the target was a subsidiary (1) or not (0). The regression also includes each of the independent variables described above. The results of this regression are given in the first column of Table VI.

The coefficient of the market value of the equity of the acquirer is negative and significant. Consistent with results from Moeller et al (2003), bigger bidders appear to be worse bidders in Europe as well as in the U.S. Further, after adjusting for other factors, the coefficient of the U.K. indicator variable is negative and significant: in a multivariate context U.K. acquirers' achieve lower announcement period excess returns than acquirers from other European countries.

More importantly, for the purposes of this investigation, the listing effect is robust to the inclusion of a slew of independent variables in a multivariate analysis. The coefficients of both the unlisted stand-alone company indicator variable and the unlisted subsidiary indicator variable are positive and highly statistically significant (p-values < 0.01). Further, their magnitudes are such that they imply that the acquisition of an unlisted entity adds about 1.3% to the total market value of the acquiring company after taking into account other factors that have been shown to explain announcement period excess returns in corporate acquisitions.

The second regression in Table VI is the same as the first except that we exclude the method of payment variables. We do so because method of payment and blockholder creation appear to be highly correlated. By dropping the method of payment, we allow the blockholder variable a greater chance of entering the regression significantly. As the results in the second column indicate, the coefficient of the blockholder variable is positive, but it is still not statistically significant (the p-value is greater than 0.05). The indicator variables for unlisted

stand-alone targets and subsidiary targets are still significant (at the 0.01 level or better) as are the acquirer size variable and the U.K. indicator variable.

We also estimate separate regressions for acquirers of listed targets, unlisted stand-alone targets, and unlisted subsidiaries. We include the same independent variables as in the first two regressions except that we enter the method of payment variable in the first regression in each pair and the blockholder creation indicator variable in the second regression in each pair. The coefficients of these regressions are given in the remaining columns of Table VI. Several results are worth mentioning. First, the coefficient of the U.K. indicator variable has the same sign and magnitude in each regression as in the full sample regression, but is not significant in any of the subsample regressions. Second, the coefficient of the all-stock transaction variable is negative and significant for acquirers of listed targets and positive and significant for acquirers of unlisted targets. This result is consistent with studies using U.S. data. Third, as with the method of payment variable, the blockholder creation variable has opposite signs for acquirers of listed and unlisted targets. For listed targets, the creation of a blockholder is associated with a lower excess return. For unlisted stand-alone targets and for subsidiaries, the sign is positive indicating that creation of a blockholder is associated with a higher excess return for the acquirer. Whether this factor is really a method of payment or a blockholder creation variable awaits further analysis. Finally, for acquirers of listed targets, the size of the acquirer is no longer significant, but it is significant for acquirers of unlisted targets. We present these results to complete our analysis and for symmetry with U.S. studies that have examined announcement period returns separately for listed and unlisted targets. Our primary interest is in whether the differential in announcement period returns for listed and unlisted targets that has been documented for U.S. acquisitions persists elsewhere. The answer is a resounding yes. The downside is that our

analysis does not identify what the fundamental factors are that give rise to the listing effect in the wealth creation of corporate acquirers.

C. Tests of robustness

As is the case with most empirical studies, implementation of our tests required that we make decisions regarding the data and sample as we progressed. In this section, we examine the sensitivity of our results to alternative choices.

To begin, we re-calculated APERs over the interval from 5 days before through 5 days after the announcement date and over the interval from one day before through one day after the announcement date. The mean APERs over the two intervals are -0.20% (p-value = 0.62) and -0.27% (p-value = 0.32) for listed targets, and 1.78% (p-value < 0.001) and 1.29% (p-value < 0.001) for unlisted targets. Importantly, for both intervals, the mean APERs for unlisted targets are significantly higher than the mean APERs for listed targets. With these APERs, we re-estimated the first two regressions in Table VI. In each of the four regressions, the p-values of the coefficients of the stand-alone indicator and the subsidiary indicator are all less than 0.03 and most are less than 0.01.⁸ Thus, in a multivariate analysis, the returns to acquirers of unlisted targets.

We then evaluated the sensitivity of the results to alternative specifications of certain of the independent variables. First, we re-estimated the regressions using the logarithm of the acquirer's book value of the acquirer's assets as the measure of acquirer size. The coefficients of the stand-alone indicator and the subsidiary indicator continue to have p–values of less than 0.01, as does the size of the acquirer. Second, we estimated the regressions using the cut-off of 10% share ownership and 20% share ownership to identify whether a new blockholder was created in

the acquirer's ownership structure. With these specifications, the p-values of the blockholder creation indicator variable comes close to significance with p-values of 0.14 and 0.08. Still, blockholder creation does not drive out the listing effect as the p-values of the coefficients of stand-alone indicator and the subsidiary indicator are still less than 0.01. Third, we aggregate deals wholly financed with stocks and those financed partially with stock to comprise a new method of payment variable. This method of payment variable is still not significant for the whole sample, while the p-values of the coefficients of stand-alone indicator are still less than 0.01.

We then turn to some alternative specifications for liquidity. First, we measure liquidity as we did before except we used the six (rather than three) month interval prior to the acquisition announcement. The liquidity index is still not significant at conventional levels (p-value=0.14), while the coefficients of stand-alone indicator and the subsidiary indicator continue to have pvalues less than 0.01. We then define liquidity as the worldwide value of corporate control transactions that took place in the target's 3-digit SIC industry classification over the interval beginning three (six) months prior to and ending the month of the announcement of the acquisition in question, excluding the acquisition being considered, without normalizing for the size of the industry these specifications. The liquidity variable comes close to significance at both the three and six month intervals with p-values of 0.10 and 0.08. But even here, the liquidity index does not drive out the unlisted stand-alone target indicator variable and the unlisted subsidiary indicator variable which continue to have p-values less than 0.01.

V. Conclusion

⁸ The coefficients of the size of the acquirer are also always negative and significant and the relative size of the target to the size of the acquirer is negative and significant in each regression, but the U.K indicator loses

This study investigates the wealth created for shareholders around announcements of acquisitions by acquirers of listed and unlisted targets in 17 Western European countries over the period 1996 through 2001. As in the U.S., acquirers of listed companies earn zero or slightly negative average announcement period excess returns, whereas acquirers of unlisted targets earn positive and significant average announcement period excess returns. Furthermore, the wealth increase associated with acquisitions of unlisted targets is significantly greater than the wealth increase associated with listed targets and this differential is pervasive. It persists across countries and through time. In cross-sectional regressions in which announcement period excess returns are the dependent variable, the listing effect is robust to inclusion of a variety of variables including size of the acquirer, the method of payment for the target (cash, stock or a combination), whether the acquisition created a blockholder in the acquiring company, a measure of the "liquidity" of the target company's assets, the acquirer's Tobin's Q ratio, the relative size of the target and bidder firms, whether the acquisition was a cross-border deal, whether the bidder and the target were in the same industry, and whether the acquisition was the bidder's "initial" acquisition.

Presumably the listing effect in acquirers' stock returns is a manifestation of some economic phenomenon that our various proxy variables have failed to capture. Further investigation will be required to identify what that fundamental factor is or those fundamental factors are. In the meantime, managers who are evaluating alternative acquisitions may wish to take into account the listing status of target companies.

significance in some cases.

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| Country: | Data sources: |
|----------------|---|
| Argentina | Worldscope |
| Australia | Australian Stock Exchange, "ASX all Ordinary Index. Company Handbook", Sydney, |
| | N.S.W. and http://www.companies.govt.nz/search/cad/dbssiten.main |
| Austria | Wiener Börse, "Yearbook", Österreichische Vereinigung für Finanzanalyse, Wien |
| Belgium | Banque Bruxelles Lambert, "Actionnariat des Sociétés Belges cotées à Bruxelles", |
| | Département Etudes et Stratégie. |
| Bermuda | Worldscope |
| Brazil | São Paulo Stock Exchange, "Brazil company handbook" |
| Canada | The Financial Post, "Survey of Industrials"; company web sites from: |
| CI '1 | http://www.tse.com/, and Worldscope |
| Chile | Worldscope |
| Colombia | Worldscope |
| Czech Republic | File purchased from the Securities Center of the Czech Republic |
| Denmark | Worldscope |
| Egypt | worldscope |
| Estonia | <u>http://www.tse.ee/englisn/</u> |
| Finiand | The Hereld Tribune "French Company Handback" SDE Daria Douraci |
| Flance | http://www.bourse.de.paris.fr/fr/index_fs.htm?nc=2∋=6&nom=marche: |
| | web sites from: http://www.europext.com/fr/ |
| Germany | Commerzhank "Wer gehört zu Wem": Bundesaufsichtsamt für den |
| Germany | Wertnanierhandel "Major Holdings of Voting Rights in Officially Listed Companies" |
| Greece | Worldscope |
| Hungary | Worldscope |
| Indonesia | Asian Company Handbook |
| Ireland-Rep | London Stock Exchange. "The London Stock Exchange Yearbook": |
| p | http://www.hemscott.co.uk/equities/ |
| Italy | http://www.consob.it/ |
| Japan | Toyo Keizai Shanposha, "Japan Company Handbook", Tokyo, Japan |
| Lithuania | Worldscope |
| Luxembourg | Worldscope |
| Malaysia | Asian Company Handbook |
| Mexico | Worldscope |
| Monaco | Worldscope |
| Morocco | Worldscope |
| New Zealand | Datex, "New Zealand Directory of Shareholders" (<u>http://www.datex.co.nz/</u>) |
| Norway | http://www.huginonline.com/; company web sites from: http://www.ose.no/english/ |
| Philippines | Asian Company Handbook; Philippine Stock Exchange |
| Poland | Komisja Papierów Wartościowych i Gield, Ownership of Polish listed firms |
| Portugal | Bolsa de Valores de Lisboa e Porto, "Sociedades Cotadas", CD-Rom |
| Romania | http://www.bvb.ro/; Worldscope |
| Russian Fed | Worldscope |
| Singapore | Asian Company Handbook |
| Slovak Repub. | Worldscope |
| Slovenia | http://www.ljse.si/; Worldscope |
| South Africa | worldscope |
| South Korea | Asian Company Handbook |

Appendix A. Data sources for targets' ownership structure

| Spain | Comision | Naciona | ıl del | Mercade | o de | Valores, | "Particip | aciones sign | ificativas en | | |
|----------------|------------|------------------------|-----------------|------------------|--------|--------------|-----------|--------------|---------------|--|--|
| | sociedade | s cotizada | as"; <u>htt</u> | <u>o://www</u> . | cnmv | v.es/english | /cnmve.h | <u>ıtm</u> | | | |
| Sweden | http://www | w.hugino | nline.co | <u>om/</u> | | | | | | | |
| Switzerland | Union Ba | nk of Swi | tzerlan | d, "Swis | s Stoc | k Guide," | Zurich | | | | |
| Thailand | Asian Cor | Asian Company Handbook | | | | | | | | | |
| United Kingdom | London | Stock | Excha | nge, " | The | London | Stock | Exchange | Yearbook"; | | |
| C | http://www | w.hemsco | ott.co.ul | k/equitie | s/ | | | C | | | |
| United States | http://ww | w.sec.gov | /cgi-bi | n/srch-ec | lgar/ | | | | | | |

Table I. Distribution of acquisitions by home country of the acquirer and announcement year

The sample consists of acquisitions by 4,429 bidders from 17 European countries. Acquisitions are listed by year of announcement according to *SDC PlatinumTM Worldwide Mergers and Acquisitions Database*. Only successful control acquisitions valued at US \$5 million or more are included.

| | | | | 5 | | | |
|--------------------------|------|----------|------|----------|----------|----------|----------|
| Home country of acquirer | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | All |
| Austria | 0 | 1 | 2 | 0 | 2 | 2 | 19 |
| Relaium | 03 | 1 | 16 | 17 | 20 | 10 | 10 |
| Denmark | 3 | 4 | 10 | 17 | 20 | 10 | 70 64 |
| Finland | 5 | 8 | 15 | 17 | 30 | 10 | 88 |
| France | 21 | 40 | 37 | 10 62 | 83 | 14 | 287 |
| Germany | 12 | 40 20 | 30 | 22 | 51 | 26 | 183 |
| Grazza | 13 | 20 | 30 | 2 | 51 | 50 10 | 105 |
| Ireland | 0 | 1 16 | 2 | 24 | 4 | 10 | 122 |
| | 17 | 10 | 22 | 24 | 55 52 | 11 | 125 |
| Italy Notherstein de | 0 | 12 | 30 | 28 | 55 | 33 24 | 104 |
| Netherlands | 12 | 21 | 32 | 44 | 45 | 24 | 1/8 |
| Norway | 15 | 14 | 21 | 10 | 11 | 12 | 83 |
| Portugal | 1 | 1 | 5 | 3 | 11 | 2 | 23 |
| Spain | 7 | 15 | 22 | 31 | 33 | 11 | 119 |
| Sweden | 18 | 26 | 17 | 51 | 48 | 25 | 185 |
| Switzerland | 9 | 7 | 11 | 12 | 17 | 13 | 69 |
| Turkey | 0 | 1 | 1 | 0 | 1 | 1 | 4 |
| United Kingdom | 327 | 438 | 552 | 544 | 547 | 342 | 2750 |
| All countries | 457 | 631 | 823 | 904 | 1011 | 603 | 4429 |

Announcement year

Table II. Acquirers' announcement period excess returns (APER) in percent by year and listing status of the target

Acquirers' five-day percentage APERs and associated statistics. The APER for each acquisition is calculated by summing the difference between the acquirer's stock return and the return of the *Datastream* stock market index of the acquirer's home country over the interval beginning two days prior to the announcement of the acquisition and ending two days after the announcement. Columns (1) and (2) give data for acquisitions of listed and unlisted targets, respectively. Column (4) gives data for unlisted standalone targets and column (6) gives data for unlisted subsidiary targets. The top number for each group is the acquirer's mean percentage APER, the second number is the acquirer's median percentage APER, the third number of observations. a = significant at 0.01, b = significant at 0.05. Significance for means is based on the t-test. Significance for medians is based on the signed-ranks test. Columns (3), (5) and (7) show, respectively, differences between the means and medians for columns (2) and (1), (3) and (1), and (4) and (1). Significance for differences between means is based on the t-test. Significance for differences between medians is based on the Mann-Whitney test.

| Year of acquisition | Listed targets (1) | All unlisted targets (2) | Difference col (2) - col (1) (3) | Unlisted stand-alone targets (4) | Difference col (4) - col (1) (5) | Unlisted subsidiary targets (6) | Difference col (6) - col (1) (7) |
|---------------------|--------------------------|-----------------------------------|--|---|--|--|--|
| All years | -0.38 | 1 48 ^a | 1.86 ^{<i>a</i>} | 1 51 ^a | 1 90 ^a | 1 <i>1 1 1 a</i> | 1 82 ^a |
| All years | -0.38 | 0.64^{a} | 1.03^{a} | 0.58^{a} | 0.98^{a} | 0.66^{a} | 1.02^{a} |
| | 735 | 3694 | 1.05 | 1956 | 0.90 | 1738 | 1.00 |
| 1996 | 0.78 | 1.32 ^{<i>a</i>} | 0.54 | 1.22 ^{<i>a</i>} | 0.45 | 1.42 ^{<i>a</i>} | 0.64 |
| | -0.14 | 0.74 ^{<i>a</i>} | 0.88 | 0.76 ^{<i>a</i>} | 0.90 | 0.71 ^a | 0.85 |
| | 71 | 386 | | 200 | | 186 | |
| 1997 | -0.37 | 1.11 ^a | 1.47 ^{<i>a</i>} | 1.22 ^{<i>a</i>} | 1.59 ^{<i>a</i>} | 0.97 ^{<i>a</i>} | 1.34 ^b |
| | -0.55 | 0.33 ^a | 0.89 ^b | 0.45 ^a | 1.00 ^{<i>a</i>} | 0.05 | 0.61 |
| | 103 | 528 | | 283 | | 245 | |
| 1998 | -0.33 | 1.40 ^{<i>a</i>} | 1.73 ^{<i>a</i>} | 1.03 ^{<i>a</i>} | 1.35 ^b | 1.82 ^{<i>a</i>} | 2.15 ^{<i>a</i>} |
| | -0.45 | 0.71 ^a | 1.15 ^a | 0.51 ^a | 0.95 ^b | 0.81 ^a | 1.25 ^{<i>a</i>} |
| | 122 | 701 | | 370 | | 331 | |
| 1999 | 0.53 | 2.28 ^{<i>a</i>} | 1.74 ^{<i>a</i>} | 2.29 ^{<i>a</i>} | 1.76 ^{<i>a</i>} | 2.26 ^{<i>a</i>} | 1.72 ^b |
| | 0.15 | 1.17 ^{<i>a</i>} | 1.01 ^b | 0.93 ^a | 0.77 | 1.51 ^a | 1.36 ^{<i>a</i>} |
| | 180 | 724 | | 383 | | 341 | |
| 2000 | -1.36 | 1.21 ^{<i>a</i>} | 2.57 ^a | 1.53 ^{<i>a</i>} | 2.89 ^{<i>a</i>} | 0.82 ^b | 2.19 ^{<i>a</i>} |
| | -1.17 ^b | 0.48 ^a | 1.65 ^{<i>a</i>} | 0.49 ^{<i>a</i>} | 1.66 ^{<i>a</i>} | 0.47 ^b | 1.64 ^{<i>a</i>} |
| | 175 | 836 | | 454 | | 382 | |
| 2001 | -1.40 | 1.40 ^{<i>a</i>} | 2.80 ^{<i>a</i>} | 1.55 ^b | 2.95 ^b | 1.24 ^{<i>a</i>} | 2.64 ^b |
| | -0.68 | 0.56 ^a | 1.25 | 0.53 ^b | 1.22 | 0.61 ^b | 1.29 |
| | 84 | 519 | | 266 | | 253 | |
| | | | | | | | |

Table III. Acquirers' announcement period excess returns (APER) in percent by characteristics of acquirer, deal, target and listing status of the target

Acquirers' five-day percentage APERs and associated statistics. The APER for each acquisition is calculated by summing the difference between the acquirer's stock return and the return of the *Datastream* stock market index of the acquirer's home country over the interval beginning two days prior to the announcement of the acquisition and ending two days after the announcement. Columns (1) and (2) give data for acquisitions of listed and unlisted targets, respectively. Column (4) gives data for unlisted standalone targets and column (6) gives data for unlisted subsidiary targets. The top number for each group is the acquirer's mean percentage APER, the second number is the acquirer's median percentage APER, the third number of observations. a = significant at 0.01, b = significant at 0.05. Significance for means is based on the t-test. Significance for medians is based on the signed-ranks test. Columns (3), (5) and (7) show, respectively, differences between the means and medians for columns (2) and (1), (3) and (1), and (4) and (1). Significance for differences between means is based on the t-test. Significance for differences between medians is based on the Mann-Whitney test.

| | | All | | Unlisted | | Unlisted | |
|-------------|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | Listed | unlisted | Difference | stand-alone | Difference | subsidiary | Difference |
| | (1) | (2) | col(2) - col(1) | (4) | col(4) - col(1) | targets (6) | col(6) - col(1) (7) |
| | (1) | (2) | (5) | (+) | (5) | (0) | (\prime) |
| | | | Panel A: By home | country of acqu | uirer | | |
| All non-UK | 0.28 | 1.75 ^{<i>a</i>} | 1.47 ^{<i>a</i>} | 1.8 ^{<i>a</i>} | 1.52 ^{<i>a</i>} | 1.71 ^a | 1.42 ^{<i>a</i>} |
| | 0.02 | 0.79 ^{<i>a</i>} | 0.78 ^{<i>a</i>} | 0.89 ^{<i>a</i>} | 0.87 ^a | 0.76 ^{<i>a</i>} | 0.74 ^a |
| | 385 | 1294 | | 562 | | 732 | |
| UK | -1.12 ^b | 1.33 ^{<i>a</i>} | 2.45 ^{<i>a</i>} | 1.39 ^{<i>a</i>} | 2.51 ^{<i>a</i>} | 1.25 ^a | 2.37 ^a |
| | -1.03 ^b | 0.57 ^{<i>a</i>} | 1.60 ^{<i>a</i>} | 0.53 ^{<i>a</i>} | 1.56 ^{<i>a</i>} | 0.64 ^{<i>a</i>} | 1.67 ^{<i>a</i>} |
| | 350 | 2400 | | 1394 | | 1006 | |
| France | -1.18 | 0.66 | 1.84 ^b | 0.37 | 1.55 | 0.84 | 2 02 ^b |
| Tranec | -1.18 | 0.00 | 1.84 | -0.16 | 1.55 | 0.39 | 1.98^{b} |
| | 76 | 211 | 1.70 | 80 | 1 | 131 | 1.90 |
| 0 | 2.14 | 1 41 h | 2.55.4 | 1.(1 | 2 75 ^k | 1 22 ^k | 2 45 h |
| Germany | -2.14 | 1.41 ° | 3.55 " | 1.61 | 3.75° | 1.32 ° | 3.45 ° |
| | -0.55 | 0.78 | 1.32 | 0.59 | 1.13 | 0.78 | 1.32 |
| | 39 | 144 | | 40 | | 90 | |
| Italy | 0.88 | 2.06 ^{<i>a</i>} | 1.18 | 3.70 ^b | 2.82 | 0.68 | -0.20 |
| | 0.96 | 0.90 ^b | -0.06 | 1.90 ^b | 0.94 | 0.53 | -0.43 |
| | 33 | 131 | | 60 | | 71 | |
| Netherlands | -0.01 | 2.59 ^a | 2.59 ^{<i>a</i>} | 1.84 | 1.84 | 2.93 ^a | 2.94 ^{<i>a</i>} |
| | -0.49 | 1.47 ^a | 1.96 ^b | 1.28 ^b | 1.76 | 1.96 ^{<i>a</i>} | 2.45 ^b |
| | 58 | 120 | | 38 | | 82 | |
| Sweden | 1 33 | 2 56 ^a | 1 23 | 3 62 ^b | 2 29 | 1 69 ^b | 0.36 |
| Sweden | 0.97 | 1.70^{a} | 0.73 | 1.80^{a} | 0.83 | 1.56^{b} | 0.59 |
| | 43 | 142 | | 64 | | 78 | |
| A 11 - 41 | 1 4 4 b | 1 70 4 | 0.25 | 1 4 1 0 | 0.02 | 215^{a} | 0.72 |
| All other | 1.44 | $1./8^{-a}$ | 0.35 | 1.41^{a} | -0.03 | 2.15^{a} | 0.12 |
| | 136 | 546 | -0.03 | 272 | -0.21 | 274 | 0.15 |
| | | | | | | | |

Table III continued

| | Listed targets | All unlisted targets | Difference col (2) - col (1) | Unlisted stand-alone targets | Difference col (4) - col (1) | Unlisted subsidiary targets | Difference col (6) - col (1) |
|----------|--------------------|----------------------------|---------------------------------|------------------------------------|---------------------------------|-----------------------------------|---------------------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| | | | Panel B: By me | ethod of paymen | ıt | | |
| Cash | 0.30 | 1.17 ^{<i>a</i>} | 0.86 ^{<i>a</i>} | 1.15 ^{<i>a</i>} | 0.85 ^b | 1.18 ^{<i>a</i>} | 0.88 ^{<i>a</i>} |
| | 0.01 | 0.53 ^a | 0.52 ^a | 0.39 ^{<i>a</i>} | 0.38 ^a | 0.62 ^a | 0.62 ^{<i>a</i>} |
| | 436 | 2876 | | 1353 | | 1523 | |
| Stock | -1.81 ^b | 3.90 ^{<i>a</i>} | 5.72 ^{<i>a</i>} | 4.07 ^a | 5.88 ^a | 3.55 ^b | 5.36 ^{<i>a</i>} |
| | -1.36 ^a | 1.47 ^{<i>a</i>} | 2.83 ^{<i>a</i>} | 1.32 ^{<i>a</i>} | 2.68 ^{<i>a</i>} | 1.61 ^b | 2.97 ^{<i>a</i>} |
| | 189 | 201 | | 138 | | 63 | |
| Mixed | -0.66 | 2 14 ^{<i>a</i>} | 2.81 ^{<i>a</i>} | 1 80 ^{<i>a</i>} | 2 46 ^b | 3 18 ^{<i>a</i>} | 3 85 ^{<i>a</i>} |
| i inited | -0.71 | 1.12^{a} | 1.83^{a} | 1.04^{a} | 1.75 ^a | 1.79^{a} | 2.50^{a} |
| | 110 | 617 | | 465 | | 152 | |
| | | | Panel C: By blo | ckholder creatio | n | | |
| Nama | 0.27 | 1 21 4 | 0.95 ^a | 1 22 ^a | 0.85 % | 1 21 ^a | 0.95 a |
| None | 0.37 | 1.21 | 0.83 | 1.22 | 0.85 | 1.21 | 0.83 |
| | 552 | 3308 | 0.55 | 1703 | 0.47 | 1605 | 0.05 |
| | | | | | | | |
| At 5% | -1.80 | 3.73 ^a | 5.52 ^a | 3.49 ^{<i>a</i>} | 5.29 ^a | 4.17 ^a | 5.97 ^a |
| | -1.85 | 1.58 ^{<i>a</i>} | 3.43 ^{<i>a</i>} | 1.57 ^a | 3.43 ^{<i>a</i>} | 1.61 ^{<i>a</i>} | 3.47 ^{<i>a</i>} |
| | 78 | 386 | | 253 | | 133 | |
| | | Panel D: By | v size of acquirer (i.e. | market value of | f acquirer's equity) | | |
| | 0.50 | 1.00 4 | | 1.05 | 2 5 5 4 | 1.05 | |
| Small | -0.58 | 1.93° | 2.51^{a} | 1.97^{a} | 2.55° | 1.87^{a} | 2.44° |
| | -0.24 | 1929 | 0.97 | 1169 | 0.97 | 760 | 0.98 |
| | 200 | 1/2/ | | 1107 | | ,00 | |
| Big | -0.26 | 0.98 ^a | 1.25 ^{<i>a</i>} | 0.82 ^{<i>a</i>} | 1.09 ^{<i>a</i>} | 1.11 ^a | 1.37 ^{<i>a</i>} |
| | -0.45 | 0.53 ^{<i>a</i>} | 0.97 ^a | 0.36 ^a | 0.81 a | 0.60 ^a | 1.04 ^{<i>a</i>} |
| | 452 | 1765 | | 787 | | 978 | |
| | | | | | | | |

Table III continued

| | Listed targets (1) | All unlisted targets (2) | Difference col (2) - col (1) (3) | Unlisted stand-alone targets (4) | Difference col (4) - col (1) (5) | Unlisted subsidiary targets (6) | Difference col (6) - col (1) (7) |
|------|--------------------------|-----------------------------------|--|---|--|--|--|
| | | | Panel E: By liquid | lity of target's as | sets | | |
| Low | 0.07 | 1.71 ^a | 1.64 ^{<i>a</i>} | 1.62 ^{<i>a</i>} | 1.55 ^{<i>a</i>} | 1.84 ^{<i>a</i>} | 1.77 ^{<i>a</i>} |
| | -0.15 | $0.77^{\ a}$ | 0.93 ^a | 0.49 ^{<i>a</i>} | 0.64 ^{<i>a</i>} | 1.11 ^a | 1.27 ^{<i>a</i>} |
| | 386 | 1781 | | 1007 | | 774 | |
| High | -0.87 | 1.27 ^{<i>a</i>} | 2.14 ^{<i>a</i>} | 1.41 ^a | 2.28 ^{<i>a</i>} | 1.13 ^{<i>a</i>} | 2.00 ^{<i>a</i>} |
| | -0.67 ^b | 0.56 ^a | 1.22 ^{<i>a</i>} | 0.65 ^{<i>a</i>} | 1.32 ^{<i>a</i>} | 0.49 ^{<i>a</i>} | 1.15 ^{<i>a</i>} |
| | 316 | 1854 | | 922 | | 932 | |
| | | | | | | | |

Table IV. Descriptive statistics for deal, acquirer and target companies by listing status of target

An acquisition is all-stock if only stock is used as payment for the target. An acquisition is all-cash if only cash is used as payment for the target. For listed targets, a blockholder is created if the value of stock payment to the target's largest shareholder exceeds 5% of the acquirer's market value. For unlisted targets, a blockholder is created if the total value of stock payment exceeds 5% of the acquirer's market value. An acquisition is classified as cross-border if the acquirer and the target are incorporated in different countries. An acquisition is classified as initial if the acquirer has not made any other acquisition announcements over the previous two years. An acquisition is classified as within-industry if the target has the same primary 3-digit SIC code as the acquirer. The acquirer's market capitalization is the market value of acquirer's common stock as of five days prior to the acquisition announcement. The liquidity index is computed as the worldwide aggregate market value of corporate control transactions that took place in the target's 3-digit SIC industry classification over the interval beginning three months prior to and ending the month of the announcement of the acquisition in question, excluding the acquisition being considered, divided by the aggregate worldwide market value of equity of publicly-traded stocks in the same 3-digit SIC industry as the target, measured as of the beginning of the calendar year in which the acquisition is announced. The Tobin's Q ratio is the market value of the acquirer's equity as of the calendar year-end prior to the announcement plus the book value of debt and preferred stock from the most recent financial statement prior to the acquisition announcement divided by the sum of the book value of equity, debt and preferred stock as of the same date. Target/acquirer relative market value is the total amount paid for the target less the amount of any liabilities assumed or paid by the acquirer divided by the market value of the acquirer as of the calendar year-end prior to the announcement.

| Variable | Li: tar | sted gets | ہ unl tar | All unlisted targets | | Unlisted stand-alone targets | | Unlisted subsidiary targets | |
|---|------------|--------------|-----------------|----------------------------|-------|------------------------------------|-------|-----------------------------------|--|
| | Panel A: | Binary var | iables | | | | | | |
| Fraction of all-stock acquisitions | 0.2 | 257 | 0.054 | | 0.071 | | 0.036 | | |
| Fraction of all-cash acquisitions | 0.: | 593 | 0. | 779 | 0. | 692 | 0.8 | 876 | |
| Fraction of acquisitions with blockholder created | 0. | 124 | 0.104 | | 0. | 129 | 0.077 | | |
| Fraction of cross-border acquisitions | 0.4 | 498 | 0.500 | | 0.492 | | 0.509 | | |
| Fraction classified as initial acquisition | 0.193 | | 0.167 | | 0.169 | | 0.165 | | |
| Fraction of within industry acquisitions | 0.4 | 407 | 0. | 0.337 0.339 | | 339 | 0.334 | | |
| Ι | Panel B: C | ontinuous v | ariables | | | | | | |
| | Mean | Median | Mean | Median | Mean | Median | Mean | Median | |
| Acquirer's market captalization (US \$ millions) | 8,879 | 1,428 | 4,505 | 555 | 3,220 | 407 | 5,950 | 846 | |
| Liquidity index | 0.051 | 0.028 | 0.063 | 0.032 | 0.058 | 0.030 | 0.069 | 0.035 | |
| Acquirer's Tobin's Q ratio | 2.40 | 1.46 | 2.63 | 1.66 | 3.11 | 1.87 | 2.08 | 1.44 | |
| Target/acquirer relative market value | 0.552 | 0.214 | 0.367 | 0.056 | 0.414 | 0.053 | 0.314 | 0.059 | |

Table V. Acquirers' announcement period excess returns (APER) in US millions of dollars by characteristics of acquirer, deal, target and listing status of the target

Dollar value of acquirers' five-day APERs (in millions US) and associated statistics. The dollar value of APER for each acquisition is calculated by summing the difference between the acquirer's stock return and the return of the *Datastream* stock market index of the acquirer's home country over the interval beginning two days prior to the announcement of the acquisition and ending two days after the announcement, and multiplying the result by the acquirer's market value of equity five days prior to the acquisition announcement. Columns (1) and (2) give data for acquisitions of listed and unlisted targets, respectively. Column (4) gives data for unlisted stand-alone targets and column (6) gives data for unlisted subsidiary targets. The top number for each group is the acquirer's mean percentage APER, the second number is the acquirer's median percentage APER, the third number is the number of observations. a = significant at 0.01, b = significant at 0.05. Significance for means is based on the t-test. Significance for medians is based on the signed-ranks test. Columns (3), (5) and (7) show, respectively, differences between the means and medians for columns (2) and (1), (3) and (1), and (4) and (1). Significance for differences between means is based on the t-test. Significance for differences between medians is based on the means and medians is based on the medians is based on the Mann-Whitney test.

| | Listed targets (1) | All unlisted targets (2) | Difference col (2) - col (1) (3) | Unlisted stand-alone targets (4) | Difference col (4) - col (1) (5) | Unlisted subsidiary targets (6) | Difference col (6) - col (1) (7) |
|---------------|--------------------------|-----------------------------------|--|---|--|--|--|
| | | | Panel A: By home | country of acqu | irer | | |
| All countries | -108.0 | 33.6 ^{<i>a</i>} | 141.6 ^{<i>a</i>} | 22.5 ^b | 130.5 ^b | 46.1 ^b | 154.1 ^{<i>a</i>} |
| | -0.7 | 1.5 ^{<i>a</i>} | 2.2 ^{<i>a</i>} | 1.2 ^{<i>a</i>} | 1.9 ^{<i>a</i>} | 2.1 ^a | 2.8 ^{<i>a</i>} |
| | 735 | 3694 | | 1956 | | 1738 | |
| non-UK | -132.3 | 61.7 ^b | 194.1 ^b | 37.8 | 170.1 ^b | 80.1 | 212.4 ^b |
| | 0.4 | 3.7 ^{<i>a</i>} | 3.3 ^{<i>a</i>} | 2.8 ^{<i>a</i>} | 2.5 ^b | 5.3 ^{<i>a</i>} | 4.9 ^{<i>a</i>} |
| | 385 | 1294 | | 562 | | 732 | |
| UK | -81.3 | 18.4 | 99.7 | 16.3 ^b | 97.6 | 21.3 | 102.6 |
| | -1.1 ^b | 0.9 ^{<i>a</i>} | 2.0^{a} | 0.7 ^{<i>a</i>} | 1.8 ^{<i>a</i>} | 1.2 ^{<i>a</i>} | 2.3 ^{<i>a</i>} |
| | 350 | 2400 | | 1394 | | 1006 | |
| | | | | | | | |

Panel B: By size of acquirer (i.e. market value of acquirer's equity)

| Small | 1.1 | 3.6 ^{<i>a</i>} | 2.5 ^b | 3.3 ^{<i>a</i>} | 2.2 | 4.0 ^{<i>a</i>} | 2.9^{t} |
|-------|--------------------|--------------------------|--------------------------|-------------------------|--------------------------|-------------------------|-----------|
| | -0.1 | 0.8 a | 0.9 ^{<i>a</i>} | 0.8 a | 0.8 a | 0.9 ^{<i>a</i>} | 0.9 |
| | 283 | 1929 | | 1169 | | 760 | |
| Big | -176.3 | 66.4 ^{<i>a</i>} | 242.7 ^a | 50.9 ^b | 227.3 ^a | 78.8 ^b | 255.1 |
| - | -16.7 ^b | 10.9 ^a | 27.6 ^{<i>a</i>} | 6.6 ^{<i>a</i>} | 23.2 ^{<i>a</i>} | 17.1 ^a | 33.8 |
| | 452 | 1765 | | 787 | | 978 | |

Table V continued

| | Listed targets (1) | All unlisted targets (2) | Difference col (2) - col (1) (3) | Unlisted stand-alone targets (4) | Difference col (4) - col (1) (5) | Unlisted subsidiary targets (6) | Difference col (6) - col (1) (7) |
|-------|--------------------------|-----------------------------------|--|---|--|--|--|
| | | | Panel C: By me | ethod of paymen | t | | |
| Cash | -38.5 | 23.7 | 62.2 | 15.3 | 53.9 | 31.1 | 69.6 |
| | 0.0 436 | 1.6 ^{<i>a</i>} 2876 | 1.6 ^{<i>a</i>} | 1.1 ^{<i>a</i>} 1353 | 1.1 ^b | 2.3 ^{<i>a</i>} 1523 | 2.2 ^{<i>a</i>} |
| Stock | -88.1 | 92.2 ^b | 180.3 | 113.6 ^b | 201.6 | 45.5 | 133.5 |
| ~~~~~ | -1.1 ^b | 2.4 ^{<i>a</i>} | 3.6 ^{<i>a</i>} | 2.3 ^{<i>a</i>} | 3.4 ^{<i>a</i>} | 7.4 ^{<i>a</i>} | 8.5 ^{<i>a</i>} |
| | 189 | 201 | | 138 | | 63 | |
| Mixed | -417.7 | 60.6 | 478.4 ^b | 16.2 | 433.9 | 196.5 | 614.3 ^b |
| | -0.9 | 1.1 ^a | 2.0 ^b | 1.1 ^a | 2.0 | 1.2 ^{<i>a</i>} | 2.2 ^b |
| | 110 | 617 | | 465 | | 152 | |

Table VI. Regressions explaining acquirers' announcement period excess returns (APER)

The dependent variable is the acquirer's five-day percentage APER. "Stand-alone target" and "subsidiary target" are dummy variables that take the value of one for acquisitions of unlisted stand-alone companies and unlisted subsidiaries, respectively. "Allstock acquisition" is a dummy variable that takes the value of one if only stock is used as payment. "Cash-and-stock acquisition" is a dummy variable that takes the value of one if both cash and stock are used as payment. "Blockholder created" is a dummy variable that takes the value of one if the value of stock payment to a listed target's largest shareholder exceeds 5% of the bidder's market value, or if the total value of stock payment to an unlisted target exceeds 5% of the bidder's market value. "Acquirer size" is the natural logarithm of the market value of acquirer's common stock as of five days prior to the acquisition announcement. "Liquidity index" is computed as the worldwide aggregate value of corporate control transactions that took place in the target's 3digit SIC industry classification over the interval beginning three months prior to and ending the month of the announcement of the acquisition in question, excluding that acquisition, divided by the aggregate worldwide market value of equity of publicly-traded stocks in the same 3-digit SIC industry as the target, measured as of the end of the calendar year preceding the year of the acquisition announcement. "Cross-border acquisition" is a dummy variable that takes the value of one if the bidder and the target are incorporated in different countries. "Initial acquisition" is a dummy variable that takes the value of one if the bidder has not made any other acquisition announcements over the previous two years. "Acquirer Tobin's Q" is the market value of the acquirer's equity as of the calendar year-end prior to the announcement plus the book value of debt and preferred stock from the most recent financial statement prior to the acquisition announcement divided by the sum of the book value of equity, debt and preferred stock as of the same date. "Within industry" is a dummy variable that takes the value of one if the target has the same primary 3-digit SIC code as the acquirer. "Relative market value" is the total amount paid for the target less the amount of any liabilities assumed or paid by the acquirer divided by the market value of the acquirer as of the calendar year-end prior to the announcement. "UK acquirer" is a dummy variable that takes the value of one if the bidder is incorporated in the UK. $a = \frac{1}{2}$ significant at 0.01, ^b = significant at 0.05. Significance is based on White (1980) heteroskedasticity-adjusted standard errors.

| | All targets | | Listed ta | argets | Unlisted stand-alone targets | | Unlisted subsidiary targets | |
|----------------------------|----------------------|----------------------|---------------------|---------------------|---------------------------------|----------------------|--------------------------------|----------------------|
| Independent variable | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Constant | 3.6354 ^a | 3.7463 ^a | 5.2704 ^b | 5.2260 ^b | 5.6756 ^a | 5.4117 ^a | 4.0560 ^a | 4.1537 ^a |
| Stand-alone target | 1.2775 ^a | 1.2651 ^a | | | | | | |
| Subsidiary target | 1.3965 ^a | 1.3476 ^a | | | | | | |
| All-stock acquisition | 0.3251 | | -0.6399 | | 1.8787 | | 0.4645 | |
| Cash-and-stock acquisition | 0.3309 | | 1.4060 | | -0.1704 | | 0.4688 | |
| Blockholder created | 1.0868 | 1.3484 | -1.3571 | -1.6898 | 1.1136 | 1.7095 ^b | 2.2033 | 2.6287 ^b |
| Acquirer size | -0.2471 ^a | -0.2509 ^a | -0.3301 | -0.3195 | -0.2678 ^b | -0.2431 ^b | -0.2372 ^b | -0.2435 ^b |
| Liquidity index | -0.7560 | -0.7322 | -1.6105 | -1.7741 | 0.0851 | 0.1916 | -1.0279 | -1.0159 |
| Cross-border acquisition | 0.1532 | 0.1307 | 0.8000 | 0.7301 | -0.7360 | -0.7228 | 0.8510 | 0.8443 |
| Initial acquisition | 0.4406 | 0.4310 | 1.0796 | 0.9865 | -0.1278 | -0.1044 | 0.9034 | 0.8912 |
| Acquirer Tobin's Q | 0.0164 | 0.0216 | -0.0857 | -0.0905 | 0.0051 | 0.0204 | 0.0550 | 0.0655 |
| Within industry | 0.0029 | 0.0114 | 0.1636 | 0.1466 | -0.0675 | -0.0907 | 0.0622 | 0.0658 |
| Relative market value | 0.0000 | -0.0026 | -0.0054 | -0.5068 | 0.0000 | 0.0022 | -0.0001 | -0.0085 |
| UK acquirer | -0.7520 ^a | -0.7381 ^a | -0.9632 | -0.8513 | -0.6783 | -0.8258 | -0.3634 | -0.3691 |
| Number of observations | 4206 | 4206 | 597 | 597 | 1913 | 1913 | 1696 | 1696 |
| Adjusted R-squared | 0.011 | 0.014 | 0.010 | 0.0081 | 0.011 | 0.009 | 0.016 | 0.017 |
| p-value of F-test | 0.000 | 0.000 | 0.117 | 0.131 | 0.001 | 0.002 | 0.000 | 0.000 |