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Acquiring firm stock return in relation to private and public deals

A study into the explaining factors of stock returns of acquiring firms

KEYWORDS: *Takeover announcement, private targets, public targets, method of payment, deal attitude, size effects, bidder return*

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ABSTRACT

This study examines the effect of a takeover announcement on the bidder stock return. The research is done for the West-European stock market, from 2000 till 2010. Bidder firms earn a significant abnormal cumulative return during the event period of 0.83%. Acquirers of a private target firms earn 1.11% and for public target firms the return is 0.65%. In addition a takeover bid with a share only payments has large influence on the bidder return result, in case of a private takeover a positive return of 6.63% is generated and for public takeovers there is a negative return of -4.42%. Also the market size of the bidder has influence on the bidders return; small firms tend to earn higher return than large firms when a takeover is announced. Furthermore when the deal attitude is hostile the return for the bidder firm is highly negative, with a result of -6.45%.

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1. INTRODUCTION

In 2010 the merger and acquisition market has a total market value of 1.9 trillion dollar, more than 32 thousands deal where completed. Still quit smaller than the record year of 2007, where the total market value was 4 trillion dollars. In Europe the M&A market has a size in 2010 of almost 700 billion, with more than 15 thousands transactions. The UK M&A market is the largest of Europe. These facts are an indication for the amount of interest for this topic. There has been a lot of research about the topic of mergers and acquisitions, this research will be on the topic of bidder stock return and takeover announcements.

During a takeover announcement the stock price of the target firm jumps most of the time according to the bid premium on the stock and even higher if there is a possibility of a bidding contest. But what is the effect of a takeover announcement on the acquiring firm, there is much less research done about this topic. Do acquiring firms gain or loss in stock value if they announce a takeover? Is there an abnormal return in the stock movement of the acquiring firm? Is this a positive return or negative return? Can this return be explained? Are there differences between private and public takeovers? What are key drivers for this return? All questions that I hope to answer with this thesis.

In this study deal characteristics will be examined in an attempt to explain the bidder stock return in case of a takeover announcement, the focus of the research will be on the West-European stock market, since most of the M&A research is done for the US markets, therefore it is more interesting to investigate if the explaining factors are also of influence in the European market. There is research about this topic on the European market, among a recent study at the UK market. However the last decade is hardly examined, hence it is interesting to find out if the factors in earlier research still persist or that their influence has changed in time.

The thesis is structured as follows. In the second chapter of the thesis the current literature is reviewed. The third chapter will describe the used methodology and characteristics of the data sample. In the fourth chapter the results of the univariate and the multivariate test are presented and in chapter five the conclusion of the study is given.

2. LITERATURE REVIEW

In the financial literature there are a lot of studies about the takeover announcement effects of on stock price of bidder and targets firms. Most of these studies almost always indicate a large positive stock return during the announcement period for the target firms. On average this return is between the 20% till 40%. For bidder firms it is a bit more complicated. Since the stock return results MORE are mixed and much depending on the deal characteristics, besides that this topic is less researched. For the most part these studies are focused on the US stock markets, there are few studies done on this topic for the European stock market. Hence there is no research for the effect on stock prices in the last decade for the European market. The findings of most US studies are indicating a positive effect on acquiring firm's stock performance. Moeller, Schlingemann and Schultz, (2003) found a positive cumulative abnormal return (CAR) of 1.1% by public firms in the period from 1980 till 2001 on the US stock market. Goergen & Renneboog (2004) found a CAR of 1.18% for bidders in the European stock market in the period 1993 till 2000. These cumulative abnormal returns are defined by the cumulative return in a specific period around the announcement date minus the market return in that period, usually this period is 2 days before till 2 days after the announcement. Although most research indicates a positive abnormal return for bidder firms, it is greatly depending on deal and firm characteristics. What is driving these differences and which aspect of the deal characteristics influences the CAR the most? Based on research of others the factors that seems to have the greatest influence on the return are firm size characteristics, the method of paying, the status of the target firm, is it a private or a public firm, deal attitude and the takeover domestic or foreign.

Firm size characteristics are being accounted for significant factor of influence on the CAR of bidder firms according to the research of Moeller *et al.* (2003). Small bidder firms (they defined small bidders as bidder firm with a market capitalization below 25th percentile of NYSE stock exchange) exceed the large bidder firms CAR by 2.24%. These finding were supported by European research of Mario Faccio, John J McConnel, and David Stolin (2006). Their research showed a CAR different between small and big acquirers of 1%, in favor of small firms, although these results only count for takeover of private firms, the different between takeovers of public firms weren't significant. The results of the study of Goergen & Renneboog (2004) didn't confirm the firm size influence.

Another major factor of influence on the CAR of the bidder, is the status of the target firm, private (unlisted on stock exchange) or public (listed on stock exchange). Moeller *et al.* (2003) find in their research that the CAR for takeovers of private firms is higher than for public firms. This is in line with research of Chang (1998), Fuller *et al* (2002), Andrade, Mitchell, and Strafford (2001) and the European study from Faccio *et al* (2006). They find a positive CAR of significant 1.48% for private firms and an insignificant return of public firms of -0.38%. Faccio *et al* (2006) studied the European market from 1996 till 2001. Their results also show significant greater CAR for takeovers of private firms than for public firms.

The paying method for the takeover is also significantly of influence on the return. Travlos (1987) find a significant lose for bidder firms which made the offer in common stock. Travolos finds no significant difference for cash offers. His research is concentrated on takeovers of public firms only. The results of Chang (1998) indicate a significant larger CAR for stock offers than cash offers for private firms. For public firms the results are opposite, which is in line with the study of Travalos (1987). The results of Travalos show that stock offers for private firms generate a CAR of 2.64% and for public firms -2.46% Chang (1998). The two results for cash offers where small and insignificant. The study of Chang is done for the US market from 1981 till 1992. This in line with the research of Moeler *et al.* (2003), their results show a CAR of 1,49% for takeovers of private firms paid in stock and 1.21% for cash. For public firms their results show a CAR of -2.02% for stock offers and 0.36% for cash offer, although that last number is not significant. This study is done for the US market between 1980 and 2001. The research of Draper & Paudyal (2006) shows a similar result. Their study investigates the same time period, only they used the UK stock market for their research. Goergen & Renneboog (2004) find a significant larger CAR for cash offers for European bidders, 2.57% versus 0.9% for stock offers, but their results aren't split into in public and private takeover. Faccio *et al* (2006) did and their results where similar with the US studies. 3.90% CAR for private targets with stock offers and 1,17% for cash offers. For public targets with stock offers the CAR is -1.81% and for cash offers 0.3% although this last number is not significant.

However there are more factors that influence the CAR. For example Goergen & Renneboog (2004) found in there research that a hostile takeover is responsible for a negative CAR on the bidder side by -3.43% a friendly takeover bid will result in a positive CAR of 1.94%, this is in line with the findings of Servaes (1991). In the research of Schwert (2000) and Moeller *et al.* (2003) the results are not significant on the bidder return for a hostile takeover. On this particular topic there is little research.

Besides the hostile factor, Gergen & Renneboog found a cross-border influence. They found that a cross-border acquisition generates higher bidder return results than domestic acquisitions. Cross-border takeovers results in a bidder return of 3.09% (significant a 1% level). A domestic takeover results in return of -0.10% for the bidder firm, although this number is not significant.

These five factors are the most significant in their results and they have shown to results in the largest influence on the bidders' CAR. There other deal characteristics that also showed of influence in research, although these factor are less strong in explaining power and in magnitude of influence. Other factors with influence found by researchers are higher bidder returns for takeovers of target firms with a low Tobins's found by Lang *et al.* (1989) and Serveas (1991) although in later research by Moeller *et al.* (2003) these finding where not conformed. In the next paragraph will be explained why the five most important factor are of influence and what the different opinions about these reasons for their influence are according to the literature. First the influence of the relative size factor which is discovered by Moeller *et al.* (2003). They suggest that takeovers from large firms are a sign

that the firm has run out of internal growth options and larger firms tend to pay a higher premium for the target company. But a solid explanation is not given.

The second factor of large influence is the listed status of the target firm. Is it either a public or a private target? The results from the different studies in the M&A literature point out a significant larger CAR for takeovers of private firms. Researchers give numerous of possible explanations. Fuller *et al.* (2002) argues that the CAR for takeovers of public firms is lower, because the market for public firms is much more liquid. So that means more competition and more available information about the target firms. For private firms the competition is much less and the information about the company is less public available. That will reduce the chance of a large premium for private firms. Due to the liquidity argument the CAR for takeovers of public firms will be lower than the return for the private firm. This liquidity argument was confirmed by Moeller *et al.* (2003) and Chang (1998). Drauper & Paudyal (2006) agreed and added a second hypothesis, that of the managerial motive. They argue that managers of bidder firm seek maximizing the private benefits or maximizing the shareholders wealth. Private benefits are positively associated with size and the prestige of the firm they manage and the extent of the resource they control.¹ Therefore managers prefer to take over large and public firms, to achieve more private benefits, rather than maximizing shareholders wealth. Due to this effect they pay a larger premium for bigger and more public known firms. As results this has a negative effect on bidders return for a takeover of a public firm.

The third factor of influence is the method of paying. Most of the research shows a correlation between stock offers and negative returns for public takeovers and positive returns for stock offers of private firms. One argument for lower return on equity for public firms is that a bidder firm will pay in equity if the management thinks that the firm's equity is overvalued. And if undervalued they will not pay in equity. An equity paid deal could suggest overvaluation of the bidder firm's equity and that could lead to negative stock return on the bidders' side (Mayers and Majluf, 1984). There is much less research done on the topic of takeovers of private firms. Hence, an explanation for the positive return with equity for private targets is that private targets often have a small number of shareholders. They have an incentive to thoroughly read the bidding firm prospect, because after the deal, they will have a large amount of the bidders stock. The acceptance of this stock offer could be interpreted by the market as a positive sign. That could lead to a positive return for the bidder firm. This is argued by Chang (1998)

A hostile takeover of a target firm causes a lower CAR for the bidder firm in the research of Schwerts (2000). A reason for the negative influence of the fourth factor is a higher paid premium for hostile takeovers. He shows that bidder firms in hostile takeovers often pay a larger premium for target firm. That could lead negative stock performance of the bidder firm. Another aspect of influence is that hostile takeovers could lead to an auction, in which different bidders competed

¹ Paul Drauper and Krishna Paudyal. *Acquisitions: Private versus Public*. 2006.

against each other for the target company. An example of this is the takeover of the Dutch bank ABNARMO. In this case multiple bidders were competing to acquire the bank, which eventually led to a higher premium for the target.

Renneboog & Goergen (2004) found that domestic takeovers are resulting in a higher CAR than foreign takeovers, especially for UK bidders. For bidder firms from other countries the CAR result is more mixed, although the limited data sample could be an explanation for this mixed result.

However the findings for the entire data set are still significant and remarkable since the difference in the paid premium for the target firm is not significant in the event period of -2 till +2. A drawback of their results is the limited data sample that they used, for analyzing the CAR results between domestic and foreign takeovers, the sample count is often less than 15 and they didn't correct their results for influences of other factors in the univariate test. In the OLS regression the domestic influence is still significant at a 10% level, with a negative influence for domestic takeovers.

3. DATA AND METHODOLOGY

The collecting of the merger & acquisition data is done from the SDC Platinum database. Stock data and interest rates are obtained from DataStream. The research period is the last decade; the data will be collected for period 2000 till 2010. This research will be focused on the West-European stock market and including the UK. The decision for a study on European market is made, because this market is less researched, since most of the research is done for the US market.

The selection of deals out of the SDC Platinum database is made from the following criteria: (1) Deal announcement between 01/01/2000 and 31/12/2010. (2) Bidder firm is listed on the following possible stock exchange: "Euronext Amsterdam, Euronext Paris, Euronext Lisboa, Euronext Brussels, London or Frankfurt" (3) Deal value at least \$10 million. (4) The target status is a public firm (exchange listed), a private firm (not exchange listed) or a subsidiary. (5) At least 50 % of the stock is acquired in the transaction. (6) The payment of the deal must be in cash only, shares only or a combination of these two (hybrid payment). After this first selection stock return was obtained from the DataStream database for a period with 20 days before the event till 20 days after the event. Data about deal attitude, deal value, bidder market value, bidder nation and target nation are also obtained from the SDC database. After this selection 1962 deals were obtained from the SDC Database with the stock return for DataStream. The characteristics of the entire sample can be found in table 1.

The focus of the research lies on the differences in stock performance of the bidder firm during the announcement date. Essentially it is about the cumulative abnormal return around that date. The cumulative abnormal return (CAR) is calculated on a five day period, (-2) till (+2), around the announcement date. This period is common used in other merger and acquisition research, so that improves the comparability and it is a typical period for a general stock event study. For control purposes a three days CAR is also determined, although the focus lies on the five day event window. The following equation is used to determine the CAR five days:

$$CAR5 = \sum_{i=5}^n (Market\ return - Stock\ return) \quad (1)$$

Equation 1 is used to calculate the cumulative abnormal return for the five day period. For the calculating the market return the Dow Jones Euro Stoxx 50 index is used. This index is broad index with the largest fifty companies' of Europe. The stock return is calculated as the difference between the previous and the current day. With the calculated CAR this study is going to give more details into how this CAR derives and what the depending variables are in explaining the CAR.

3.1 Descriptive statics of the data sample

In this section the descriptive statistics of the data sample are presented. The characteristics about the target public status and the method of payment are shown in table 1. Interesting to see is almost the half of the total deals consists out of private deals. Public deals are only 16% of the total of the total amount and subsidiary deals take 37% of the total. The deal value of public targets is 21 times larger than the value of private deals. The payment method for takeovers is largely dominated by cash deals; this accounts for almost 80% of the deals. Only 7% are deals made with shares only, the rest of the deals are a combination of the first two. The deal value for share only offers is almost 3 times larger than cash deals.

		Count	Percent	Target/ Deal value in \$ Millions
Target Public Status	Private	915	46.6%	86.19
	Public	321	16.4%	1829.19
	Subsidiary	726	37.0%	396.95
	Total	1962	100.0%	486.35
Method of Payment	Cash	1507	76.8%	402.68
	Shares	129	6.6%	1131.29
	Hybrid	326	16.6%	617.95
	Total	1962	100.0%	486.35
Deal attitude	Hostile	5	0.3%	9847.80
	Friendly	1910	99.7%	458.85
Size effect	Large Firms	1097	73.5%	742.63
	Small Firms	396	26.5%	84.90
Domestic of Foreign	Foreign	1095	55.8%	611.76
	Domestic	867	44.2%	327.97

Table 1: Target Characteristics; Count, percentage and Target size

In the data sample also data about hostile takeovers is collected, however there is few data about hostile takeovers, only 5 deals of the 2001 samples are marked as hostile. These hostile deals are all public takeovers. Four are financed with cash and one with a combination of cash and shares. The average deal value is \$9.8 billion. To examine the size effect the data file is split into two parts, the first is the smallest 25% of the acquirer market size (labeled as Small Firms), the other group is largest 75% of the acquirer market size (labeled as Large Firms). Interesting to see is that average deal size for small bidder firms is almost ten times smaller than for large bidder firms. In table 1 the variable domestic or foreign takeovers show that the distribution is almost equal divided. Cross border takeovers have almost twice the deal size of domestic takeovers. In table 2 the different deal values are divided by the public status and compared by the method of paying. Interesting to observe is that private deals funded by cash are larger in deal size than shares payments, for public takeovers this effect is reversed. Although the combination of cash and share (hybrid) offers are responsible for the largest deal value, with an average mean of \$2.5 billion. Hence bidder firms are most likely to pay with cash for a takeover in every category. For a larger public takeover, bidders are more likely to pay in shares. From the table is clear that a public takeover is more likely offered a share payment, than cash payment.

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		Target Value in \$ Millions								
		Private			Public			Subsidiary		
		Mean	Median	%	Mean	Median	%	Mean	Median	%
Method of Payment	Cash	94.35	32.10	71.8%	1607.64	338.31	64.2%	331.79	73.50	88.7%
	Shares	69.61	30.05	4.4%	1896.52	140.91	19.6%	910.44	282.85	3.6%
	Hybrid	64.64	25.16	23.8%	2625.30	801.84	16.2%	907.91	110.00	7.7%
	Total	86.19	30.47	100.0%	1829.19	339.68	100.0%	396.95	77.79	100.0%

Table 2: Target Characteristic; Target size, mean, median and percentage.

In table 3 the descriptive statistics of the five day cumulative abnormal return are presented. The distribution of the data is presented, at can be marked as not normal, a can been seen in skewness and kurtosis in table 3. The value of the Jarque-Bera test is 4732, which is significant at a 1% level. This implies that non parametric test most be used to analyze the data. Due to the fact that a normal comparison test requires a normal distribution of the data. For comparing two or multiple means, the Mann–Whitney–Wilcoxon test and the Kruskal–Wallis one-way analysis will be used. In the appendix a histogram of the CAR distribution can be found. This histogram clearly shows the non-normality of the distribution, with high kurtosis and fat tails.

N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
1962	-.45007	.75373	.0083093	.07886607	.338	.055
						7.351
						.110

Table 3: Descriptive Statistics Cumulative Abnormal Return 5 days.

In table 4 the yearly development is shown of the average deal size, there is a clear correlation between the business cycle and the target value. In the period of recession in 2001 and 2009 the mean of the target value is significant lower than in others years. The number of deal is showing a similar trend although is not as clear as the target value. This suggests that bidders tend to announce their takeover in an upstate of the economy. This seems logical since it's easier to get financing for an acquisition, when there is an upstate of the economic cycle. The overall mean of the target value over the last decade is \$477 million and the median is \$49 million.

Year	Target value in \$ millions		Count
	Mean	Median	
2000	652.37	55.00	277
2001	221.37	42.34	176
2002	297.41	45.51	152
2003	242.03	40.97	98
2004	220.12	57.75	129
2005	414.23	47.49	202
2006	650.77	56.05	238
2007	630.90	69.64	270
2008	694.79	38.17	171
2009	270.65	45.25	107
2010	567.37	55.60	142
Total	486.35	50.00	1962

Table 4: Target value from 2000 till 2010, Mean, Median and Count.

In table 5 the primary location of the bidder company is shown. The data sample consists of 26 different countries and 11 Western European countries. The sample exists for 75.5% of bidders from the United Kingdom, Germany is the second largest with 6.7%, followed by France and the Netherlands, with 6% and 3.5% respectively. The nation of the target firm is also for the largest part dominated by the United Kingdom with 40.2%, followed by the United States with 23.2%, and

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Germany and France with 6.1% and 5.1%, respectively. An overview of the nation of the target firm is presented in the Appendix. Roughly half of the takeovers are domestic; the sample is divided in 45% domestic and 55% foreign takeovers.

Bidder Nation	Count	Percent
Australia	1	0.1%
Austria	1	0.1%
Belgium	39	2.0%
Bermuda	2	0.1%
Cayman Islands	1	0.1%
Cyprus	2	0.1%
Czech Republic	2	0.1%
France	126	6.4%
Germany	133	6.8%
Gibraltar	7	0.4%
Guernsey	10	0.5%
Ireland-Rep	52	2.7%
Isle of Man	1	0.1%
Israel	3	0.2%
Jersey	1	0.1%
Kazakhstan	1	0.1%
Luxembourg	2	0.1%
Netherlands	73	3.7%
Papua N Guinea	1	0.1%
Portugal	2	0.1%
Qatar	1	0.1%
Russian Fed	13	0.7%
South Africa	4	0.2%
Switzerland	6	0.3%
United Kingdom	1473	75.1%
United States	4	0.2%
Total	1962	100.0%

Table 5: Bidder primary stock market nation; Count and Percentage.

4. RESULTS

4.1 General sample results of the univariate tests

The results for the cumulative abnormal return in the five day period are presented in this section. First the general results for the different factors are presented and then the influence by factor is examined in dept. There is strong evidence in the data that during the five days period around the takeover announcement an abnormal return is generated. The overall CAR5 return for all of the 1962 cases is 0.83%. This is in line with other study, Moeller *et al.* (2003), Fuller *et al.* (2006). Although this value is highly significant at 1% level, it is more interesting to understand which variables explain the CAR results. In table 6 the different factors of influence on the CAR result are shown.

From the results it is clearly that private and subsidiary takeovers are higher valued than public takeovers by shareholders. A private takeover results in a 1.11% return for the acquiring firm. A public takeover results in a CAR of -0.65% although this value is not significant different from zero. Hence the difference in return between private and public takeovers, which is 1.76% in favor of private takeovers, is significant at a 1% level according to the Mann–Whitney–Wilcoxon test for mean differences. The same accounts for the difference between a public and subsidiary takeover. These results between private and public takeovers are in line with US studies, Chang (1998) found a return of 1.45% for private and -1.49% for public takeovers. Moeller *et al.* (2004) 1.50%, -1.02%, 2.00% for private, public and subsidiary respectively. Fuller *et al.* (2002) results show 2.08%, -1.00% and 2.75%. A European study done by Faccio *et al.* (2006) show a return of -0.38% for public target, 1.51% for private and 1.44% for subsidiaries. These outcomes are also in line with the findings the results of Draper and Pauyal (2006).

Cumulative abnormal return five days [All data]		Mean	Median	Count
Target Public Status	Private	1,11% *	0,94%	915
	Public	-0,65%	-0,89%	321
	Subsidiary	1,14% *	0,91%	726
Method of Payment	Cash	1,09% *	0,82%	1507
	Shares	0,38%	-0,37%	129
	Hybrid	-0,19%**	0,14%	326
Hostile or Friendly	Hostile	-6,41% ***	-4,51%	5
	Friendly	0,79% *	0,72%	1910
Size effect	Large	0,75% *	0,51%	1097
	Small	1,64% *	1,30%	396
Domestic or Foreign	Foreign	0,64% *	0,71%	1095
Size effect	Domestic	1,08% *	0,76%	867

*Table 6. Mean and Median CAR -2 till +2 days and Count. Differences between Target Public States, Method of Payment and Hostile or Friendly attitude. * Significant at a 1% (two-tailed), ** 5% (two-tailed), *** 10% (one-tailed)*

The results of the CARs in method of paying are significant although the differences between the return are smaller than for the variable public status. Hence takeover offers funded with cash generates a 0.71% extra return in favor of a share offer and 1.28% against hybrid offers. The difference between cash and shares offers is significant at a 10% level (two –tailed) and the difference between cash and hybrid offers is significant at a 5% level. There is no significant difference between cash and hybrid payments for the entire sample.

Also the differences in deal attitude are examined, as can be found in table 6. Where the definition of Friendly is that the board recommends the offer and Hostile means that the board officially rejects the offer but the acquirer persists with the takeover. The difference between hostile and friendly takeovers is huge, namely 7.20%. The individual numbers are significant and also the difference between the two returns is significant at a 5% level (two-tailed). This implicates despite the low number of hostile deal there is a significant difference between the two types of deal attitudes. These results are line with the findings of Schwert (2000) and Goergen & Renneboog (2006).

The differences in CAR for small and large firms are also showed in table 6. The definition of small firms is classified as the first 25% percentile of the bidder's firm size. Large firms are all others firms. Small firms tend to generate higher returns than large firms. Small firms gain 1.64% during the announcement period against 0.75% for large firms. The difference between both classes is significant at a 5% level (two-tailed). Moeller *et al.* (2003) found hard evidence for the influence and these results seem to confirm that study. The reason for the dividing the sample between the 25% smallest and the largest 75% is to improve the comparability with the research of Moeller *et al* (2003).

The final part of the table shows the difference between domestic and cross-border takeovers. The CAR results are highly significant although the difference between two groups isn't significant. These findings are not in line with the results of Goergen & Renneboog (2004), they found significant higher result for foreign takeovers. When the sample is split into UK and non-UK bidder firms, the difference between domestic and foreign takeovers becomes significant a 5% level (one-tailed) for non-UK bidder firms. However this level of significance is quite low compared with the other factors.

4.2 Difference between years

In table 7, the five day CAR results are split into the different years. As can be observed the CAR difference over time, it seems that in periods of economical crisis the CAR is lower than in other years. The mean of the CAR 5 days is only in 2000 and 2001 negative, although these numbers aren't significant. The Kruskal-Wallis test for difference between multiple means shows a significant difference in return between years for the CAR return at a 1% significance level. Therefore the time factor is of influence on the result. In the appendix the difference in years for the different listing types is shown (table 17). From this table is clear that in almost every year the return for a private takeover is higher than for a public takeover.

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Year		Mean	CAR 5 Days		Count
			Median		
2000		-0,41%	-0,05%		277
2001		-0,31%	-0,08%		176
2002		1,96% *	2,57%		152
2003		1,86% *	2,29%		98
2004		0,20%	-0,24%		129
2005		1,37% *	0,69%		202
2006		0,23%	0,03%		238
2007		1,20% *	1,21%		270
2008		0,93% ***	0,26%		171
2009		1,72% *	1,44%		107
2010		2,07% *	1,54%		142

Table 7. Mean and Median CAR -2 till +2 days and Count. Differences between years. * Significant at a 1% (two-tailed), ** 5% (two-tailed), *** 10% (one-tailed)

4.3 Private versus public takeovers in combination with payment method

The results of the CAR in this part are divided in the difference between private, public and subsidiary takeover announcements. In table 6 the difference between payments for the entire samples is small. In table 8 the results of the CAR are shown for the different listing types according the payment method. Here we find evidence for a great influence of payment method on the CAR. The first part of the table shows the mean, median and the numbers of cases. The results show a CAR of 1.06% for private takeovers with a cash payment and 6.63% for a shares payment and 0.25% for a combination of these two (in the table this is called Hybrid). The result for a share payment is 5.57% higher than for takeovers paid with cash for a private takeover. This difference is significant at a 1% level. The difference between shares and hybrid payments is 6.38% and is also significant at the highest level. A public takeover financed with cash only generates a bidder return of 0.64%, a share only payment - 4.42%, and a hybrid payment -1.21%. Only the share payment CAR is significant according to the T-test for means.

		CAR 5 Days								
		Target Public Status								
		(A) Private			(B) Public			(C) Subsidiary		
		Mean	Median	Count	Mean	Median	Count	Mean	Median	Count
Method of Payment	(1) Cash	1,06% *	0,88%	657	0,64%	-0,38%	206	1,27%	0,90%	644
	(2) Shares	6,63% *	3,92%	40	-4,42% *	-3,51%	63	2,40% ***	2,00%	26
	(3) Hybrid	0,25%	0,65%	218	-1,21%	-2,85%	52	-0,96%	-1,25%	56
Differences Between Payments	(1) – (2)	5,57% *			5,06% *			1,13%		
	(1) – (3)	0,81%			1,85% ***			2,23% ***		
	(2) – (3)	6,38% *			3,21% ***			3,36%		
		(A) – (B)			(B) – (C)			(A) – (C)		
Differences Between Status	(1) Cash	0,42% ***			0,63% ***			0,21%		
	(2) Shares	11,05% *			6,82% *			4,23%		
	(3) Hybrid	1,46% ***			0,25%			1,21%		

Table 8: Notes: Independent T –test is done for testing significance of means. Mann–Whitney–Wilcoxon test is performed to test the significance of the difference between means. * Significant at a 1% (two-tailed), ** 5% (two-tailed), *** 10% (one-tailed)

The differences between different payment methods are all significant. The difference between cash only and share only is 5.06% in favor of cash payments. This is reverse of the findings for private takeovers, where share offers generated the highest return for the acquiring firm’s stock return. The difference between cash and hybrid is smaller, 1.85% in favor of a cash payment and 3.21% for the

difference between share and hybrid payment, although these are less convincing, since they are only significant at a 10% significance level. For subsidiary takeovers, a share payment is the only payment method that gives a significant return, although the significance is respectable low. The CAR for a subsidiary takeover with paid with shares is 2.40%. The only difference between the different payment methods that is significant is between a cash payment and a hybrid payment, and notes 2.23% at a 10% level significance

The second part of the table shows the differences in return, between the public status of the target firm and according to the selected payment method. The difference for cash offers between private and public is 0.42%, and is only significant at a 10% level (one-tailed). The difference between private and public for share offers is much greater than for cash offers and the difference is 11.05%, and this number is significant at a 1% level. The differences between payment methods for subsidiary takeovers are smaller and only significant for share offers and cash offers compared with a public takeover. The difference for share offers is 6.82% and 0.63% for cash offers; both are in favor of subsidiary takeovers. There are no significant differences found between private and subsidiary takeovers in the same payment method.

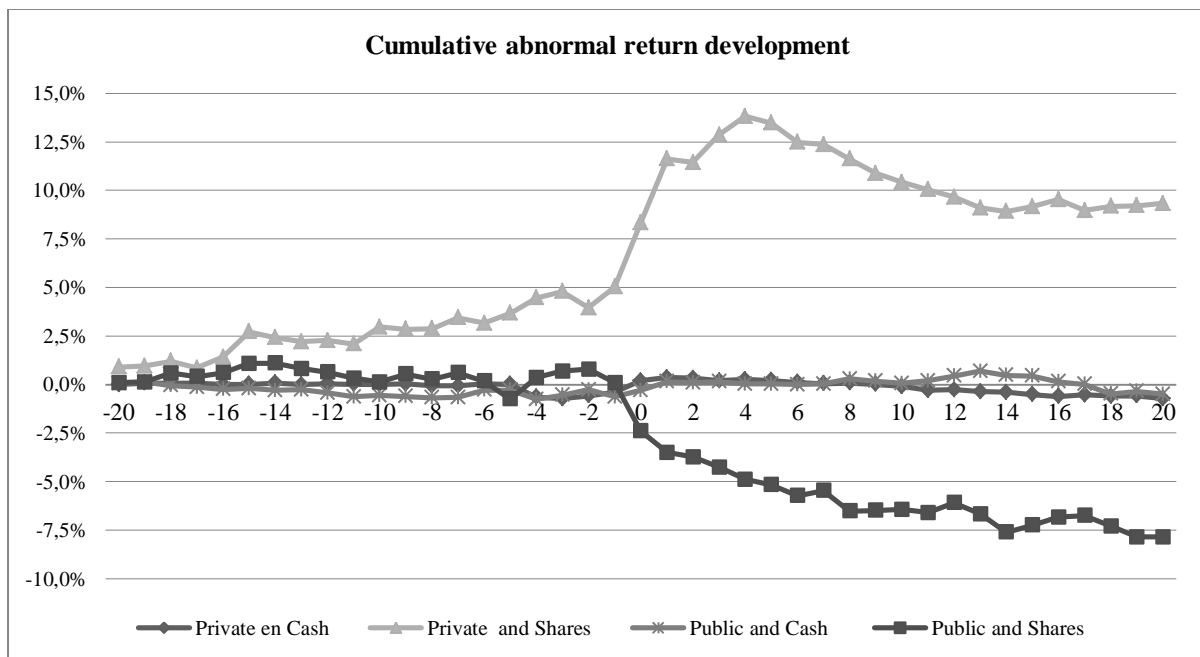


Figure 1: Bidders Cumulative Abnormal Return for the entire event period, 20 days before the announcement till 20 days after the takeover announcement. The difference in CAR between Private and Public takeovers, combined with a Cash or Share payment.

In figure 1, the huge difference between the different payment methods is shown over time. It's clearly visible that a public takeover financed with share gives the bidder firm the worst stock performance and private takeovers also financed with shares gives the highest stock performance. Takeovers with cash only financing has much less influence on the bidder's stock return. The difference are there although less visible in the figure shown below. The main findings out these

results are that private takeover paid with shares generates the highest bidder return and for public takeovers shares offers generates a worst return. This is in line with the findings of Draper& Paudyal (2006). These results are a confirmation for the liquid argument for private held firms and the managerial motive argument.

4.4 Size effect

In table 6 significant differences of the CAR between large and small bidder firms was found. When the data file is split into five equal groups for bidders firm size the difference becomes even clearer, as can be seen in table 9. The smallest group, the first 20%, generates a return of 1.68%, this is significant larger than the largest group, the last 20% according the bidders market size. The CAR of this group is only 0.13%. A multiple test for equality of means (one-way ANOVA, Welsh) has a p-value of 0.09. Therefore the hypothesis that the means between the different sizes groups are equal can be rejected at a 10% level. Although a rejecting on a 10% level is the weakest form of rejecting and for that reason the influence of the size effect is still not convincing.

	CAR 5 Days		
	Mean	Median	Count
Bidder market value (5 equal groups)	0-20%	1.68%*	298
	20-40%	1.32%*	298
	40-60%	1.00%*	298
	60-80%	0.80%**	297
	80-100%	0.13%***	297

*Table 9: Notes: Independent T-test is done for testing significance of means. * Significant at a 1% (two-tailed), ** 5% (two-tailed), *** 10% (one-tailed)*

In figure 2 the CAR is shown for the entire research period, this graphic shows similar picture as the table. Large bidder firms tend to generate less return than smaller bidder firms. For the total period the largest group is generating a return of -1.2% against 1.5% for the two smallest group, this is difference is significant. Also the difference between all groups is significant for the entire period (p=0.015). The relation between bidder market value of the bidder firm and the target size is 43%, (pearsons correlation), this means that large bidder firms make large M&A deals en visa versa. Small bidder firms make relative more private deals 60% against 28% for the largest group and less public deals, respectively 14% and 29%. The payment method is 50% cash only for the smallest group and 90% for the largest group, share only offers account for 13% and 4%. Furthermore 75% of takeovers of the largest group are foreign against 47.3% for the smallest groups. These differences in deal characteristics between the bidder groups could be an explanation for the differences in return. The multivariate analyses in the last part of the chapter will give more insight in the actual influence of the size factor.

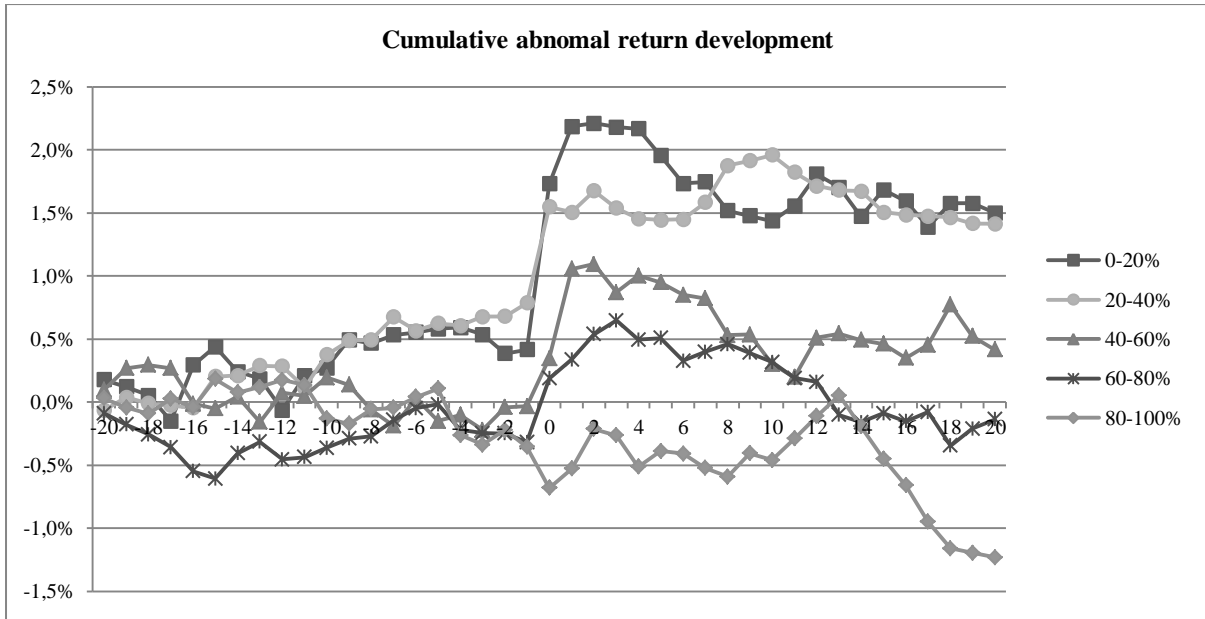


Figure 2: Bidders Cumulative Abnormal Return for the entire event period, 20 days before the announcement till 20 days after the takeover announcement. The CAR is split into five equal groups, based on the market size. In the figure 0-20% stands for smallest 20% of the data sample and 80-100% for the largest 20% of the bidders market size.

Next the CAR results are divided, according the public status of the target firm. This is shown in table 10. In this table the CAR is shown for the five and the three days CAR. In this table the results for the five days CAR aren't showing the same strong declining trend, as seen in table 9. In table 9 the return is linear declining with the increase of the bidder's firm size. In table 10 there is tested if there is significant difference between the CARs for the difference bidder size groups, for each listing type. For private and public listed firms there was no significant difference found between the two groups, only for subsidiary takeovers. The hypothesis for equality of means was rejected at a 10% level of significance (p-value 0.065) for subsidiary takeovers for the CAR five days, in the three day event window there were no significant difference between the bidders size groups found.

		CAR 5 Days								
		Target Public Status								
		Private			Public			Subsidiary (***)		
		Mean	Median	Count	Mean	Median	Count	Mean	Median	Count
Bidder market value (5 groups)	0-20%	1.85%	1.09%	180	0.11%	-0.48%	42	2.14%	2.56%	76
	20-40%	1.13%	1.43%	160	1.34%	-1.18%	33	1.60%	0.52%	105
	40-60%	0.97%	0.63%	154	-1.26%	-0.62%	41	1.94%	1.60%	103
	60-80%	1.16%	0.48%	129	-0.01%	-0.50%	50	0.75%	1.07%	118
	80-100%	1.05%	1.07%	84	-0.35%	-0.81%	87	-0.17%	-0.47%	126
		CAR 3 Days								
		Target Public Status								
		Private			Public			Subsidiary		
		Mean	Median	Count	Mean	Median	Count	Mean	Median	Count
Bidder market value (5 groups)	0-20%	1.92%	1.56%	180	1.43%	0.19%	42	0.95%	0.90%	76
	20-40%	0.90%	0.80%	160	0.20%	0.03%	33	1.23%	0.22%	105
	40-60%	0.97%	0.47%	154	0.31%	0.40%	41	1.05%	1.13%	103
	60-80%	0.88%	0.20%	129	0.00%	-0.53%	50	0.87%	0.84%	118
	80-100%	0.74%	0.93%	84	-1.00%	-0.63%	87	-0.28%	-0.31%	126

Table 10: Differences in CAR between the different public statuses, sorted by bidder market value groups, for five and three day CAR. Kruskal-Wallis test was performed to test the differences between the size groups in the three different listing types. * Significant at a 1% (two-tailed), ** 5% (two-tailed), *** 10% (one-tailed)

Finally the difference in the method of payment is combined in the table, as can be seen in table 11. Only the difference between large small and large firms is showed, because the split-up into five equal groups gave very mixed results. On first sight, the difference are quite large, hence only the difference for subsidiary takeovers with a cash only offer, shows a significant results at the highest level. A subsidiary takeover with a share only payment is only significant at a 10% level (two –tailed). The results from this univariate analyses are showing evidence for the influence of the bidder size factor, however the differences are small. This is in line with the findings in the research of Moeller *et al.* (2003).

		CAR 5 Days Target Public Status								
		Private Method of Payment			Public Method of Payment			Subsidiary Method of Payment		
		Cash Mean	Shares Mean	Hybrid Mean	Cash Mean	Shares Mean	Hybrid Mean	Cash Mean	Shares Mean	Hybrid Mean
Bidder Small/ Big	Large firms Small Firms	1.17%	4.00%	0.31%	0.72%	-3.33%	-1.19%	0.89%	0.74%	-2.32%
		0.81%	5.44%	1.79%	1.09%	-1.57%	0.07%	3.18%	6.49%	-1.21%
Absolute difference		0.37%	1.44%	1.48%	0.37%	1.76%	1.27%	2.29%*	5.75%***	1.10%

Table 11: Notes: Mann–Whitney–Wilcoxon test is performed to test the significance in the difference between means. * Significant at a 1% (two-tailed), ** 5% (two-tailed), *** 10% (one-tailed)

4.5 Domestic effect

The difference between domestic and foreign takeovers is shown in table 12. A domestic takeover by a bidder firm generates a CAR of 1.08 % and foreign takeover a CAR of 0.64% for the entire sample. The numbers are significant according the T-test for means and the difference between the public statuses is of significant influence. In table 8 the difference are split into the target public status. The difference between foreign and domestic takeovers for private firms is 0.82% in favor of domestic takeovers and for public firms the difference is 0.68% this time in favor of foreign takeovers. Although the median figures doesn't support this finding. The difference between foreign and domestic takeover aren't significant for either one of the three different listing types. Hence a domestic or foreign takeover doesn't significantly influence the CAR. This not in line with findings of Goergen & Renneboog (2004), they found significant differences significant and a opposite coefficient. They found a positive effect for cross-border takeovers. Since the only studied public takeovers we have to compare only public takeovers. As can be seen in table 12 there is a negative return for public takeovers, for both domestic and foreign takeovers. Although the foreign return is slightly less negative than the domestic return, however this is not support by the median. So the assumption that foreign takeovers generate higher bidder firm returns is not valid in this case. Therefore the hypothesis that there is a domestic effect is not conformed.

		CAR 5 Days Target Public Status								
		Private			Public			Subsidiary		
		Mean	Median	Count	Mean	Median	Count	Mean	Median	Count
Domestic or Foreign	Foreign	0.75% *	0.84%	508	-0.38%	-1.19%	192	0.99%*	0.84%	395
	Domestic	1.57% *	1.01%	407	-1.06% ***	-0.58%	129	1.31%*	0.98%	331

Table 12: * Significant at a 1% (two-tailed), ** 5% (two-tailed), *** 10% (one-tailed)

4.6 Results of the multivariate tests

In the previous analyses the return results were compared with different types of univariate test. In this section multivariate tests will be used to test the data sample. For analyzing the data an ordinary least squares regression is used. As a dependent variable the CAR five days is used, as independent the following variables are used; target public status (public=1), the payment method stock or cash (stock =1), the payment method hybrid or other (hybrid=1), the log size of the target, the log size of the bidder, the domestic or foreign location (domestic=1), UK bidder or other (UK=1) and deal attitude (hostile=1). For controlling purposes the same regressions are done for the three day CAR's.

In table 13 the first OLS regression is shown for the test for the entire data sample. The OLS regression with CAR 5 as dependent variable the variables target public status (private or public) and bidder firm size are almost significant. The only variable that is significant is the variable hostile deal attitude. Although the R² value is only 1%, the F-value is high and the P value strongly significant. In the OLS regression with CAR3 as depended variable the public status dummy becomes less accurate and the log of the bidders' size becomes significant at a 5% level. This conforms the influence of the bidders size factor. In addition the R² value improves to 2%. In the following part of the research of the OLS analyses, the regression results are split into the three different listing types; private, public and subsidiary.

In the OLS regression also the influence between years of acquisition is examined. The OLS regression for the entire sample there aren't significant difference between the years. In the regressions for the different public statues of the target firm, there is significant difference found for a couple of years. This is not showed in the regression section, since the influence is limited and it didn't improve the model. The table can be found in the appendix.

CAR				
Depending variable	CAR -2 till + 2 (CAR5)		CAR -1 till + 1 (CAR3)	
	Coefficient	P-value	Coefficient	P-value
Constant	0.032	0.006	0.034	0.001
Dummy public target	-0.009	0.175	-0.007	0.269
Dummy stock payment	-0.008	0.409	-0.001	0.933
Dummy hybrid payment	-0.004	0.491	-0.005	0.330
Log target size	-0.001	0.846	-0.001	0.752
Log bidder market size	-0.004	0.164	-0.006	0.027
Dummy domestic takeover	-0.001	0.796	0.002	0.669
Dummy UK bidder	-0.003	0.666	-0.002	0.699
Dummy hostile takeover	-0.082	0.026	-0.102	0.001
F-value	1.973		3.456	
Sig.	0.047		0.001	
Adjusted R ² value	0.8%		2.0%	

Table 13: OLS regression for the entire data sample. With the independent variable CAR five days and CAR three days.

In table 14 the results of the OLS regression for the three different listing types are shown. The first finding of regression one, is that the private takeovers in the OLS regression show a correlation between the CAR and the method of payment (shares or cash). This is the only coefficient which

shows significance (1% level). This regression has an adjusted R^2 value of 0.8%. The method of payment has a coefficient of 0.009, this means that a stock payment will result in a 0.9% less return than a cash payment. This regression is done for the entire data sample. The coefficient of domestic takeovers is slightly positive; this indicates that private domestic takeovers are generating more return than foreign takeovers. The target size variable has little influence. The coefficient for the market size of the bidder is negative, this accounts for all three different listing types. Although these last two factors of influence aren't significant for private takeovers. There is also a time effect in this OLS regression, although it is only significant for the year 2010, the year has a positive significant correlation with CAR.

The second regression in table 14 is done for takeovers of public targets. In this case, the variable method of payment (shares or cash) and the variable hostile have highly significant coefficients. They both have negative signs; this means that takeover announcements with stock payments result in a lower CAR and that hostile takeover is causing lower CAR returns, than friendly takeovers. The coefficient of the method of payment is -0.035 and the -0.079 for the hostile variable. Both are significant. This implicates that a hostile takeover causes 8% lower return than a friendly takeover in the model. The adjusted R^2 notes at 2.5% in this case. There is also a time effect in the regression for public takeovers, although it is only significant for the year 2005 the year has a positive significant correlation with CAR, with a coefficient of 0.035. The other factors in the model for public listed targets have all negative coefficients, however they are all far from significant.

For subsidiary takeovers two significant variables are found and this is the log of the bidder's market size and the dummy variable hybrid payment method. In this regression both coefficients have negative signs, this implicates a negative effect of a hybrid payment by 4.0% and a negative effect on the CAR for larger bidders. Both coefficients have a highly significant coefficient, and a relative higher adjusted R^2 value of only 3.4%.

Georgen & Renneboog (2004) found a significant negative influence for domestic takeover. As can be seen in the table, the coefficient is negative for domestic public takeovers, but far from significant. So their findings are not confirmed by these results.

Since the entire data sample is dominated by UK bidders, roughly 75%, it was interesting to see if UK bidder firms have an effect on the outcome. Faccio *et al.* (2006) shows a significant influence of this factor in their regression analyses. However in these results of OLS regression, the UK dummy never shows a significant p-value, therefore the conclusion is that the dominance of UK bidders in the sample has not influenced the CAR results for this sample, for the OLS regression split into target public status.

Acquiring firm stock return in relation to private and public deals

CAR -2 till + 2 (CAR5)

Depending variable	Target public status		
	Private	Public	Subsidiary
Constant	0.012 (0.402)	0.052 (0.052)	0.042 (0.003)
Dummy stock payment	0.035 (0.009)	-0.035 (0.027)	0.008 (0.611)
Dummy hybrid payment	-0.001 (0.825)	-0.013 (0.426)	-0.040 (0.000)
Log target size	0.008 (0.187)	-0.008 (0.320)	0.009 (0.069)
Log bidder market size	-0.005 (0.150)	-0.004 (0.540)	-0.014 (0.000)
Dummy domestic takeover	0.003 (0.771)	-0.012 (0.311)	0.001(0.856)
Dummy UK bidder	0.002 (0.555)	-0.003 (0.782)	0.003 (0.697)
Dummy hostile takeover	*	-0.079 (0.072)	*
F-value	2.014	1.931	4.131
Sig.	0.062	0.065	0.000
Adjusted R ² value	0.8%	2.5%	3.4%

*Table 14: OLS regression for CAR-2 till +2 and split for the three different listing types * Not available for this type. The coefficients are shown in the table, between bracelets the p-values are shown.*

In table 15 the same regressions are done for validation of the results, only this time for a CAR of three days (-1 till +1). The results show in broadly the same, although the p-values are a bit more convincing than for the five day CAR analyses. The R² is also a little higher, except for the targets firms with a subsidiary status. For private takeovers, the size of the bidder firm is now significant a 5% level. The results for public firms show little changes, besides adjustments in coefficients. In the results for subsidiary takeover, there is an interesting difference, since here the stock payment method becomes significant positive (10% level). The other factor of significance, log size of the bidder market value and the hybrid payment method are still significant with slightly changed coefficients.

CAR -1 till + 1 (CAR3)

Depending variable	Target public status		
	Private	Public	Subsidiary
Constant	0.015 (0.195)	0.051 (0.023)	0.025 (0.039)
Dummy stock payment	0.039 (0.001)	-0.029 (0.028)	0.023 (0.082)
Dummy hybrid payment	-0.002 (0.750)	-0.016 (0.244)	-0.030 (0.002)
Log target size	0.007 (0.190)	-0.007 (0.331)	0.003 (0.433)
Log bidder market size	-0.006 (0.050)	-0.007(0.252)	-0.008 (0.013)
Dummy domestic takeover	0.002 (0.661)	0.004 (0.701)	-0.004 (0.412)
Dummy UK bidder	0.002 (0.746)	-0.002 (0.871)	0.009 (0.113)
Dummy hostile takeover	*	-0.099 (0.008)	*
F-value	3.328	2.616	3.580
Sig.	0.003	0.013	0.002
Adjusted R ² value	1.9%	4.3%	2.8%

*Table 15: OLS regression for CAR-1 till +1 and split for the three different listing types. * Not available for this type. The coefficients are shown in the table, between bracelets the p-values are shown.*

The OLS regression with a three day time window, confirms the results of the CAR five days in general. In the last table of the multivariate analyze the OLS regressions are done for the different payment methods. In table 16 the coefficients for the different payments methods are shown for the five day and the three day CAR. For cash offers the hostile factor is for both regressions significant and in the three day CAR the bidder market size is also significant at a 10% level. The R² value for the OLS regression for the share payment method is the highest with 10.2% for the CAR five days.

Acquiring firm stock return in relation to private and public deals

CAR5 (-2 till +2)		Payment method	
Depending variable	Cash	Shares	Hybrid
Constant	0.025 (0.045)	0.044 (0.285)	0.050 (0.085)
Dummy target public status	-0.001 (0.892)	-0.078 (0.013)	-0.012 (0.540)
Log target size	0.001 (0.781)	0.005 (0.814)	-0.012 (0.341)
Log bidder market size	-0.004 (0.175)	-0.010 (0.575)	0.000 (0.973)
Dummy domestic takeover	-0.002 (0.732)	-0.015 (0.566)	0.011 (0.381)
Dummy UK bidder	-0.002 (0.765)	0.050 (0.051)	0.027 (0.083)
Dummy hostile takeover	-0.107 (0.005)	*	-0.009 (0.916)
F-value	1.756	2.700	1.260
Sig.	0.106	0.027	0.278
Adjusted R ² value	0.6%	10.2%	0.8%
CAR3 (-1 till +1)		Payment method	
Depending variable	Cash	Shares	Hybrid
Constant	0.031 (0.004)	0.039 (0.303)	0.056 (0.019)
Dummy target public status	0.003 (0.656)	-0.074 (0.010)	-0.009 (0.575)
Log target size	-0.002 (0.545)	0.013 (0.504)	-0.006 (0.593)
Log bidder market size	-0.005 (0.094)	-0.016 (0.312)	-0.009 (0.237)
Dummy domestic takeover	0.001 (0.853)	0.009 (0.715)	0.005 (0.636)
Dummy UK bidder	-0.003 (0.498)	0.045 (0.052)	0.017 (0.183)
Dummy hostile takeover	-0.133 (0.000)	*	-0.012 (0.862)
F-value	4.199	2.760	1.391
Sig.	0.000	0.025	0.221
Adjusted R ² value	2.7%	10.5%	1.3%

Table 16: OLS regression for CAR-1 till +1 and split for the three different listing types. * Not available for this type. The coefficients are shown in the table, between bracelets the p-values are shown.

The results for the OLS regression of the share payment method show significance in the target public status dummy (1% significance level.) and in the UK dummy. The results indicate that a target that is public listed has a negative impact on the bidders CAR of 7.8% and the UK dummy a positive effect of 5%. In this case takeovers by UK bidders have a significant effect on bidders stock return. The difference between the three and five day CAR regression is very small. For the third regression, the hybrid payment method, the only significant variable is the UK dummy, although it is only significant in the five day CAR regression and at a 10% level. All other factors in the regression are not significant. As results of this, the F-value is small and the model as a whole is not significant.

In the OLS regression is also looked at the influence of the sector influence of the bidder firm, there weren't significant difference in the univariate tests, therefore this factor isn't incorporated in the OLS regressions.

After the findings of the different OLS regressions, a couple of conclusions can be drawn. First the only significant effect on private takeovers is the payment method (shares or cash). Secondly for takeovers of public targets they are two significant effects on the CAR return, the payment method (shares or cash), this is of large influence for this type of takeover and the size of the target. Third for subsidiary targets the two variables of influence are the hybrid paying method and the size of the bidder. Other factors aren't a significant factor of influences. Another important finding is that the explanatory power of the OLS regressions is quite low. However this is common in merger and acquisition research, see Moeller *et al* (2003), Fuller *et al* (2002), Chang (1998) and Facio *et al* (2006).

5. CONCLUSION

The goal of this thesis is to provide insight in the stock return acquiring firm in case of a takeover announcement. The focus of the research lies on the European stock market and on the last decade. The most essential factors in explaining the depending variables of the bidder stock return in case of a takeover announcement are the target listing type, method of payment, bidder's market size and the deal attitude. Takeovers of private held firms generate a positive return of 1.11% for the bidder firm on announcement, for public listed firms the bidder return is negative with a negative result of -0.65%.

When looked at the method of payment, an offer with cash only bid, results in a positive bidder return of 1.09%, a stock offer 0.38% and combined offer -0.19%. However it gets really interesting if we divided the method of payment to the listing types. Then we observe a 6.63% bidder return for a private takeover with a share payment and a negative return of -4.42% for public takeover with a share payment. This difference is more than 11.05% and this figure is highly significant. For cash payment this difference is only 0.42%, the return amounted 1.06% for a private takeover and 0.64% for a public takeover. The influence of a stock payments method is confirmed by the OLS regression, where highly significant p-value were observed. It is therefore highly important for acquiring firms to consider which payment method they use in a takeover offer.

Furthermore there is correlation between the size of the bidder firm and the stock return during the announcement date. Small firms tend to generate higher returns than large firms. Small firms gain 1.64% during the announcement period against 0.75% for large firms. The effect is even clearer if the sample is divided in five equal groups, the smallest fifth part of the sample will gain 1.68% during the event and the largest part of the sample will gain only 0.13%. This factor also persists if the data is corrected for the different listing types of the target firm and the method of payment. In the regression this factor holds for private and subsidiary acquisitions, for public acquisitions the market bidder size had no significant influence.

Deal attitude appeared also as an important factor, when the deal attitude is hostile the bidder firms face a strong negative return of -6.41%, against 1.08% for friendly acquisitions. This factor also holds in the regression analyses. The findings of this study are in greatly in line with previous research results, done for the US market. All factors listed are valid in both the univariate and the multivariate results.

The results didn't show an indication for the significant influence of a domestic effect, domestic takeovers announcement would increase the CAR for the bidder firm, according to the literature. This is not confirmed in the research results.

Mangers of acquiring firms should take the public status of the target firm and the method of payment into account when making a takeover announcement, when they desire to maximize shareholder benefits.

5.1 Limitations and discussion

This research has a couple of limitations and discussion possibilities with reflection to the research done in this thesis. First the argument that the size factor of the bidder firm is of influence on the bidder CAR on announcement day. For investigating this argument there is looked at the market value of the bidder firm. One could argue that firms with higher market values are a higher possibility of being overvalued. However in the research of Moeller *et al* (2002), there is also looked at book value of the bidder firm. And the size effect still holds in their research when they looked at book value.

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7. APPENDIX

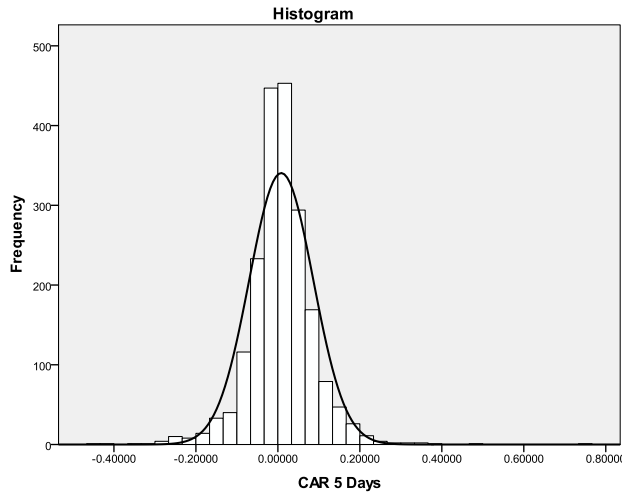


Figure 3: Distribution of the Cumulative Abnormal Return (5 days).

Regression with time influence

CAR -2 till + 2 (CAR3)

Depending variable	Target public status		
	Private	Public	Subsidiary
Constant	0.014 (0.336)	0.030 (0.327)	0.046 (0.004)
Dummy stock payment	0.033 (0.016)	-0.033 (0.040)	0.013 (0.397)
Dummy hybrid payment	-0.001 (0.926)	-0.004 (0.791)	-0.039 (0.000)
Log target size	0.008 (0.162)	-0.005 (0.541)	0.011 (0.028)
Log bidder market size	-0.006 (0.109)	-0.004(0.563)	-0.016 (0.000)
Dummy domestic takeover	0.004 (0.452)	-0.015 (0.229)	0.004 (0.514)
Dummy UK bidder	0.002 (0.767)	-0.004 (0.742)	0.003 (0.612)
Dummy hostile bidder	*	-0.089 (0.046)	*
Dummy year 2000	-0.029 (0.303)	0.002 (0.933)	0.005 (0.876)
Dummy year 2001	0.027 (0.172)	-0.042 (0.234)	-0.048 (0.038)
Dummy year 2002	-0.005 (0.669)	0.023 (0.348)	-0.017 (0.179)
Dummy year 2003	-0.008 (0.535)	0.007 (0.811)	0.019 (0.108)
Dummy year 2004	-0.010 (0.348)	-0.011 (0.701)	-0.011 (0.322)
Dummy year 2005	0.000 (0.998)	0.035 (0.077)	-0.003 (0.787)
Dummy year 2006	-0.006 (0.449)	*	-0.021 (0.043)
Dummy year 2007	*	0.013 (0.506)	*
Dummy year 2008	-0.004 (0.673)	0.035 (0.137)	-0.006 (0.605)
Dummy year 2009	-0.006 (0.665)	0.041 (0.069)	0.006 (0.615)
Dummy year 2010	0.017 (0.086)	-0.009 (0.715)	0.010 (0.352)
F-value	1.425	1.537	2.865
P-value	0.123	0.083	0.000
Adjusted R ² value	0.9%	3.5%	5.3%

Table 16: OLS regression for CAR-1 till +1 and split for the three different listing types. * Not available for this type.

		CAR 5 Days								
		Private			Public			Subsidiary		
		Mean	Median	Count	Mean	Median	Count	Mean	Median	Count
Year	2000	0.54%	0.53%	111	-4.17%	-2.78%	53	0.43%	0.95%	113
	2001	0.36%	1.65%	79	-2.32%	-2.34%	32	-0.13%	-0.16%	65
	2002	1.42%	1.35%	68	1.55%	-0.15%	23	2.71%	4.20%	61
	2003	0.75%	1.56%	39	-0.61%	1.28%	13	3.50%	3.61%	46
	2004	0.47%	0.00%	60	-2.22%	-2.26%	13	0.47%	-0.34%	56
	2005	1.25%	0.55%	107	1.55%	1.31%	35	1.47%	0.60%	60
	2006	1.01%	0.76%	117	-1.21%	-1.17%	43	-0.14%	-0.03%	78
	2007	1.39%	1.22%	132	0.14%	0.42%	42	1.39%	1.44%	96
	2008	0.97%	0.54%	104	2.16%	-0.41%	22	0.23%	-0.49%	45
	2009	0.82%	1.23%	34	3.00%	1.82%	24	1.72%	1.76%	49
	2010	3.27%	2.59%	64	-1.97%	-3.53%	21	2.22%	1.48%	57
	Total	1.11%	0.94%	915	-0.65%	-0.89%	321	1.14%	0.90%	726

Table 17: Difference in CAR 5 days for the different public listing statuses, between years. From 2000 till 2010.

Acquiring firm stock return in relation to private and public deals

Target Nation	Count	Percentage
Argentina	2	0,1%
Australia	36	1,8%
Austria	6	0,3%
Belgium	25	1,3%
Bermuda	3	0,2%
Bolivia	2	0,1%
Brazil	15	0,8%
British Virgin	1	0,1%
Canada	49	2,5%
Cayman Islands	1	0,1%
Chile	3	0,2%
China	16	0,8%
Colombia	1	0,1%
Croatia	1	0,1%
Cyprus	2	0,1%
Czech Republic	5	0,3%
Denmark	15	0,8%
Egypt	3	0,2%
Finland	6	0,3%
France	101	5,1%
Germany	119	6,1%
Gibraltar	1	0,1%
Greece	2	0,1%
Guernsey	4	0,2%
Honduras	1	0,1%
Hong Kong	9	0,5%
India	4	0,2%
Indonesia	3	0,2%
Ireland-Rep	35	1,8%
Isle of Man	1	0,1%
Israel	3	0,2%
Italy	25	1,3%
Japan	4	0,2%
Jersey	2	0,1%
Kazakhstan	1	0,1%
Kuwait	1	0,1%
Lebanon	1	0,1%
Luxembourg	3	0,2%
Malaysia	2	0,1%
Mauritania	1	0,1%
Mexico	1	0,1%
Monaco	1	0,1%
Netherlands	64	3,3%
New Zealand	2	0,1%
Norway	6	0,3%
Pakistan	1	0,1%
Panama	1	0,1%
Papua N Guinea	1	0,1%
Peru	2	0,1%
Philippines	1	0,1%
Poland	4	0,2%
Portugal	6	0,3%
Romania	2	0,1%
Russian Fed	16	0,8%
Saudi Arabia	1	0,1%
Serbia	1	0,1%
Singapore	3	0,2%
Slovak Rep	2	0,1%
South Africa	9	0,5%
South Korea	3	0,2%
Spain	17	0,9%
Sudan	1	0,1%
Sweden	23	1,2%
Switzerland	20	1,0%
Taiwan	4	0,2%
Turkey	3	0,2%
Ukraine	1	0,1%
United Kingdom	789	40,2%
United States	456	23,2%
Utd Arab Em	4	0,2%
Venezuela	1	0,1%
Zambia	1	0,1%
Total	1962	100,0%

Table 18: Primary stock market target location