The positive returns of firms acquiring private targets¹

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Abstract

We study the announcement returns to acquirers of listed and unlisted firms in a sample of firms from 16 Western European countries from 1997 to 2005. Bidders targeting for private firms generate higher announcement returns than those targeting for public firms. This is the so-called listing effect. Several explanations have been offered for this result. In this study we consider new explanations for this listing effect, and test their validity. We find that the tendency of companies to postpone the publication of bad news is a plausible explanation for the listing effect.

EFMA Classification Codes: 160, 120 Keywords: Acquisitions, target status, information diffusion, analyst coverage, announcement returns

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1. Introduction

Mergers and acquisitions are important events in the life of corporations. The effects for shareholders have been extensively studied. A general result is that the shareholders of target firms earn positive and significant returns, whereas returns for acquiring firms are much lower and possibly negative². Most studies use the returns in the days surrounding the announcement as the measure of value added to the shareholders. Recent studies have revealed systematic patterns in the announcement returns for acquiring firms. A persistent and yet unexplained phenomenon is that the announcement returns of firms acquiring private firms show positive cumulative abnormal returns as opposed to firms acquiring public firms that show negative announcement returns. This is the so-called listing effect. Chang (1998) investigated a sample of 281 acquisitions during 1981-1992 and found that firms acquiring private targets financed with a stock offer showed significant positive announcement returns. She also finds that in the sample of firms offering stocks, more block holders are created after the acquisition. Chang (1998) suggests that the emergence of block holders is the explanation for the positive announcement returns since block holders may facilitate increased monitoring of managerial activity and thus reduce agency costs. The existence of the listing effect has been confirmed in the US in Hansen and Lott (1996) with a study of 252 acquisitions in the period 1985-1991, Fuller et al. (2002) with a data set of 3,135 acquisitions of repeat-bidder in the period 1990-2000, and Moeller et al. (2004) with a sample of 12,023 acquisitions over the period 1980-2001. This phenomenon is also reported outside the USA by Draper and Paudyal (2006) for the UK acquisitions and Faccio et al. (2006) for Western Europe. Although the listing effect has not been disputed, the relation between the listing effect and the method of payment is not without dispute. For example, Draper and Paudyal (2006), Fuller et al. (2000) show that the existence of this result is independent of the method of payment. Moeller et al.

² For a discussion of this literature, see for example Fuller et al. (2002).

(2004) conclude that the resulting difference in announcement returns is amplified by issuing stocks.

In addition to the increased corporate monitoring as suggested by Chang (1998), several other explanations have been offered. For example, Draper and Paudyal (2006) do not find as much support for increased corporate monitoring as Chang does. Alternatively, they consider their results to be consistent with (1) the hypothesis that managers try to maximize their personal prestige by increasing the size of their firm with well known publicly listed firms, (2) the hypothesis that the announcement return of bidders for private firm reflects the elimination of the liquidity discount in the pricing of the private firm, and (3) the asymmetric information hypothesis inspired by Myers and Majluf (1984) that suggests that issuing shares reflects bad news. Moeller *et al.* (2004) suggest that the difference in the announcement returns can be explained with the liquidity effect, and that stock offers create the potential to delay tax liabilities and therefore magnify the difference in announcement returns.

The negative announcement returns of firms bidding on public targets are also puzzling. Why would managers initiate takeovers if they present negative returns to their shareholders? One answer is that managers suffer from hubris, as has been suggested by Roll (1986), which means that managers overestimate the benefits of proposed acquisitions. Jensen (1986) suggested empire building behavior as a potential reason for negative announcement returns.

In this paper we consider two alternative hypotheses for explaining the listing effect. The first hypothesis is related to the information diffusion model of Hong *et al.* (2000) and predicts for firms with low analyst coverage high announcement returns and low returns for the years following the announcement and vice versa for firms with high analyst coverage. The second hypothesis is the misvaluation hypothesis described in Dong *et al.* (2006). The hypothesis

predicts higher announcement returns for firms that have a lower valuation as compared to firms with a higher valuation.

The first explanation is related to the information diffusion model by Hong et al. (2000). This model can be relevant for explaining the post-acquisition performance of acquiring firms. Hong et al. (2000) suggest that managers have an incentive to publish good news as fast as possible and delay the publication with bad news. Low analyst coverage facilitates such a strategy, whereas firms that are covered intensively by analysts have less opportunity to postpone the publication of bad news. Their empirical results indeed confirm that stocks with lower analyst coverage react more slowly to bad news than to good news. This result may have implications for the announcement returns of acquiring firms as well. Firms with low analyst coverage may be able to postpone negative aspects of the proposed acquisition, and their announcement returns may be positive, whereas firms with high analyst coverage may not be able to do so. This could potentially explain the listing effect if firms acquiring private firms are less covered by analysts as compared to firms acquiring public firms. Consistent with Hong et al. (2000), firms acquiring private targets may face positive announcement returns since they mainly release good news, whereas they may face poor performance in the post-acquisitions period. Firms acquiring public targets may face the opposite results. Evidence in that direction is provided by Silva Rosa et al. (2003), who investigated the postacquisition performance and analyst following for a sample of 502 US corporate acquisitions of public firms. They find negative returns in the three years following the acquisition, which be primarily attributed to firms with no I/B/E/S coverage. Summarizing, if the information diffusion hypothesis is able to explain the difference between the announcement returns of bidding firms that target private versus public targets we expect that:

1. the analyst coverage for firms targeting private firms is lower than the analyst coverage for public firms.

2. the post-acquisition performance of firms targeting for private firms is lower than the post-acquisition performance of firms targeting for public firms.

Our second explanation is related to the information processing abilities of investor and their overconfidence regarding the prospects of the acquiring firm. Firms that are valued too high relative to their fundamental value find it easier to bid higher prices for acquisitions. In particular when the bidding firms pays with shares, the investors perceive the bidding price as too high. This has been studied by Dong et al. (2006), who found evidence that investor overvaluation of bidders fuels takeover activity. Using two measures of misvaluation, they find that bidding firms have higher measures of misvaluations than their targets. Furthermore, they find that higher valuations of the bidder firm are associated with lower announcement returns for the bidder. This result is consistent with the so-called misvaluation hypothesis, which states that overvalued bidders are perceived to offer too much for the target if the acquisition is financed with shares. The investors incorrectly perceive the bid as too high because they overvalue the shares offered relative to the target assets. This will result in a negative announcement return. On the other hand, if an undervalued bidder offers shares, this will be perceived positively. The misvaluation hypothesis could very well explain the positive announcement return for acquirers of private firms and the negative returns for public firms, if acquirers of private firms correspond to undervalued companies and acquirer's of public firms to overvalued companies. Consistent with the misvaluation hypothesis, we expect

- 1. higher valuation measures for the bidding firms than for the target firms.
- 2. higher valuation measures for the firms bidding for private target than firms bidding for public targets.

2. Data and methodology

We collected data on acquisitions by European based firms from the Zephyr database, which contains data on Mergers and Acquisitions, IPOs, private equity and venture capital deals with links to detailed financial company information. Zephyr is a relative new database with M&A data and is maintained by Bureau van Dijk Electronic Publishing. This database contains information for acquisitions by European firms starting in 1997, and for North American firms starting from 2001 and for the rest of the world from 2003. For this reason, we restricted our sample to the European data for the period January 1, 1997 to December 31, 2005, but we also include a few acquisitions in 1996 that were available in the database.

We selected all completed acquisitions with a known value and an acquirer that is quoted on a public stock exchange for 16 Western European countries. As a result, we obtain 21,519 acquisitions. We excluded deal that involved acquisitions of financial firms, utilities and firms active in the services industry. Following the selection process in the related literature, we only include acquisitions with a minimum deal value of 5 million US \$ and a minimum stake for the acquirer of 50 %. As a result, we obtain a sample of 4,597 acquisitions that are 'completed control acquisitions'. Next, we go over this sample with a detail screening process and exclude any acquisitions with a statement of "minority stake". Moreover, we exclude acquisitions with more than one acquirer. If two or more firms were involved with an acquisition, it is shown in each country's sample. This restriction gives us opportunity not to include the same transactions two times or more. Our last restriction is for price data availability in Datastream. After all these restrictions, we reach 2,938 acquisitions that we are able to calculate 5-day announcement period CAR. Table 1 provides information for the sample.

				ТА	BLE 1: S	Sample					
	1996	1997	1998	1999	2000	2001	2002	2 2003	2004	2005	Total
All Sample	9	146	215	231	528	414	412	2 387	511	85	2938
I/B/E/S							• • •				
Coverage	3	97	140	159	367	254	294	121	0	0	1435
					Acquir	er Coun	ntry	Target	Countr	y	
	Count	try			N	%		<u>N</u>	%		
	Austri	а			35		1.19	22	C	0.75	
	Belgiu	ım			38		1.29	30	1	.02	
	Germa	any			154		5.24	156	5	.31	
	Spain				113		3.85	103	3	.51	
	France	2			263		8.95	201	c c	0.84	
	Greec	e			29 151		0.99 5 1 4	112	U 2	01	
	Italy	nlondo			151		5.14	112	3	.81	
	Dortuc	rianus			124		4.22	90 55		.27	
	Switz	gai orland			40 68		2.31	30	1	.07	
	Unitor	d Kingde	m		1613	5	2.51	59 1051	25	.55	
	Irolon	i Kiliguo 4	0111		1015	5	2.06	1031	55	57	
	Denm	u ork			23		2.90	40 21	1	.57	
	Finlan	ar K Id			23 58		1 97	21 30	1	33	
	Norwa	av			50 52		1.77	37	1	26	
	Swede	n n			90		3.06	50	1	70	
	Swear			Total	2938		5.00	2080	70	80	
	United	1 States		Total	2/30			472	16	.07	
	Austra	alia						40	1	.36	
	Canad	la						40	1	.36	
	India							21	C	.71	
	Polano	t						20	C	.68	
	Japan							18	C	.61	
	Brazil							17	C	.58	
	Russia	an Federa	ation					17	C	.58	
	Mexic	0						16	C	.54	
	Czech	Republi	c					14	C	.48	
	South	Africa						13	C	.44	
	China							12	C	.41	
	Roma	nia						12	C	.41	
	Korea	Republi	c					10	C	.34	
	Argen	tina						9	C	.31	
	Chile							9	C	.31	
	Serbia	and Mo	nt.					9	C	.31	
	Hunga	ary						9	C	.31	
	Singa	pure						7	C	.24	
	Honk	Kong						6	C	0.20	
	Sloval	k1a						5	0	0.17	
	Turke	У						5	0	1.1/	
	Egypt	Zaalard						4		14	
	Toim	Lealand						4		14	
	Taiwa Dulaa	11 rio						4		10	
	Color	na						2 2		10	
	Solar	iula						2 2		10	
	Other							5 17	1	60	
	Julers	5		Total				47 2938	1	.00	
	L			rotai				4750			

In addition to stock market returns, we also collected information on analyst activity from the I/B/E/S – First Call consensus database, which contains a monthly consensus of the earnings estimates of firms provided by the participating analysts. Using ISIN codes and I/B/E/S tickers, we were able to match the information on the bidder firms with the information in the I/B/E/S database. We collected the 1-year and 2-year median earnings forecast for the bidding firm, the corresponding earnings realization, the number of analysts' covering a firm, and the standard deviation of the earnings forecasts contributing to the consensus. Consistent with prior research on forecast errors, we calculate the average forecast error at time *t* by comparing the median earnings forecast for the earnings in year *T* with its realization. This is a measure of the forecast bias. If the forecast is above (below) its realization, analysts are considered optimistic (pessimistic). We also collect the dispersion in analysts. Furthermore, we collect analyst coverage, which is the number of analysts that contribute to the I/B/E/S consensus forecast. We were able to collect information from I/B/E/S for approximately 50% of the firms in our acquisition database.

In order to test for both hypotheses, we divide the sample into a group consisting of announcements of firms bidding for public targets and a group for private targets. We calculate means and medians for both groups and test for the significance of the difference using respectively the F test for the means and the Wilcoxon Rank test for the median.

3. Results

In table 2 we present the announcement returns for the entire sample. Consistent with prior research, we find that the average announcement return for the firms targeting private targets is 1.54% higher than for firm firms targeting public firms. These results are consistent with the median announcement returns, reported on the second row of the table. We also checked

for the robustness of this phenomenon over the years, and find it to be robust over the periods 2000-2002 and 2003-2005. The difference is not significant in the first period from 1996-1999, which is likely to be caused by the limited number of observations on public deals.

TABLE 2: Acquirers' announcement period returns

This table reports the percentage Cumulative Adjusted Returns (CARs) of acquirers for the 5 days surrounding the announcement date (i.e., -2, 0, +2) and the corresponding test statistics. The CAR 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. Significance for differences between means and medians are based on non-parametric tests, which are F test for the mean differences (in parentheses) and Wilcoxon Rank test for the median differences [in square brackets].

All Sample	Public targets	Private targets	Difference	Significance
Average	0.32	1.86	1.54	(10.5)***
Median	0.26	1.04	0.78	[11.1]***
Number of observations	417	2521		
1996-1999	Acquisition Year	·s		
Average	1.15	2.31	1.16	(0.48)
Median	0.97	1.22	0.25	[0.36]
Number of observations	25	576		
2000-2002				
Average	-0.32	1.25	1.57	(4.42)**
Median	0.24	0.75	0.50	[1.21]
Number of observations	188	1166		
2003-2005				
Average	0.80	2.44	1.64	(5.65)**
Median	0.21	1.17	0.96	[11.9]***
Number of observations	204	779		

In table 3 we report on the impact of a number of explanatory variables related to the acquirer on the announcement returns. Since our sample is dominated by UK firms (more than 50% of all observations), we first check whether the listing effect is a UK phenomenon by dividing the sample into UK firms and non-UK firms. We find that the average announcement returns of private deals are large than those of public deals in both the UK and non-UK firms, although the difference based on medians is not significant for the UK. Consistent with Moeller et al. (2004), we report a size effect in the announcement returns. Furthermore, this table shows that the difference in announcement return between private and public firms is positive and significant for large firms. The difference for small firms is not significant.

	Public targets	Private targets	Difference	Significance			
UK	Home Country of	Home Country of Acquirer					
Average	0.33	1.87	1.54	(2.94)*			
Median	0.22	1.14	0.92	[0.40]			
Number of observations	129	1484					
Non UK							
Average	0.32	1.85	1.53	(8.40)***			
Median	0.27	0.97	0.71	[7.74]***			
Number of observations	288	1037					
Small	Size of Acquirer	(Total Assets of Acq	quirer)				
Average	1.30	2.68	1.38	(1.79)			
Median	1.35	1.54	0.19	[0.07]			
Number of observations	127	1376					
Big							
Average	-0.11	0.87	0.98	(6.42)***			
Median	0.10	0.65	0.55	[7.54]***			
Number of observations	290	1145					
Small	Size of Acquirer (Market value of Acquirer's Equity)						
Average	1.59	2.60	1.01	(1.39)			
Median	0.90	1.65	0.75	[1.86]			
Number of observations	173	1308					
Big							
Average	-0.58	1.06	1.64	(11.8)***			
Median	0.04	0.53	0.49	[6.32]***			
Number of observations	244	1213					

TABLE 3: Impact of a number of explanatory variables related to the acquire
on the announcement returns

In table 4, we report the market-to-book ratios for the firms covered in I/B/E/S. The differences in the market-to-book ratio for the group with public targets and the group with private targets are significant, but the sign is inconsistent with the misvaluation hypothesis: firms aiming at private targets should have lower market-to-book ratios than firms targeting public firms. Therefore, the misvaluation hypothesis cannot explain the listing effect.

	Public targets	Private targets	Difference	Significance		
Covered in I/B/E/S	I/B/E/S Coverage with 1 year horizon					
Average	2.92	4.78	3.86	(6.22)***		
Median	2.02	2.59	0.57	[20.1]***		
Number of observations	182	1046				
Covered in I/B/E/S	I/B/E/S Coverag	e with 2 year horizo	n			
Average	3.04	5.09	1.87	(7.57)***		
Median	2.02	2.73	0.69	[17.9]***		
Number of observations	204	1223				

TABLE 4: Market-to-book ratios for firms covered in I/B/E/S

In table 5 we report on the influence of deal characteristics. There is a significant listing effect for all variables except for deals paid with cash and deals involving diversifying acquisitions. The information diffusion hypothesis has no prediction on the difference in the method of payment. Therefore, the information diffusion hypothesis is not able to explain the absence of a listing effect for cash deals. However, it is likely that cash deals are smaller than deals paid in part or in total with shares. Therefore, the value effects for the acquiring firm may be too small to result in significant announcement returns.

	Public targets	Private targets	Difference	Significance
Domestic	Domestic vs Cro	ss Border		
Average	0.43	2.21	1.78	(5.19)**
Median	0.31	1.28	0.96	[3.44]*
Number of observations	192	1191		
Cross Border				
Average	0.22	1.54	1.32	(5.32)**
Median	0.22	0.79	0.56	[4.32]**
Number of observations	225	1330		
Cash	Method of Paym	ent		
Average	1.39	1.61	0.23	(0.14)
Median	0.55	1.04	0.48	[2.53]
Number of observations	143	500		
Shares				
Average	-2.19	2.86	5.05	(7.57)***
Median	-1.38	1.09	2.47	[4.78]**
Number of observations	42	104		
Mixed				
Average	0.12	1.87	1.75	(6.97)***
Median	0.12	1.07	0.95	[3.76]**
Number of observations	232	1917		
Focused	Focused vs Dive	rsified Acquisitions		
Average	0.27	1.92	1.65	(10.7)***
Median	0.20	1.10	0.89	[12.1]***
Number of observations	379	2350		
Diversified				
Average	0.33	1.17	0.85	(0.27)
Median	0.28	0.67	0.38	[0.67]
Number of observations	28	160		

 TABLE 5: Impact of deal characteristics on the announcement returns

Table 6 reports on variables related to analyst coverage as reported in I/B/E/S. In panel A, we observe that both groups of firms have on average higher announcement returns if they are not covered in I/B/E/S. This is consistent with the information diffusion hypothesis of Hong et al (2000). We also find that the announcement returns for unlisted targets are higher than

the announcement returns for listed targets, which is consistent with the diffusion hypothesis as long as the coverage for the firms bidding for unlisted targets is smaller. As we can observe in Panel B, this is indeed the case. However, we also find that there is a significant difference between the group containing the listed targets without I/B/E/S coverage and the unlisted targets without I/B/E/S coverage. This difference cannot be explained with the diffusion hypothesis, since there are no differences in coverage between these two groups. This indicates that the diffusion hypothesis is not able to fully explain the listing effect. However, it is possible that the difference between the returns of public and private acquisitions is due to a size effect, as documented by Moeller *et al.* (2004). In particular, if the acquirers of private acquisitions without I/B/E/S coverage are smaller than the acquirers of public acquisitions, this result can still be consistent with a broader interpretation of the information diffusion hypothesis. Although Hong *et al.* (2000) focused their analysis on analyst coverage, investors are also capable of monitoring firms. Even without formal analyst coverage, it is reasonable to assume that large firms are better monitored by investors than small firms.

Panel A: Announcement returns for firm with and without I/B/E/S coverage							
	Public targets	Private targets	Difference	Significance			
Covered in I/B/E/S	I/B/E/S Coverag	e					
Average	-0.50	1.37	1.87	(9.32)***			
Median	0.07	0.77	0.69	[4.04]**			
Number observations	209	1226					
Not Covered							
Average	1.15	2.32	1.18	(2.65)*			
Median	0.40	1.23	0.82	[5.66]**			
Number observations	208	1295					
Difference	1.65	0.95					
(Not Covered-Covered)	0.33	0.46					
Test Statistics	(4.87)**	(6.70)***					
	[0.40]	[3.89]**					

TABLE 6

	Public targets	Private targets	Difference	Significance
	Forecast Errors	6		
Average	0.1017	0.4412	0.3395	(0.56)
Median	0.0135	0.0105	-0.0030	[2.32]
Number observations	209	1226		
	The Number of	Analysts		
Average	15.94	11.91	-4.03	(30.81)***
Median	15	10	-5	[15.99]***
Number observations	209	1226		
	Dispersion in A	nalysts' Forecasts		
Average	1.37	1.88	0.51	(0.74)
Median	0.39	0.48	0.09	[4.49]**
Number observations	204	1125		

Panel B: Forecast errors, analyst coverage, and dispersion of forecasts for firms covered in I/B/E/S. Forecast errors, the number of analysts, and the dispersion in analysts' forecasts are based on the last available consensus forecast prior to the announcement date. Forecast error is measures as the difference between the forecast and the realized earnings scaled by the stock price. Dispersion is the standard deviation in the forecasts contributed by the analysts to the consensus forecast.

In panel B, we report that the average forecast error is positive, both for public and private targets. This indicates that analysts are on average too optimistic. However, there are no significant differences in optimism for both groups of stocks. Furthermore, we find that acquirers of private targets have significant lower analyst coverage as compared to acquirers of public targets. This result is consistent with the information diffusion hypothesis as one possible explanation for the listing effect. Finally, we find that the dispersion in analysts' forecasts is larger for acquirers of private targets. This suggests that there is more uncertainty regarding the future earnings of these companies, which may be related to the idea that firms with lower coverage postpone the release of bad news, and therefore create more uncertainty among analysts.

So far, we found some evidence pointing into the direction of the diffusion hypothesis. This evidence was mainly based on announcement returns. Since the information diffusion hypothesis has also implications for longer-term returns, we also investigate the post-acquisition returns. In table 6 we present the 1 and 2 year post acquisition buy-and-hold returns (BHR). These returns are adjusted by the corresponding Datastream index of the acquirer's country. Both the 1 year and 2 year returns are lower for private targets, although

the difference is only significant for the two year median return. We find similar results for stocks covered in I/B/E/S and stocks without I/B/E/S coverage. We conclude that there is some evidence that long term returns for acquirers of private targets is lower than for acquirers of public targets.

TABLE 7: Acquirers' long term buy-and-hold returns

This table reports adjusted 12 month and 24 month Buy-and-Hold percentage returns of acquirers starting from the first month after the announcement date and test statistics. The BHRs for each acquisition is adjusted by the BHRs of the Datastream stock market index of the acquirer's home country. Significance for differences between means and medians are based on non-parametric tests, which are F test for the mean differences (in parentheses) and Wilcoxon Rank test for the median differences [in square brackets].

	Public targets		Private targets		Test Statistics	
All Sample	1 year	2 year	1 year	2 year	1 year	2 year
Average	6.06	14.20	4.36	8.84	(0.40)	(1.68)
Median	2.20	8.79	-0.29	0.24	(1.61)	[8.36]***
Number observations	416	376	2502	2393		
Covered in IBES	Covered in IBES IBES Coverage					
Average	6.62	13.20	4.20	7.41	(0.41)	(1.69)
Median	3.91	7.49	0.43	0.92	[1.14]	[5.91]**
Number observations	204	204	1223	1223		
Not Covered						
Average	5.53	15.39	4.51	10.32	(0.07)	(0.49)
Median	1.43	9.93	-1.01	0.04	[1.10]	[3.23]*
Number observations	212	172	1297	1170		
Difference (F-test)	(0.08)	(0.10)	(0.02)	(0.88)		
[Wilcoxon Rank test]	[0.96]	[0.38]	[0.71]	[0.02]		

4. Conclusion

In this paper, we investigated the listing effect that occurs in the announcement returns of firms acquiring private targets versus firms acquiring targets. Previous studies have investigated this issue, and proposed a number of explanations. We suggest two alternative explanations. First, we investigate whether the listing effect is due to the undervaluation of acquirers aiming for public targets. Second, we investigate the information diffusion hypothesis, which relies on the idea that the slow release of bad news by firms with lower coverage by financial analysts can be responsible for the listing effect. Our results reject the first explanation, since acquirers of private targets have a higher market-to-book ratio as compared to acquirers of public targets. We find some support for the information diffusion

hypothesis, since acquirers of private targets have less analyst coverage and are smaller than acquirers of public targets. Furthermore, consistent with the information diffusion hypothesis, we find in our sample that the post-acquisition returns of acquirers of private firms are lower than those of acquirers of public firms. However, this result is not statistically significant.

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