The acquisition of non public firms in Europe: bidders' returns, payment methods and stock market evolution

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Abstract:

This paper studies the returns of non public firms acquisitions. Like the American studies do, we show the existence of a "non public firms acquisition effect" for the European multi-acquirer firms: abnormal returns are much higher for non-public firms (subsidiaries or private held firms) than for public firms. Our results also show that the returns are influenced by the stock market cycles: the returns are significantly higher when the market is bullish than when it is bearish. According to us, this result is consistent with Shleifer and Vishny (1988) and with Amihud and Lev (1981) and can be explained by agency phenomena. Indeed, we think that when the market is bearish, managers have incentive to compensate for the decrease of their income if it is index-linked to the performance of the firm, thanks to deals that will maximize their own wealth, at the risk of destroying value for their shareholders.

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Almost all the studies so far have focused on deals in which the target is a public firm. There are few studies about the returns associated with the acquisition of non public firms (subsidiaries and privately held firms). Thus, according to us, there is an important lack of knowledge concerning the impact of non public firms acquisitions on the wealth of the bidder's shareholders. This lack is all the more important as the acquisitions of public firms represent a small proportion of the total number of acquisitions. So, most previous studies only deal with a small part of the question.

A recent study has allowed to make up for this lack, at least partially. Indeed, Fuller, Netter and Stegemoller (2002), through a sample made of 3 135 US deals, show that the bidder's shareholders gain when they acquire a privately held firm or a subsidiary, but that they lose when they acquire a public firm. Moreover, they show that these returns depend on the payment method used to finance the deal.

The first aim of this paper is to check whether such results can be obtained on European data or whether these results are due to American data specificities. We find that Fuller, Netter and Stegemoller results (2002) are verified by our European sample. In particular, we confirm the existence of a "non public firms acquisition effect", because the returns linked to acquisitions of non public firms are higher than in acquisitions of public firms. This study also confirms that acquisitions of non public firms financed with stocks result in higher returns than those financed with cash, and that on the contrary, for public firms, the returns of acquisitions financed with cash are higher than the returns of acquisitions financed with stocks. These results are consistent with Chang (1998), Fuller, Netter and Stegemoller (2002).

So, contrary to what we can observe with public firms acquisitions, it seems that non public firms acquisitions have on average a positive impact on the bidders' wealth. The second aim of this paper is to show that this result is in part misleading.

In fact, according to us, the spread of the managers' remuneration in stocks creates an incentive for them to maximize the shareholder's wealth when the market is bullish. Conversely, when the market is bearish, this arrangement can be challenged. Indeed, for the managers whose wages are indexed to the performance of the firm, there is an incentive to compensate for the decrease of their returns when the market is bearish through deals which maximise their own welfare, even if they destroy value for the shareholders. The results presented in this study seem to be perfectly consistent with this hypothesis. Our results can also be interpreted as being consistent with the agency model developed by Amihud and Lev (1981).

This article is structured as follows. The first part reviews the bidders' returns and the link between cycles and mergers and acquisitions. The second part describes the methodology and the data used. Finally, the third part presents the results and the last one concludes.

1. Prior studies on the subject

1.1. Shareholders' returns for bidders that acquire public targets

The returns of the target's and bidder's shareholders have been the subject of many researches since the end of the 1970s. These studies show that the target's shareholders earn important and significant returns (Langetieg, 1978; Jensen and Ruback, 1983; Dennis and McConnell, 1986; Bradley, Desai and Kim, 1988…), and that the total returns, that is to say

the sum of the returns of the bidder's and of the target's shareholders are positive in a large majority of cases (Halpern, 1973; Malatesta, 1983; Bradley, Desai and Kim, 1988; Berkovitch and Narayanan, 1993…).

As far as the bidder's returns are concerned, the results are contradictory. Whereas Langetieg (1978), Dodd (1980), Morck, Shleifer and Vishny (1990), Berkovitch and Narayanan (1993) and more recently Mitchell and Stafford (2000) find that the target's shareholders sustain losses, Dodd and Ruback (1977), Asquith (1983), Malatesta (1983), Eckbo (1983), Bradley, Desai and Kim (1988) find that they have positive abnormal returns. To date, the studies carried out have failed to answer the question.

Moreover, the choice of the payment method seems to have a significant impact on the returns of the deal. Thus, Travlos (1987) shows negative abnormal returns when the acquisition is financed with stocks and zero or positive abnormal returns when the acquisition is financed with cash. Antoniou and Zhao (2004) show that the bidder's returns are lower when the deal is financed with stocks than in a case of an alternative offer, a mixed offer or a cash offer.

1.2. Shareholders' returns for bidders that acquire non public targets

Studies about the returns of the bidder's shareholders during acquisitions of non public firms are very scarce. One of the first studies computing the impact of such a deal was run by Hansen and Lott (1996). Thanks to the auction theory and data concerning the acquisitions of firms, the authors test the hypothesis according to which public firms make a higher offer to acquire another public firm than to acquire a privately held firm. The results presented by the

authors tend to confirm this hypothesis: the returns are two per cent higher when the target is a privately held firm.

Chang (1988) shows that the shareholders of a bidder acquiring privately held firms have positive abnormal returns when the deal is financed with stocks, and have no return when the deal is financed with cash. According to the author, this result can be explained by phenomena linked to monitoring, and by informational phenomena. Indeed, stock offers during the acquisition of privately held firms tend to favour the creation of large blockholders external to the bidder. According to Shleifer and Vishny (1986), blockholders are a good thing for the bidder's shareholders, because they can generate an effective monitoring of the performance or can make the mergers easier, and therefore increase the bidder's value. On the other hand, when the firm offers stocks to acquire firms held privately by a small number of shareholders, the problems of informational asymmetry, described among others by Myers and Maljuf (1984), can be mitigated by the disclosure of private information to the target's shareholders. Chang also explains that a shareholder of a privately held target who owns an important amount of the stocks had better examine the prospects of the bidder with high caution, because at the end of the deal, he will own an important amount of the bidder's stocks. Thus, by accepting a stock offer, the shareholders of privately held firm send a positive signal to the market.

More recently, Fuller, Netter and Stegemoller (2002) have shown that bidders have significantly negative abnormal returns when they acquire public firms, but significantly positive returns when they acquire privately held firms and subsidiaries. When the authors distinguish between the different offers according to the payment methods used to finance the deal, they show that the acquisitions of public targets have non significant negative abnormal

returns when the deal is financed with cash or with a combination of cash and stocks, but have significantly negative abnormal returns when stocks are offered.

Conversely, when the targets are subsidiaries or privately held firms, the bidder's returns are significantly positive, whatever the payment method. The returns of offers on privately held firms and on subsidiaries are higher when financed with stocks than with cash.

According to the authors, this difference in the market's reaction according to the status of the target is due to the creation of blockholders, to a liquidity effect and to taxation. The liquidity effect comes from the fact that private firms and subsidiaries cannot be sold as easily as public firms. This poor liquidity makes these investments less attractive than similar investments. This hypothesis is consistent with Koeplin, Sarin and Shapiro (2000), who show that privately held firms are sold with a significant discount by comparison to public firms. Moreover, when a privately held firm is acquired with cash, the owners of the firm have to face an immediate taxation of their capital gain. Conversely, if theses same owners are offered stocks instead of cash to finance the deal, then taxation is postponed. If the owners find this option attractive, it is possible that they accept an inferior stock price for their firm, equal at the maximum to the value of this option. This could then explain the reasons why the bidders' returns are higher in case of stock offers. For public firms, the results are consistent with Myers and Maljuf's model (1984): a stock offer reveals that the bidder thinks his stocks are overvalued.

Moeller, Schlingemann and Stulz (2003) show that the target's status plays a crucial role in the explanation of the returns of the target's shareholders when the deal is financed with stocks. The returns in the stock-financed acquisitions of privately held firms and subsidiaries are respectively higher of 3.51% and 4.74% than in case of acquisitions of public

firms. For cash offers, bidders of subsidiaries and of privately held firms have higher abnormal returns (respectively of 1.33% and of 0.85%) than bidders of public firms, but once the characteristics of the firm and of the deal are controlled, there is no significant difference in cash offers between privately held firms, public firms and subsidiaries.

1.3. Cycles and mergers and acquisitions

For Lubatkin and Chatterjee (1991), when the market falls, firms can have to face the decrease of growth opportunities and uncertainty concerning returns. During these difficult periods, shareholders and managers can become more risk-adverse than when the market rises. Shareholders will become more sceptical towards growth strategies and will demand a higher opportunity cost of the capital. Thus, as Lubatkin and O'Neill (1987) and Kusewitt (1985) show, when the market falls, managers have an incentive to reduce the number of mergers and acquisitions. Conversely, during periods of growth, as they have some cash and a set of attractive investment opportunities, managers and shareholders can be less risk-adverse and therefore, more willing to pursue growth strategies in the hope of increasing their returns.

Market cycles are also supposed to have an influence on the choice of the payment method used in acquisitions. Thus, for Brealey, Hodges and Capron (1976), Taggart (1977), Marsh (1982) and Choe, Masulis and Nanda (1993), an increase of the general economic activity results in an increase of the probability of a stock offer. According to them, we can explain this phenomenon by the lower cost of adverse selection, by even more promising investment opportunities and by a reduction of the uncertainty concerning the current assets. This hypothesis is in part verified by Martin (1996).

Moeller and al. (2005) do not directly test the impact of the cycles on the shareholder's wealth. However, they show that during the 1991-2001 period, the total losses of the bidder's shareholders represent 216 billion dollars, which represents more than 50 times the 4 billion dollars lost during the 1980-1990 period. They also show that the most significant period of loss is between 1998 and 2001. Thus, after having lost 4 billion dollars during the 1980s, the target's shareholders have won 24 billion dollars between 1991 and 1997, before losing 240 billion dollars during 1998-2001. The authors show that the important losses suffered between 1998 and 2001 cannot be explained by a transfer of wealth between the bidder's and the target's shareholders, since the total gain are in reality losses that reach 134 billion dollars during the 1998-2001 period. The losses suffered between 1998 and 2001 by the bidder's shareholders are due to a few large firms that have undertook deals destroying much value. Thus, 2.1% of the deals have destroyed more than 1 billion dollars of the shareholders' wealth, which corresponds to a cumulated wealth destruction of about 397 billion dollars. The cumulated gains reach 157 billion dollars.

2. Methodology and samples

The information concerning the deal was collected from Thomson Financial. Thanks to this database, we have obtained information about the set of European deals[1] which have taken place between November 1st 1994 and October 31st 2004.

The deals had to meet the following conditions to belong to our sample:

1. The target is a public firm, a subsidiary or a privately held firm.
2. The bidder tries to acquire more than 50% of the stocks.
3. The deal value is one million dollars or more.

[1] Our sample is made of British, German, French, Italian, Dutch and Spanish firms.

4. Acquirers are European firms publicly traded and have five days of return data around the takeover announcement.
5. The acquirer has announced five deals or more in any three year window during the sample period.

We excluded from our study every deal in which the bidder's stock price was below 2 euros, so as to avoid the bid ask bias in the announcement-period abnormal returns. We also rejected all the deals announced by the same bidder when less than five days of quotation separated the announcements, because in such cases, it is impossible to isolate the impact of each deal on the stock price of the firm. Our final sample includes 439 acquisitions of subsidiaries, 109 acquisitions of public firms and 553 acquisitions of privately held firms [2].

We used Brown and Warner's event studies methodology (1985) to compute the cumulative abnormal returns of the period (-2; 2) around the announcement date supplied by Thomson Financial. We computed the abnormal returns thanks to a modified market model. The abnormal returns are defined as the difference between the returns of a firm i (marked r_i) and the returns of the index (marked r_m).

$$AR_i = r_i - r_m$$

Like Fuller, Netter and Stegemoller (2002), we did not compute the market parameters of the period preceding each deal, since for acquirers who make a lot of deals, there is a high probability that the offer is included in the estimation period, which reduces the beta quality. Moreover, it has been shown that for short-window event studies, weighting the market

[2] Our sample clearly illustrates how incomplete are the studies focusing on the acquisition of public firms. In our sample, acquisitions of public firms represent only 10% of the acquisitions.

returns by the firm's betas does not significantly improve the estimation (See Brown and Warner (1980)).

3. Results and comments

3.1. The returns of the bidder's shareholders according to the target's status

The results obtained on our European sample (table 1) are consistent with Fuller Netter and Stegemoller (2002): on average, the bidding firms that acquire public firms make losses, and the ones that acquire privately held firms or subsidiaries make gains. As far as non public firms acquisitions are concerned, results are significantly different from 0 at the 1% level, whereas for public firms acquisitions, the results are not significant. Moreover, abnormal returns for non public firms bidders are significantly higher at the 1% level (t= 2,3948) than for public firms bidders.

3.2. The impact of the stock market evolution on the bidder's returns

On average, a non-public acquisition results in positive abnormal returns. Nevertheless, this result hides important disparities between deals announced when the market is bearish and those announced when the market is bullish. Indeed, for the managers whose wages are indexed to the firm's performance, we think that there is a quite strong incentive to compensate for the decrease of returns when the market is bearish through deals that maximise their own welfare, even if it destroys value for their shareholders. If the personal benefits they get from the deal are higher than the loss of returns generated by the decrease of stock prices associated with the deal, then managers can be incited to make wealth-destroying deals.

Table 2 obviously shows that there is a relationship between the abnormal returns generated by the announcement of a non public deal and the profitability of the index[3]. Indeed, when the index performance is high, the average abnormal returns are high too. Conversely, the years in which the index performance is low are the ones during which the average abnormal returns are also low. Because of that, the years 1998 and 2000 are very interesting to study because they have had both bearish and bullish periods (table 3). During bullish periods of 1998 and 2000, we show that abnormal returns are higher than in bearish periods (particularly in 2000, because the abnormal returns are significantly different at the 5% level).

To test this hypothesis further, we have parted our European sample into three sub-samples: first, we have put the deals whose date of announcement is prior to September 7th 2000, in a second sub sample we have put the deals announced between September 7th 2000 and December 31st 2002 and in a third sub sample we have put the deals announced after December 31st 2002. This partition allows us to study the impact of the stock market evolution on the deals' returns. Indeed, as shown on the following graph, the end of the 1990s is characterised by a relatively continuous growth of the index, on the contrary, the beginning of the 2000s is characterised by a relatively continuous decrease of the index, whereas since the beginning of 2003, the market seems to be hesitant.

Table 4 shows that the non-public firms acquisitions announced when the market is bullish (that is to say those announced before September 7th 2000) have higher returns than those announced when the market is not bullish (bearish and hesitant market). Conversely, acquisitions of non-public firms announced when the market is bearish (that is to say, those

[3] The regression explaining the average abnormal returns a year thanks to the yearly profitability of the index shows a relationship significant at the 10% level.

announced between September 7th 2000 and December 31st 2002) have significantly lower returns than those announced when the market is not bearish (bullish and hesitant market). In our sample, the means are in both cases statistically different at the 5% level.

Many authors have underlined the importance of the choice of the payment method to explain the returns of mergers and acquisitions. But, as Andrade, Mitchell and Stafford (2001) show, the frequency of use of the payment method is not homogeneous as time goes by. Indeed, they show that the frequency of use of stocks is higher in the 1990s (where almost 70% of the deals are financed partially with stocks and 58% only with stocks) than in the 1980s (respectively only 46% and 33%). So, the comparison of the various returns of mergers and acquisition is meaningful only if we cancel the impact of the choice of the payment method. This study is the object of the next section.

3.3. The stock market evolution and the payment method chosen to finance the deal

3.3.1. The returns of the bidder's shareholders according to the target's status and the payment method

Table 5 confirms the impact of the choice of the payment method as a factor accounting for the returns observed around the announcement of the deal, and the results presented in it are consistent with Fuller, Netter and Stegemoller (2002). Indeed, the returns of acquisitions of privately held firms are weaker when the deal is financed with cash than when it is financed with stocks. Moreover, this study confirms that the acquisitions of subsidiaries in stock have higher returns than those financed with cash. On the contrary, and in accordance with prior studies, it seems quite clear that the cash acquisitions of public firms in the European sample result in higher returns than those in stocks.

On the other hand, it is interesting to notice that whatever the payment method chosen to finance the offer, the acquisitions of subsidiaries and privately held firms have positive returns. This result is consistent with Fuller, Netter and Stegemoller (2002). By contrast, the acquisitions of public firms financed with stocks or with loan note have negative returns.

3.3.2. The bidder's returns according to the target's status, the payment method and the market evolution

As table 6 shows, the impact of the stock market evolution is particularly strong when the deal is partially financed with stocks: the market reaction is largely positive when the market is bullish (+2.69%) and it is negative when the market is bearish (-1,18%). The difference is significant at the 1% level. A very close result can be obtained concerning stocks-only acquisitions. Moreover, the market evolution seems to impact the returns associated with the announcement of a deal financed with cash. When the deal is financed with cash only or in part, it appears that the returns are significantly higher (respectively at the 10% and at the 5% level) when the market is bullish.

This impact is also verified for deals partially financed with liabilities and for those partially financed with earnouts, but does not seem significant from a statistical point of view (certainly because of the moderate number of observations concerning these payment methods). On the contrary, deals financed with loan notes do not seem to be influenced by the stock market evolution (this result also has to be taken with caution, given the small number of deals financed with this payment method).

The results presented in table 6 are consistent with the idea according to which managers try to maximise their own welfare when the market is bearish. Thus, Shleifer and

Vishny (1988) notice that on some occasions, managers can act contrary to the principle of maximisation of the shareholder's wealth. Indeed, it is not rare to see managers opposed to the hostile takeover of their firm, while this deal could be beneficial to their shareholders. Besides, the managers who performed poorly are more inclined to resist to the offer when they realize that they will have to negotiate to have a job or that they will have to find one somewhere else. This hypothesis has been tested and verified by Kummer and Hoffmeister (1978), who show that a firm whose management resists to takeovers makes weaker performances before the deal. Walking and Long (1984) also present results that show that the decision to contest a tender offer is linked to changes of the manager's personal wealth.

Moreover, if the firm is in a declining sector, the manager can be incited to move towards sectors where the growth is higher. Thus, it is not rare to see managers who invest in such sectors without any particular knowledge in these fields, while it would have been more profitable for the shareholders to get free cash flows. The maximisation of the shareholders' wealth is therefore not the only goal for the manager, as he can also take into account his own welfare.

In other words, Shleifer and Vishny (1988) think that the bidders' negative returns can be explained by their managers' will to pay for personal perks that have no value for the shareholders. We share this view, but we think that this incentive is even stronger when the market is bearish, because managers want to compensate to the maximum for the income loss.

Finally, this result can also be interpreted as being consistent with the agency model developed by Amihud and Lev (1981). According to their model, managers do conglomerate mergers to reduce their human capital risk. The income coming from the managers' work generally constitutes a large part of their total income. Moreover, a manager's income being

more and more often linked to the firm's performance through bonuses and stock options value, the risk associated to a manager's income is linked to the firm's risk. A manager who does not reach his performance objective may lose his job, which will harm his future job and his future income. So, risk-adverse managers will diversify their employment risk through other means, and in particular through conglomerate mergers so as to stabilize the income streams and avoid the bankruptcy risk. But when the market falls, the firm is also less likely to have good performances. Thus, when the market is bearish, risk-adverse managers will be particularly incited to carry out conglomerate mergers, or more generally deals that are not beneficial for the investors.

3.4. Stock Market evolution, non public firms and payment method

The aim of this part is to study in details the impact of the stock market evolution on the returns of non-public firms acquisitions. This analysis is made up of three successive steps. The first one consists in determinating the payment methods which influence the abnormal returns during the acquisition of non public firms and to check whether the stock market evolution has an impact on the abnormal returns, thanks to a regression.

During the second step, the payment methods which have a different impact according to the stock market evolution are studied thanks to a regression where variables are grouped together. The third step relies on the regression of the sub samples. The aim is then to determine the variables that have a significant impact in every sample.

3.4.1. Results of the multiple regression

In order to determine the payment methods that influence the returns at the announcement of a privately held firms' acquisition, the abnormal returns have been regressed according to the different payment methods and according to the fact that the deals have been announced when the market is bearish or when it is bullish. The main results are copied out in table 7.

The first regression shows that a certain number of variables do not seem to play a significant role to explain the abnormal returns. Only the use of loan notes seems to have a significant impact. This study confirms also the impact of the stock market evolution on the abnormal returns. Regressions 2, 3 and 4 show that in fact numerous payment methods have a significant impact on the abnormal returns. For example, deals financed with cash only have a positive impact on the abnormal returns, but are significantly less wealth creating than deals that are not financed with cash. Loan note and stock deals seem also to have a positive impact on the abnormal returns, but conversely they are significantly more wealth creating than deals that are not financed with these payment methods. Once again, these regressions show that for non public firm acquisitions, stock market evolution seems to have a significant impact on the abnormal returns.

3.4.2. Results of the regression where variables are grouped together

The aim of this part is to present the results from the regression where variables are grouped together. According to Gujarati (2003), the advantage of this methodology is that it creates a differential offset α_2 and a differential directing coefficient β_2. In fact, we obtain $E(AR_t/A_t=0, M_t)= \alpha_1+\beta_1 M_t$ and $E(AR_t/A_t=1, M_t)= (\alpha_1+\alpha_2)+(\beta_1+\beta_2)M_t$ for each payment method M_t if we suppose that $E(u_i)=0$.

The results, we obtain with this methodology (table 7) show that the differential offset α_2 is significant for every payment we study (except for liabilities and earnouts). More interestingly, we can observe that the differential directing coefficient β_2 is particularly significant for stocks deals (stock only or not) and significant for cash only deals. In other words, we observe that the use of stocks and to a lesser extent the use of cash do not have the same impact when the market is bullish than when it is bearish.

3.4.3. The sub sample regression

The last step of our analysis relies on the regression of the sub samples (table 8). The main idea is to study to what extent a given payment method influences the abnormal returns when the market is bearish and when it is bullish.

This study shows that cash and cash only deals results in higher abnormal returns when the market is bullish (respectively +1,40% and +1%) than when it is bearish (respectively +0,57% and +0,55%). When the market is bullish, we can also observe that abnormal returns are significantly lower when cash is offered (significant at 5% level) than when not and also that abnormal returns are also significantly lower when cash only is offered (significant at 10% level) than when not. However, whatever the evolution of the stock market (bullish or bearish), in each case the abnormal returns are on average positive when the deal is financed with cash or cash only.

This is not the case for stocks and stocks only deals. In both cases, when the market is bullish, abnornal returns are positive and significantly higher when these payment methods

are used, but when the market is bearish, abnormal returns are negative and significantly lower. This result is particularly noteworthy and confirms the previous regression which shows that stock deals may have a different impact on the abnormal returns according to the stock market evolution.

3.5. Commentary of the results

These results are consistent with the idea according to which when the market is bearish, managers will compensate for the decrease of their incomes by deals that maximize their own welfare, even if it destroys value for their shareholders. Indeed, a cash offer allows the actual shareholders to retain the whole futur returns. Conversely a stock offer allows to allocate a part of the potential losses to the new shareholders. So, a manager whose aim is to maximise the wealth of his shareholders will undertake a cash only deal, whereas he will undertake a stock offer if he is carrying on a wealth destroying deal. Moreover, as Jung and al. (1996) argue, a manager who invests in a project whose Net Present Value (NPV) is negative will prefer to finance this acquisition by stocks, because a debt payment for a negative NPV project may reduce the amount of resource under the manager's control, since the present value of repayments exceeds the present value of the flows generated by the project.

In other words, the nagative impact on the stock price will be lower if the manager uses stocks rather than cash when he is financing a wealth destroying deal. The manager will have all the more interest to use stocks because in this case, the negative impacts on his own wealth and on the wealth of his shareholders will be lower.

Another explanation could also be consistent with our results. In a recent non published study, Antoniou Petmezas and Zhao (2005) show thanks to British data that the "non public" effect is only verified in the short run. In the long run bidders suffer large wealth losses whatever the target's status, which could indicate that the markets react excessively to the announcement of an offer. This result is reinforced by Rosen (2006), for which three theories allow to explain mergers and acquisitions. The neo-classical one suggests that managers act in the shareholder's interest. In this case, there should be a positive reaction in the short run and no readjustment in the long run. The second one, the managerial theory, assumes that mergers can be motivated by manager's private interests. In this case, there should be a negative reaction in the short run and no readjustment in the long run. Finally, the overoptimism theory stipulates that a group of investors will become excessively optimistic about the announcements of deals during a particular period of time (see Helwege and Liang (2004) for a study on IPO). Thus, the investors could become overoptimistic concerning mergers and acquisitions. In this case, we should observe a positive impact in the short run and prices should reverse in the long run as optimism is replaced by results. The empirical study of Rosen (2006) is consistent with the third hypothesis and is verified both for public firms and non public firms sub samples.

Moreover, they confirm our results according to which the stock market evolution has an impact on abnormal returns. However, the effect disappears in the long run. This result is therefore consistent with overoptimism in hot markets but not consistent with our hypothesis according to which managers realise wealth-creating deals when the market is bullish and wealth-destructing deals when the market is bearish.

However, from British data, Conn, Cosh, Guest and Hughes (2005) show that the post acquisition performance is not significant in the long run for non public firms acquisitions and Higson and Elliott (1998) show that bidders have no abnormal returns during the three years following the deal, but on shorter period, they highlight groups with positive abnormal returns and groups with negative abnormal returns. Thus, for sub sample of deals announced between 1981 and 1984 (which is a growth period according to the authors), the abnormal returns are positive and reach 26% for the two years following the deal. For value weighted abnormal returns, the post acquisition abnormal returns are not significantly different from 0 most of the years, and are even more positive in the early 1980's. These results are therefore inconsistent with the overoptimism hypothesis and are consistent with our explanation.

Future studies dealing with this issue will have to determine, according to the stock market evolution, whether non public firms acquisitions have a positive, a negative or no impact on bidders shareheolder's wealth in the long run. This would allow to determine whether the higher abnormal returns observed when the market is bullish than when it is bearish are due to overoptimism or, as we suggest, to agency phenomena.

3.6. Summary and conclusions

This paper studies the bidder's returns according to the target's status. Fuller, Netter and Stegemoller results (2002) are by and large verified by our European sample[4]. In particular, we confirm the existence of a "non public firms acquisition effect", because the returns linked to acquisitions of non public firms are higher than in acquisitions of public firms.

[4] The recent studies carried out by Conn, Cosh, Guest and Hughes (2005), Antoniou, Petmezas and Zhao (2005), Draper and Paudyal (2006) and Martynova and Renneboog (2006) also allow to confirm these results. These studies have been run simultaneously to ours.

This study also confirms that acquisitions of non public firms financed with stocks result in higher returns than those financed with cash, and that on the contrary, for public firms, the returns of acquisitions financed with cash are higher than the returns of acquisitions financed with stocks. These results are consistent with Chang (1998), Fuller, Netter and Stegemoller (2002).

Our European sample also confirms in large part our idea according to which the returns linked to operations announced when the market is bullish are higher than those linked to operations announced when the market is bearish. In particular, bidders of non public firms have significantly higher returns when the market is bullish than when it is bearish.

This is due to the fact that the use of cash or of stocks is significantly less value-creating when the market is bearish than when it is bullish. According to us, this result can be related to agency phenomena, and is consistent with Shleifer and Vishny (1988) and Amihud and Lev (1981). It is interesting to notice that the effect is particularly significant for operations financed with stocks.

This result can be explained by the fact that managers have incentive to carry out operations that are not consistent with the shareholders' maximization of profit when the market is bearish.

Indeed, in this case, managers can try to compensate for the reduction of their income or try to reduce the risk associated with their human capital. They will then undertake operations that maximize their own welfare, even if they destroy value for their shareholders. Since their objective is no longer the maximization of their shareholders' wealth, these operations can result in destruction of value. It is then in the managers' interest to use stocks, because this payment method allows to transfer losses to the new shareholders, and therefore to limit the negative impact on the stock price of the firm they run.

Another plausible explanation is given by Rosen (2006). According to him, we can explain the higher abnormal returns when the market is bullish by overoptimism. Indeed, he shows that the "non public" effect is only verified in the short run and that in the long run, bidders suffer large wealth losses whatever the target's status. However, since this result is contradicted by different studies and in particular by Conn, Cosh, Guest and Hughes (2005),

more results concerning this issue are needed to corroborate either the overoptimism hypothesis or our managerial hypothesis.

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APPENDIX

	Europe
Subsidiaries	**1,0660%*** t=4,6347 (630)**
Public firms	**-0,0402% t=-0,0686 (196)**
Private firms	**1,3618%*** t=4,8276 (682)**

(*: The results are significantly different from 0 at the 1% level)**

Table 1 : Returns of the bidders according to the target's status.

	1994	**1995**	**1996**	**1997**	**1998**	**1999**
Abnormal returns	-0,6807%	0,2828%	1,8612%	1,6912%	1,2719%	1,8528%
Index profitability (DJ STOXX)	-0,3188%	13,4973%	20,9048%	37,6394%	18,4584%	35,8655%
Number of deals	7	43	83	147	199	219
	2000	**2001**	**2002**	**2003**	**2004**	**TOTAL**
Abnormal returns	0,9497%	1,3359%	0,2597%	1,0537%	0,1721%	1,2278%
Index profitability (DJ STOXX)	-4,7393%	-16,9710%	-32,4798%	13,6870%	4,7939%	91,5375%
Number of deals	258	139	89	74	50	1312

Table 2 : Abnormal returns, index profitability and number of non public acquisitions by year.

Bullish period of year 2000	**Bearish period of year 2000**	**Bullish period of year 1998**	**Bearish period of year 1998**
1,8962**	-1,0113**	1,8675	0,7381
126	53	123	27

: The means are significantly different at the 5% level according to the deals took place in a bullish or in a bearish period.

Table 3 : Number of deals and abnormal returns for 1998 and 2000 according to the fact that the market was bearish or bullish.

	Bullish market (before 09/07/2000)	Bearish market (between 09/07/2000 and 12/31/2002)	Hesitant market (after 12/31/2002)	Total
Non public firms	**1,5477%** (883)**	**0,5169%** (305)**	**0,6982% (124)**	**1,2278% (1312)**

(: There is a significant difference at the 5% level)**

Table 4 : The bidders' average returns according to the target's status and the evolution of the stock market

	Private firms	Subsidiaries	Public firms
Cash only	0,7507%** t=2,4159 (370)	0,9176%*** t=3,9705 (505)	0,4159% t=0,5190 (85)
Partially in cash	1,3852%*** t=4,7566 (622)	0,8591%*** t=3,9021 (615)	0,1079% t=0,1802 (166)
Partially in liabilities	1,5851% t=1,6673 (59)	0,9075% t=0,8963 (47)	1,2618% t=0,8897 (24)
Partially in common stocks	2,2617%*** t=3,1742 (194)	3,5461%** t=2,5015 (40)	-1,4219% t=-1,2422 (70)
Common stocks only	1,0196% t=0,6111 (31)	10,4451%*** t=3,4778 (12)	-1,0732% t=-0,5269 (29)
Partially in earnouts	1,8421%** t=2,3040 (127)	0,2130% t=0,1780 (33)	2,2269% t=0,3659 (2)
Partially in loan note	4.5573%** t=2,6474 (43)	0,1902% t=0,1606 (6)	-2,3747% t=-1,4119 (29)

**** and ***: The results are significantly different from 0 at the 5% and 1% level (respectively)**

Table 5 : The bidder's returns according to the target's status and the payment method used

	Bullish market	Bearish market	Hesitant market	Après le 07/09/2000
Cash only	**1,0128%*** **(647)**	**0,1672%*** **(207)**	**0,8547%** **(105)**	**0,3986%** **(312)**
Partially in cash	**1,2511%**** **(952)**	**0,3570%**** **(319)**	**0,8036%** **(130)**	**0,4863%** **(449)**
Partially in liabilities	**1,3377%** **(96)**	**1,2106%** **(24)**	**0,8981%** **(10)**	**1,1187%** **(34)**
Common stocks only	**2,5689%**** **(53)**	**-2,1601%**** **(22)**		**-2,1601%** **(22)**
Partially in common stocks	**2,6893%***** **(214)**	**-1,1843%***** **(82)**	**2,0886%** **(6)**	**-0,9611%** **(88)**
Partially in earnouts	**1,8814%** **(91)**	**1,0596%** **(57)**	**0,8092%** **(11)**	**1,0191%** **(68)**
Partially in loan note	**1,0775%** **(51)**	**2,8942%** **(25)**	**2,7103%** **(1)**	**2,8871%** **(26)**

(*There is s significant difference at the 10% level)
(There is a significant difference at the 5% level)**
(*There is a significant difference at the 1% level)**

Table 6 : Impact of the stock market evolution according to the payment method chosen to finance the deal

	1	2	3	4
cash only	-.0118621 t=-1.433	-.015199** -2.543	-.0181154*** -3.266	
Cash	-.0171599 t=-1.520	-.0111255 -1.307		
liabilities	-.0104409 t=-1.122	-.0122627 -1.511	-.0144602* -1.821	
action only	-.0156978 t=-1.047			
Action	.0076778 t=1.035			.0150349*** t=3.108
earnout	-.0123729 t=-1.577	-.0111889 -1.573	-.0124367* -1.764	
loan note	.0205102** t=1.973	.0214147** 2.121	.0209446** 2.075	.0260733*** t=2.681
Date	.0014728 t=0.998	.0014771 1.001	.0015245 1.033	.0013721 0.932
Date * D1	-.002119** t=-2.407	-.0021273** -2.417	-.0021473** -2.440	-.0021373** -2.432
Date * D2	-.0014226 t=-1.323	-.00146 -1.361	-.0015187 -1.416	-.0014051 -1.309
Constante	.0340583** t=2.248	.0313951*** 3.092	.0230382*** 2.920	.0061185 0.946

Note : the results presented in this table come from the following regression :
$AR=\beta_1+\beta_2C+\beta_3C'+\beta_4L+\beta_5A+\beta_6A'+\beta_7E+\beta_8N+\beta_9D+\beta_{10}\ D*D1+\beta_{11}\ D*D2$
Où AR is the abnormal return of the deal, C=1 if cash is used and 0 otherwise, C'=1 if only cash is used and 0 otherwise, L=1 if liabilities are used and 0 otherwise, A=1 if stocks are used and 0 otherwise, A'=1 if only stocks are used and 0 otherwise, E=1 if earnouts are used and 0 otherwise, N=1 if loan notes are used and 0 otherwise, D= 0 if the deal is announced in 1994, 1 if the deal is announced in 1995… et 10 if the deal is announced in 2004, D1=1 if the deal is announced between September 7th 2000 and December 31st 2002 and 0 otherwise and D2=1 if the deal is announced between January 1st 2003 and October 31st 2004.

Table 7 : Results of the multiple regression concerning non-public firms acquisitions.

	α_0	β_0	α_1	β_1
Cash only	.0265257*** 6.551 0.000	-.0165348*** -3.338 0.001	.0061639 1.261 0.208	-.0007113 -0.118 0.906
Cash	.0377842*** 3.994 0.000	-.0237597** -2.434 0.015	.0062467 0.498 0.619	-.0005836 -0.045 0.964
Liabilities	.0155042*** 6.307 0.000	-.0003026 -0.037 0.971	.0056517* 1.923 0.055	.0006329 0.055 0.956
Stocks only	.0146479*** 6.126 0.000	.0209294* 1.743 0.082	.006466** 2.247 0.025	-.0255083 -1.543 0.124
Stocks	.0103386*** 4.033 0.000	.0281842*** 4.694 0.000	.0082576*** 2.660 0.008	-.0150715** -2.003 0.046
Earnouts	.0151122*** 6.106 0.000	.0036246 0.465 0.642	.0048367 1.560 0.119	.0053236 0.689 0.491
Loan note	.0144729*** 6.087 0.000	.0316811*** 2.373 0.018	.0043225 1.491 0.137	.0279978** 2.137 0.033

Note: the results presented in this table come from the following regressions:

$$AR_0=\alpha_0+\beta_0 M$$
$$AR_1=\alpha_1+\beta_1 M$$

Where AR_0 is the abnormal return of a deal announced before September 7th 2000, AR_1 is the abnormal return of a deal announced after September 7th 2000, M is a given payment method. This variable is equal to 1 if this payment method is used in the deal, and equal to 0 otherwise.

Table 8: Results of the sub-samples regressions concerning non-public firms acquisitions.

	α_1	α_2	β_1	β_2
Cash only	.0265257*** 6.872 0.000	-.0165348*** -3.501 0.000	-.0203618*** -3.035 0.002	.0158235* 1.922 0.055
Cash	.0377842*** 4.193 0.000	-.0237597** -2.555 0.011	-.0311191* -1.887 0.059	.0227326 1.340 0.181
Liabilities	.0155042*** 6.626 0.000	-.0003026 -0.038 0.969	-.0098525*** -2.428 0.015	.0009355 0.062 0.951
Stocks only	.0146479*** 6.438 0.000	.0209294* 1.831 0.067	-.0081819** -2.063 0.039	-.0464377** -2.122 0.034
Stocks	.0103386*** 4.228 0.000	.0281842*** 4.922 0.000	-.002081 -0.489 0.625	-.0432557*** -4.241 0.000
Earnouts	.0151122*** 6.416 0.000	.0036246 0.489 0.625	-.0102754** -2.437 0.015	.0016989 0.148 0.882
Loan note	.0144729*** 6.399 0.000	.0316811** 2.494 0.013	-.0101504** -2.551 0.011	-.0036833 -0.189 0.850

Note: the results presented in this table come from the following regression:

$$AR_t= \alpha_1+\alpha_2 A_t+\beta_1 M_t+\beta_2(A_t M_t)+u_t$$

where AR is the abnormal return of the deal , A_t=0 if the deal is announced before September 7th 2000 and 1 otherwise, and M_t is a given payment method. This variable is equal to 1 if this payment method is used in the deal and 0 otherwise.

Table 7: Results of the regression where variables are grouped together concerning non-public firms acquisitions.

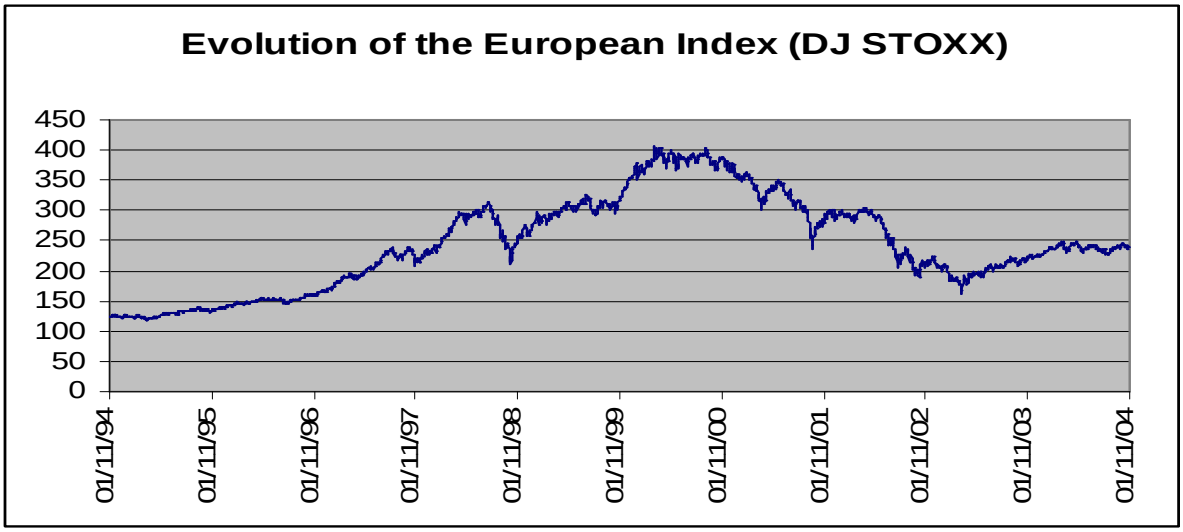

Figure 1 : European stock index evolution between 11/01/1994 and 11/01/2004