Abnormal returns in the Japanese acquisition market

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Abstract

This thesis focuses on abnormal returns on the bidders side of the Japanese acquisitions market. The Japanese market is of particular interest because it is the second largest economy in the world, but despite this, the amount of research regarding abnormal returns for Japan is limited. In addition to its economical importance, Japan has specific cultural characteristics and important corporate differences from the western world. This thesis adds to the literature by providing evidence that no significant abnormal Japanese bidder returns can be achieved. This is by the means of the largest sample until now and the most recent data. The sample is from after the regulatory changes of the late nineties and includes the regulatory changes of 2007. The zero abnormal returns contradict the general conclusion of previous literature of significant positive abnormal Japanese bidder returns. In addition, it is proven that the control factors are insignificant except Tobin's q ratio, which has a constant significant negative influence on the CAR. The results implicate that for Japanese companies to endeavor on the acquisition path this does not yield extra returns, but at the same time, they also do not lose on an acquisition which could point in the direction of the hubris theory and/or a more efficient operating Japanese market. The regulatory changes of 2007 succeed in promoting acquisitions as the post 2007 period, in comparison to the pre 2007 period, has an increase of 376% in the amount of acquisitions.

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1. Introduction

Japan is a special country which cannot be easily classified. It has been a modern, developed country for the better part of the time period since the second world war. Japan distinguishes itself from the western world by many unique characteristics, rules and customs. Mergers and acquisitions are traditionally not a common phenomenon. For example, in the financial sector mergers and acquisition were almost nonexistent from the second world war until the early nineties (Sibbitt, 1998). Besides the fact that Japan historically has seen much fewer takeovers, this second largest economy of the world has been studied very little (Pettway and Yamada, 1986). Rules, regulations and traditions hindered mergers and acquisitions to take place. Combined with a lack of competition this can lead to inefficient and, on the long term, unsustainable companies. The traditional Keiretsu structure had run its time by the nineties, which became painfully clear in the economical crisis of that era which concluded the rapid economical development that had typified Japan since the second world war. As a consequence, the government was forced to rethink its regulations regarding mergers and acquisitions and accounting. In the late nineties, regulation changes were implemented in 'the big bang' (Sibbitt, 1998). However, some differences between regulation for domestic versus foreign companies are still in place (Higgins and Beckman, 2006). The change in regulation and deregulation did not stop with 'the big bang' of the nineties as additional regulation changes were made in 2007 (Masujima, 2008).

Compared to the western world, and more specific the United States, not much research has been done regarding mergers and acquisitions and abnormal returns for the Japanese market in the past. However, one could expect higher merger and acquisition activity after the nineties, because of 'pro' mergers and acquisitions legislation that was implemented in this period in time. Some preliminary research has been done by Higgins and Beckman with intriguing results. They found no abnormal returns in the pre-legislation change period (1990-1998), but significant positive abnormal returns for the domestic bidders in the post-legislation period (1999-2000). Besides the research of Higgins and Beckman, other studies regarding the Japanese markets in different time periods indicate significantly positive abnormal returns. The significant and positive abnormal returns for the Japanese acquisition market are a direct contradiction of the general conclusion about abnormal returns for bidders in the western world, more specifically the United States, which tend to be zero or negative. These facts and differences raise several questions which lead to the main question of this thesis:

Do Japanese bidders have significant, positive cumulative abnormal returns around the announcement date?

The question is translated into the null hypothesis: the Japanese bidders do not have a cumulative abnormal return that is significantly different from zero. In addition, this question will be asked for the subgroups domestic and foreign besides the total bidder group.

Subsequently to the main question of this thesis a second question is raised. The aim of the legislation changes of the nineties was to improve transparency and encourage mergers and acquisitions. With future legislation changes within this same line of thinking in early 2007, the question is asked whether the legislation changes did in fact encourage and improve the market for mergers and acquisitions.

The methodology of this thesis will include an event study of cumulative abnormal returns (CAR) of the three day event period around the announcement day of the acquisition with the focus on the bidder. The data for indentifying the companies that were involved in an acquisition transaction during the sample period of this thesis, which runs from the first of January until the first of August 2008, is retrieved from marketlineinfo.com. The reason for the focus on the bidder is that there is consensus that the target companies yield a positive abnormal return and the results on the bidder's side are more ambiguous and debated (Jarrell and Poulsen, 1989). Furthermore, there are economical sound reasons to believe that target abnormal returns will be positive for the simple fact that if the bidder is not willing to pay more than the target is worth now, why would the owner be willing to sell? This it is more complicated for the bidder. There can be company value increasing motives for the bidder to initialize a merger or an acquisition, like for example synergy advantages. Nevertheless, in addition to economically sound motives, some dubious reasons to initialize a merger or acquisition exists as well, such as empire-building or diversification motives, also the managers could be misjudging the situation or market (the hubris motive). Therefore, in addition to the calculation of the CAR and tests whether these results are significantly different from zero, regressions will be performed to control for other possible influences that historically have come up in the literature or are economically sound such as the factor size, leverage, private versus public target, domestic versus foreign, 100% acquisitions, majority acquisitions and minority acquisitions, Tobin's q ratio, growth and confidence.

The results point out, based on the three day CAR, that no significant abnormal returns could be achieved for the Japanese bidders. The data does provide evidence that the regulatory changes of 2007 succeeded in promoting acquisitions, as the amount of acquisitions of the post-2007 period compared to the pre 2007 period increased with 376%. The different control factors all show insignificant results except Tobin's q ratio, which yields a significantly negative influence on the CAR.

This thesis continues with chapter 2: 'Literature', in which first the main motives, sound or dubious, are presented in order to get a good understanding of the issue underhand. Contiguous, the results regarding abnormal returns in the literature are presented and a description of the

Japanese market and culture will be given. Chapter 3: 'Methodology & Data' will present the methodology and the data selection procedure. In addition, in this chapter the selected control variables will be presented. In Chapter 4: 'Empirical results and discussion', the results, following the methodology of chapter 3 will presented and evaluated. Chapter 4 concludes with a description of the limitations of this research, furthermore some possible focus points of future research are mentioned. Chapter 5: 'Conclusion' will conclude this thesis.

Some remarks: The words acquisition, takeover or merger will be alternately used in this thesis because the most important fact for this thesis is that control is transferred and not the way the deal is defined. This is also because in certain cases it is hard to distinguish a merger from an acquisition. The KLM-AirFrance deal is a good example of this because it is called a merger, but is it not in fact a acquisition? Furthermore a note that when it is written in this thesis that a result is significant or not significant, one should read this as that the result is or is not significantly different from zero.

2. Literature

In this chapter the relevant literature is outlined to get a better understanding of the broader theoretical framework in which this thesis is operating. In section 2.1, the theoretical framework of why acquisitions are pursued in the first place, in combination with comments on different aspects of the theory, is given. Following this framework abnormal returns will be discussed and evidence will be presented in section 2.2. In section 2.3 the Japanese market and culture is described. Moreover, interesting regulation changes that could have a profound influence on the results of this thesis are pointed out. This chapter will conclude with section 2.4 in which the literature regarding abnormal returns in Japan is discussed and the differences between and points of consensus in the literature are highlighted.

2.1 Why are acquisitions initialized?

Why are acquisitions initialized in the first place? Why not development by internal growth for example? Obviously, because people think there is an advantage to be gained, but which advantages are there and how are these advantages to be exploited? Moreover, are the advantages also really advantages? Derived from the agency-principal theory (Jensen, 1986) not all advantages indentified are in fact advantages for the shareholders, but happen solely because, for example, the manager is interested in empire building and therefore focuses on the manager's own interests (Berkovitch and Narayanan, 1993, Trautwein, 1990).

There have been numerous articles about mergers and acquisitions and their consequences, however, much less attention is paid to the theoretical framework. Articles tend to solely try to explain the results that are found, but do not really focus on the broader theory. Despite the fact that authors of papers often try to indentify a single motive for the initialization of a takeover, mergers and acquisitions are driven by a complex pattern of motives, and as a result no single argument can be singled out as the main cause of mergers and acquisition (Ravenscraft and Scherer, 1987, Steiner, 1975, Trautwein, 1990). To be able to get a good understanding of the topic underhand, a general overview of the theory behind the motives of the merger and acquisition market that is available is accordingly needed to comprehend the complexity and the different facets of mergers and acquisitions.

For a merger or acquisition a distinction between two main groups of motives, the shareholder's motives and the manager's motives, is made. The first group approaches the motives from the perspective of the shareholders and the gains to be made for this group. The second group approaches the motives from the managerial perspective and their interests. A further subdivision of five groups can be made to which five theories are assigned; respectively the efficiency theory, the monopoly theory, the raider theory, the valuation theory and the empire-building theory (Trautwein, 1990), as is shown in table 2.1: Acquisition motives and theories.

Table 2.1: Acquisition motives and theories

Acquisition motives and theories			
Merger as rational choice	Merger benefits bidder's shareholders	Net gains through synergies	Efficiency theory
		Wealth transfers from customers	Monopoly theory
		Wealth transfers from target's shareholders	Raider theory
		Net gains through private information	Valuation theory
	Merger benefits managers		Empire-building
Merger as process outcome			Process theory
Merger as macroeconomic phenomenon			Disturbance theory

Source: Trautwein (1990)

According to Berkovitch and Narayanan there are only three main motives for takeovers, namely synergy, agency and hubris (Berkovitch and Narayanan, 1993). Seth, Song and Pettit make a more or less corresponding classification (Seth, Song and Pettit, 2000). In addition to the classification of the motives, Bertkovitch and Narayanan state that the empirical evidence, available in the beginning of the nineties, is not able to provide a clear distinction between the three motives (Berkovitch and Narayanan, 1993). The different opinions in various articles and the different starting points of reasoning in the literature illustrate that there is no unambiguous list of takeover arguments. Hence, a comprehensive list of the most important arguments and some conspicuous motives are described to give a thorough overview of the literature. This implies that in this chapter arguments and motives are described, besides the ones that are used to explain the results of this thesis, that cannot or will not be researched in the data set but are described in this chapter solely for the purpose of comprehensiveness. Evidently sound as well as some dubious reasons for acquisitions are together discussed for the purpose of exhaustiveness. After the outline of the theoretical motives in the first part of 2.1 (2.1.1 until 2.1.7), a supplementary part of section 2.1 will focus on a strategical reason to initiate a takeover that is not covered by the theoretical motives in the first section. The strategical decision process regarding direct entry versus a takeover is described in 2.1.8. In addition, the signaling hypothesis will be briefly discussed in section 2.1.9.

2.1.1 The efficiency theory

The efficiency theory is based on the synergy argument which is much used throughout the literature as a motive for acquisitions (Agrawal and Jaffe, 2003, Berkovitch and Narayanan, 1993, Bradley, Desai and Kim, 1988, Jensen and Ruback, 1983, Trautwein, 1990). The synergy

argument is appealing because there are some examples of mergers in which great synergy advantages were actually achieved, such as the Chevron and Texaco case in which costs were cut by $ 1.8 billion per year, or the Compaq Computer corporation acquisition by Hewlett-Packard which resulted in a saving of $ 3 billion within nine months (Brealey and Myers, 2006). Trautwein indentifies three different synergy arguments: financial synergies, operational synergies and managerial synergies. Financial synergies are aimed at reducing the costs of capital. This can be achieved by lowering the financial risk profile of the company, increasing a company's size or by establishing an internal capital market in which information is more widely available. Operational synergies are, amongst other things, aimed at achieving economies of scope by for example combining sales departments of two firms. Managerial synergies aim at improving the target results by increased monitoring and superior planning by the bidder's management (Trautwein, 1990).

Berkovitch and Narayanan state that if an acquisition has a positive total gain (target and bidder gain combined), the synergy motive is the primary motive. Moreover Berkovitch and Narayan argues that the synergy motive assumes that managers of targets and bidder will maximize shareholder wealth and therefore an acquisition will only take place when the target as well as the bidder has positive gains (Berkovitch and Narayanan, 1993). Jensen and Ruback claim that takeover gains stem from the synergy effect, but they cannot support their claim with evidence (Jensen and Ruback, 1983). On the other hand, Trautwein argues that financial synergies are impossible to achieve in an efficient capital market (Trautwein, 1990). Kitchen and Porter argue that there is no proof to support the operational synergies and managerial synergies argument (Kitching, 1967, Porter, 1987). If synergy is the most significant reason to initiate an acquisition, it is expected that the target company absorbs part of the gains, because the target will otherwise pretend or will actually resist being taken over. Besides this, it could be the case that a competing bidder could duplicate the synergy gains and as a consequence the different bidders will compete the positive gain away in favor of the target company (Berkovitch and Narayanan, 1993). Seth, Song and Pettit make a distinction between foreign and domestic acquisitions, but state that the synergy argument is the best explanation for their sample of foreign takeovers of United States companies by Japanese bidders. Nevertheless, they point out that there could be a difference in importance of the motives of domestic versus cross-border takeovers (Seth, Song and Pettit, 2000).

2.1.2 The monopoly theory

The monopoly theory is based on the motive of market power, which can be an argument for horizontal integration as well as for diversification. Diversification into different, not related markets can enable a company to cross-subsidize products, limit competition and to deter potential entrants (Trautwein, 1990). It is hard to find evidence supporting the monopoly theory because an acquisition that is initialized based on the argument of increase of market power can be sold on other grounds, like the synergy gains (Berkovitch and Narayanan, 1993).

Jensen and Ruback claim that there is no evidence that supports the existence of the market power argument in takeovers (Jensen and Ruback, 1983).

2.1.3 The raider theory

The raider theory is based on greenmailing the target by the initial bidder. According to Trautwein this is not a very logical motive, because the bidder initially has to buy stock and without a funded reason to increase wealth in the first place, no gains could have been achieved. This is in spite of the fact that a premium has to be paid when the greenmailed target wants to buy its stock back from the bidder. Without a third party that enters the process with a higher bid to offset the loss (the initial premium paid by the bidder), an ultimate gain cannot be expected (Trautwein, 1990). Besides this, it is argued by Bradley that competition prevents a raider from paying less than the market price (Bradley, 1980). Trautwein stresses the point that the evidence for this theory is at best very weak (Trautwein, 1990). Despite the findings of Trautwein, there is evidence that a stock repurchase by the target from the bidder yields significantly negative abnormal stock returns for the shareholder of the buying target firm and significantly positive returns for the selling bidder firm (Bradley and Wakeman, 1983, Dann and DeAngelo, 1983), but because of the initial premium paid for the target's stock, this positive gain for the initial bidder on itself is still no proof for the existence of the raider theory.

2.1.4 The valuation theory

Sir Francis Bacon (1561-1626) stated 'knowledge is power' and in the line of this statement it could be stated that 'information is wealth'. The valuation theory is based on the argument that the bidding managers have more or better information about the target's value (with or without the combination of the target with the bidder) than the market and are therefore able to bid a premium to the market price and still be able to achieve a positive net return. The fact that the market is lacking information compared to the bidder is not in violation with the efficient market hypothesis. This is possible because the bidder could have private and unique information that is not publicly available, which is a condition for the efficient market hypothesis, as is also argued by Ravenscraft and Scherer (Ravenscraft and Scherer, 1987). The only way the bidder will be able to achieve a gain on the acquisition, based on the valuation theory, is when the bidder is able to maintain a unique advantage after the information becomes public. Otherwise, a competitive bidder and the original bidder will compete the gain away in favor of the target. A fundamental difference of the valuation theory compared to all the other theories is that it explicitly recognizes the existence of uncertainty. The valuation theory assumes that other market participants do not have the information the bidder has and as a consequence they have to 'guess' what the target is worth. Even more interesting, it should be taken into account that other (possible) bidding parties have private information the initial bidder is not aware of, which results in uncertainty for the initial bidder (Berkovitch and Narayanan, 1993).

2.1.5 The empire-building theory

The empire-building theory belongs to the second key group of main motives for an acquisition, as was specified earlier in this section, and is a collection of several managerial theories (Trautwein, 1990). Jensen already describes this phenomenon in 1986 in the form of the agent-principal theorem (Jensen, 1986). The empire building theory stems from the agency-principal theorem, which states that mergers are planned and executed by managers who thereby try to maximize their own personal utility instead of shareholder value (Berkovitch and Narayanan, 1993, Trautwein, 1990). The empire building definition used in this thesis is in line with the definition used by Trautwein and is described as a manager that is primarily focused on his personal interests instead of his shareholder's and because of this, when the incentive for a manager is not properly aligned with the interest of the shareholder, they will part (Trautwein, 1990). This could lead to an attempt to increase the size, scope, growth, power, profits or status of an individual's or organization's power and influence, what could lead to expanding business units, staffing level and dollar value of assets under the managers control, instead of improving shareholder's value. Furthermore, it could be a diversification of the management's personal portfolio, use of free cash flow to increase the size of the firm (Jensen, 1986) and the acquisition of assets that make the bidder's company more dependent on its existing management team (Berkovitch and Narayanan, 1993).

Berkovitch and Narayanan state that if an acquisition has negative total gains the agency motive, among other things empire building, is the primary motive. It also works the other way around; when an acquisition is initialized because of empire-building reasons, negative total gains can be expected. It could even be the case that, if the target company is aware that the motive for the takeover is empire-building, the target will try to increase its gains at the cost of the bidder, what will further hurt the shareholder of the bidder company (Berkovitch and Narayanan, 1993, Jensen, 1986). It should be clear that this argument is never publicly used to announce and explain why a particular acquisition is initialized and therefore no evidence can be found to support the motive of empire-building (Trautwein, 1990). In support of this notion, Jensen and Ruback claim that in practice it is hard to find proof that supports the statement that managerial actions hurt shareholders, with the exception of actions that exclude bidders with a standstill agreement. Even if negative gains are observed, it is almost impossible to differentiate the possible causes from each other, like failing management, opportunist management actions or plain bad luck (Jensen and Ruback, 1983). The argumentation of Jensen and Ruback contradicts Berkovitch and Narayanan's statement that negative total gain acquisitions stem from the agency-principal motive.

2.1.6 The process theory and the disturbance theory

The process theory is based on the fact that an acquisition is not a strategic decision but that it follows from outcomes of processes. The theory is developed only rudimentarily and the evidence is ambiguous. Consequently, the process theory is not further discussed in depth. The

disturbance theory reasons that when there is an economic disturbance this will alternate (an) individual expectation(s) and therefore the value of companies, which should lead to a merger wave. Again, also for this theory the evidence is weak or only applicable to the sector level. Both theories are not further examined because there is little evidence to support them or does not make sense economically (Trautwein, 1990).

2.1.7 The hubris theory

The strong hubris hypothesis is based on the notion that the acquisition was not necessary, but was based on a wrong assessment of the situation. As a result, there are for example no synergies or any other (total) gains for that matter. Hence, it is not expected that the acquisition will yield any positive or negative gains, but the acquisition was solely undertaken because of misjudgment by the management of the bidder. The reason that besides no positive gains also no negative gains can be expected, is because the management is as likely to over- as underestimate the influencing factors like synergies and therefore there is only a transfer of wealth. If the hubris theory holds, it is not possible to observe positive returns (Berkovitch and Narayanan, 1993).

A moderate hubris hypothesis allows for a combination with the efficiency theory in which the manager starts with a rational reason, based on synergy gains, to initiate a takeover but overestimates his own abilities. As a result of this moderate hubris theory and irrational behavior, the manager could overpay for the target, in which part of the wealth of the bidder is transferred to the target, what could result in a loss of total wealth of the bidder's shareholders (Seth, Song and Pettit, 2000).

Based on the findings of Bradley, Desai and Kim (1998) the conclusion can be drawn that the hubris hypothesis is the dominant motivation, because their results indicate negative average returns for the bidder. Roll's empirical study shows, based on United States takeovers, that the evidence supports the strong hubris theory (Roll, 1986). However, Berkovitch and Narayanan find evidence that supports the moderate hubris hypothesis (Berkovitch and Narayanan, 1993). Firth also supports the moderate hubris hypothesis in his article in 1990, that is based on U.K. data (Firth, 1991).

2.1.8 Direct entry versus takeovers

First of all the decision has to be made whether to enter a new market before the best strategy can be chosen. A condition to go ahead with the entry of a new market is the need for a competitive advantage (Trautwein, 1990). When a company wants to enter a new market and/or country it can do so by establishing, for example, a new company or subsidiary in the new market and/or country. The other option to enter the new market and/or country is to buy an existing company in the new market and/or country: direct entry versus a takeover. The choice whether a new entrant will enter a new market through direct entry or a takeover

depends among other things on the costs of the direct entry, the efficiency of the new entrant and the efficiency of the possible targets and the costs of an acquisition. Other factors which have an influence are pricing, production and location decisions. When a company enters a new market and/or country it has to establish itself, make itself known, learn to know the market, build a client base, establish connections and many other things that will bring (high) costs: the entry costs. A company can avoid these costs of direct entry by the acquisition of an established and existing firm (McCardle and Viswanathan, 1994), but this will bring other costs: the acquisition costs. Through direct entry the competition in a sector will increase and this will have a depressing influence on the stock price of the existing market parties. If the mode of entry is beforehand not known, this could be positive for the potential bidder, because the target company could become less expensive. However, it could be the case that the entry costs are very high in a certain market and therefore the only option is an acquisition, because the acquirer will not be able to recover the costs of direct entry (McCardle and Viswanathan, 1994). Consequently, one should pay attention that the direct entry versus a takeover decision is interlinked with the level of competition.

2.1.9 The signaling hypothesis

The signaling hypothesis is not a theoretical motive or a strategy. It is hard to imagine that an acquisition is pursued for the sake of signaling, because there are alternative and more efficient ways of signaling information to the market, for example by a change in dividend strategy. Despite the fact that signaling is not a strategy or theoretical motive, one should be aware of possible signaling effects, because the signaling effect could be present besides the different theoretical motives and/or strategies. Evidence for the presence of the signaling hypothesis is among others provided by Chang, Travlos and McCardle and Viswanathan (Chang, 1998, McCardle and Viswanathan, 1994, Travlos, 1987),. The fact that one should be aware of the fact that the signaling hypothesis can have an influence is the reason that the signaling hypothesis is explicitly mentioned in this thesis.

Concluding, as Jensen and Ruback state clearly: ‘it would be surprising to find that all the gains (…)are due to a single phenomenon’ (Jensen and Ruback, 1983). So, maybe the best conclusion that can be drawn based on the literature is that no single motive on itself is sufficient to initiate the acquisition process, because in many cases the motives cannot be differentiated from each other as they exist simultaneously (Berkovitch and Narayanan, 1993).

However, it should be noted that despite the theoretical incentives, as has been shown in this section, on average the return for the acquirers is zero (Capron and Pistre, 2002, Fuller, Netter and Stegemoller, 2002, Healy, Palepu and Ruback, 1992). A possible reason for this could be the fact that the individual acquirers are suffering from overestimation of one’s powers: the hubris theory. As a consequence the bidder overpays or makes a wrong assessment from the start of the determinants (Healy, Palepu and Ruback, 1992, Seyhun, 1990). Another possibility is that

acquirers forget that a merger can only create value if the competition cannot duplicate the synergies and its resulting cash flows, what only occurs when the acquirer possesses an unique resource (Capron and Pistre, 2002). Further results regarding abnormal returns will be presented in the following section, section 2.2 abnormal returns.

2.2 Literature regarding Abnormal Returns

In this section the literature regarding the evidence of abnormal returns is reviewed. First, the definition of an abnormal return is given. Next results from previous researches are presented and subsequently the possible influencing determinants of the abnormal returns are outlined. After that, an explanation why the results differ and how the division of returns between target(s) and bidders takes place is given.

2.2.1 Abnormal Returns

An abnormal return, as it is defined in this thesis, is the return which is produced by a given stock or portfolio of stocks over a predetermined event period that is the difference between the actual and expected stock return. The expected return is calculated on the basis of historical data, the base period.

More details will be presented in section 3.2.2 regarding the way of calculation of abnormal returns, such as it is used in the methodology of the results of this thesis.

A differentiation between target returns, bidder returns and total returns has to be made, because of the underlying reason why the different groups are able to achieve abnormal returns and also why the magnitude of their abnormal returns differs. For example, it could be the case that there is only a wealth transfer from one party to the other in which one party's gain is the other's loss . It could also be the case that there is a total gain, but then it is the question how the gain is divided over the target and the bidder. A more thorough elaboration on this point will be given in section 2.2.2.

Jensen and Ruback give an overview of previous research regarding abnormal returns in their 1983 paper. Table 2.2: Results summary article Jensen and Ruback presents a summary of their results[1]. Additional results of other researchers are given in table 2.3 and table 2.4.

[1] With regard to table 2.1 and other results of previous research it should be taken into account that one should not compare the different results on a one to one basis against each other, because the different researches are from different periods in time, with a different methodology and with different assumptions. The information given is meant to give a impression of whether abnormal returns exists and in approximately what magnitude.

Table 2.2: Results summary article Jensen and Ruback

Author	Sample period	Event period		Bidding Firms	Target Firms
	Tender offers:	***Announcement effects***	***Event period***	***Successful (%)***	***Successful (%)***
Dodd and Ruback (1977)	1958-1978	Offer announcement month	30	2.83	20.58
,,	,,	The month of and month following offer announcement	61	3.12	21.15
Kummer and Hoffmeister (1978)	1956-1974	Offer announcement month	30	5.20	16.85
Bradley (1980)	1962-1977	Twenty days before through twenty days after the offer announcement	41	4.36	32.18
Jarrel and Bradley (1980)	1962-1977	Forty days before through twenty days after the offer announcement	61	6.66	34.06
Bradley, Desai and Kim (1983)	1963-1980	Ten days before through ten days after the offer announcement	21	n/a	n/a
Bradley, Desai and Kim (1982)	1962-1980	Ten days before through ten days after the offer announcement	21	2.35	n/a
Ruback (1983)	1962-1981	Five days before through the offer announcement	6	n/a	n/a
		Weighted average abnormal returns		3.81	29,09
	Mergers:	***Two-day announcement effects***			
Dodd (1980)	1970-1977	The day before and the day of the offer announcement	2	-1.09	13.41
Asquit (1983)	1962-1976	The day before and the day of the offer announcement	2	0.20	6.2
Eckbo (1983)	1963-1978	The day before through the day after the offer announcement	3	-0.07	6.24
		Weighted average abnormal returns		-0.05	7.72
	Mergers:	***One-month announcement effects***			
Dodd (1980)	1970-1977	Twenty days before through the first public announcement	21	0.80	21.78
Asquith (1983)	1962-1976	Nineteen days before through the first public announcement day	20	0.20	13.3
Eckbo (1983)	1963-1978	Twenty days before through ten days after the public announcement	31	1.58	14.08
Acquith, Bruner and Mullins (1983)	1963-1978	Twenty days before the announcement day through the announcement day	21	3.48	20.5
Malatesta (1983)	1969-1974	Public announcement month	n/a	0.90	16,8
		Weighted average abnormal returns		1.37	15.9
	Mergers:	***Total abnormal returns from offer announcement through outcome***			
Dodd (1980)	1970-1977	Ten days before offer announcement through ten days after outcome date	21	-7.22	33.96
Asquith (1983)	1962-1976	The days before offer announcement through outcome date	2	-0.10	15.5
Weir (1983)	1962-1979	Ten days before offer announcement through ten days after cancellation date	-	n/a	n/a
		Weighted average abnormal returns		-1.77	20.15

Source: Jensen and Ruback (1983)

Appendix 3 shows the original table of Jensen and Ruback on which table 2.2 is based. The general conclusion of Jensen and Ruback, based on the results of table 2.2, is that target firms achieve significant positive gains of 30% for tender offers and 7% for mergers around the announcement date. Positive gains are also found for the event period which starts several days (the exact number of days differs between the articles) before the announcement date and throughout the time until completion of the takeover in case of successful takeovers. From the bidder point of view it is a different story. Jensen and Ruback conclude that tender offers have a significantly positive return with a weighted average return of 3.8%. Nevertheless the evidence for mergers is different. The results indicate that there is an average return of zero for mergers. On the whole they conclude that bidders are not able to achieve abnormal returns, but also do not suffer losses from a takeover, but the total gains remain positive even if the returns are controlled for relative size differences. Furthermore, they conclude that benefits can only be achieved when the control right of the target is transferred to the bidding company and the takeover is successfully completed. It is pointed out that it is harder to measure bidder returns than target return, because bidders are sometimes involved in more than one acquisition while a target can be acquired only once. Moreover, if a takeover attempt is anticipated, the value of the takeover is already priced into share price and therefore it is possible that on the announcement date in this case no effect could be observed (Jensen and Ruback, 1983).

Striking are the results of Dodd in table 2.2, which deviate clearly from the general trend with a negative 1.09% and a negative 7.22% return with respectively t-statistics of -2.98 and -2.50, which indicate that the results are statistically significantly different from zero. According to Jensen and Ruback, these deviating results do not have a clear explanation other than sample specific reasons which is not a very satisfying explanation and what cannot be explained based on their sample selection criteria (Jensen and Ruback, 1983).

Studies that have been done before the studies presented in table 2.2 had a different methodology than the research done more recently. The studies of Mandelker, Ellert and Langetieg use the effective date of the merger as day zero of the event period (Ellert, 1976,Langetieg, 1978, Mandelker, 1974). This will lead to different conclusions than the more recent researches, because according to Jensen and Ruback, the expected price effect will take place before or on the first public announcement date (Jensen and Ruback, 1983). As a result, these researches will not yield much insight in the topic of abnormal returns and because of this will not be further reviewed.

In the 1989 article of Jarrell and Poulsen, the authors interestingly enough find positive abnormal returns for the target *as well* as the bidder companies, which appears to be contradicting the general conclusion of Jensen and Ruback (1983). Their sample spans the time period from 1963 until 1986 with a total of 450 tender offers. The abnormal bidder returns

that are found, which are illustrated in table 2.3: Abnormal Returns results Jarrell and Poulsen, are small but still significant. The target abnormal returns are at 29% large and significantly different from zero. The trend is that the longer the event period becomes, the higher the abnormal returns are. A note should be made in regard to the results of the article of Jarrell and Poulsen: the 1980s results yield negative, but insignificant results for bidder abnormal returns.

Table 2.3: Abnormal Returns results Jarrell and Poulsen

Event Period Description	Event Period	CAR[2]	T-statistic	Sample size
Bidder				
Two days before the announcement day until one day after the announcement day	5	0.70	2.67	461
Five days before the announcement day until five days after the announcement day	11	0.92	2.36	461
Ten days before the announcement day until twenty days after the announcement day	31	1.96	3.47	461
Ten days before the announcement day until thirty days after the announcement day	41	2.15	3.49	461
Twenty days before the announcement day until ten days after the announcement day	31	1.29	2.35	461
Target				
Twenty days before the announcement day until ten days after the announcement day	31	28.99	30.50	526

Source: Jarrell and Pouslen (1989)

Andrade, Mitchell and Stafford focus in their 2001 paper on takeovers in which both the target as well as the bidder are public United States based companies. The sample covers the period from 1973 until 1998 and contains a total of 3,688 companies. Their findings are, as can be read in Table 2.4: 'Abnormal Returns results of Andrade, Mitchell and Stafford' that the targets are able to achieve an average of 16% abnormal return on a three day event period, which is significantly different from zero at the 5% level. The abnormal return increases when the event period becomes longer. A 16% abnormal return in three days for the target is translated to a wealth gain of $37 million in three days per company. Very interesting, as Table 2.4 shows, is that the 16% abnormal return is very stable during the sample period. The fact that the abnormal returns stay stable while there were different influences through the sample period (in every decade there were large differences in which industrial companies were involved in a high degree of merger activity), indicates that over time these influences did not affect target returns (Andrade, Mitchell and Stafford, 2001). Based on these results the conclusion should be that target returns are similar for the different sorts of takeovers. If this conclusion is compared to the results of Jensen and Ruback, it is hard to sustain this conclusion, because the target returns are not stable in Jensen and Ruback's research. The difference between the article of Jensen and Ruback and that of Andrade, Mitchell and Stafford is that in the research of Jensen and Ruback results from different studies are compared to each other and not the

[2] CAR: Cumulative Abnormal Returns

results within the same research and the same methodology as done by Andrade, Mitchell and Stafford.

The results of the bidders are pointing in the other direction, namely a negative abnormal return. Despite the fact that the results of the three day event period and the longer time period differ in size, they both point in the same direction: negative. It should be noted that the results of the bidder are not significant. These results correspond with the general conclusion of Ruback and Jensen (1983) and Jarrell and Poulsen (1989), that bidder returns are on average negative or zero.

Table 2.4: Abnormal Returns results of Andrade, Mitchell and Stafford

Event Period Description	1973-1979	1980-1989	1990-1998	1973-1998
Combined				
3 days, one day before the announcement until one day after the announcement day	1.5%	2.6%	1.4%*[3]	1.8%*
From 20 days before the announcement until the close of the merger	0.1%	3.2%	1.6%	1.9%
Target				
3 days, one day before the announcement until one day after the announcement day	16.0%*	16.0%*	15.9%*	16.0%*
From 20 days before the announcement until the close of the merger	24.8%*	23.9%*	23.3%*	23.8%*
Acquirer				
3 days, one day before the announcement until one day after the announcement day	-0.3%	-0.4%	-1.0%	-0.7%
From 20 days before the announcement until the close of the merger	-4.5%	-3.1%	-3.9%	-3.3%
No. Obs.	598	1226	1864	3,688

Source: Andrade, Mitchel and Stafford (2001)

In summary, the results of Jensen and Ruback (1983), Jarrell and Poulsen (1989) and Andrade, Mitchell and Stafford (2001) do not yield conflicting results. They all conclude that in the situation of a takeover, the target will be able to achieve positive abnormal returns, which differ significantly from zero.

The general conclusion regarding the bidders is that the bidder, on average, will not be able to achieve positive abnormal returns, but zero or negative returns and that this notion is widely supported in the literature (Andrade, Mitchell and Stafford, 2001, Giliberto and Varaiya, 1989, Seth, Song and Pettit, 2000). In spite of this, it is not clear whether the bidder will yield zero abnormal returns or negative abnormal returns. The results of Jarrell and Poulsen on first hand

[3] * indicates statistically significant at the 5% level in table 2.4

seem to disagree with the results of the other authors. They find positive abnormal returns for most of the course of their sample period. Only the nineteen eighties seem to be in correspondence with the other authors of this section. On the other hand, the main difference between the article of Jarrell and Poulsen and the other articles is the fact that their sample solely contains tender offers and therefore only studies a part of the companies involved in a takeover. The results in Jensen and Ruback's summary article also come across positive returns for tender offers and therefore it is concluded that the results of Jarrell and Poulsen do not undermine the general conclusion that bidder abnormal returns are on average zero or negative and that the difference in results stem from methodological choices. It should however be kept in mind that the specific type of takeover can influence the general conclusion, as the group 'tender offers' appears to yield positive bidder abnormal returns for the period 1960 until 1980.

2.2.2 Determinants of abnormal returns

The underlying determinants are among other things the cause of the division of gains between the bidders and the targets. In section 2.1 'Why are acquisitions initialized?' motives why takeovers are initiated in the first place were given, however these motives do not succeed in completely explaining the results that are presented in section 2.2.1. The general trend which is described in section 2.2.1 is that there are no positive gains to be achieved by bidders. An exception in section 2.2.1 is the article of Jarrell and Poulsen which hints that certain groups, in their case tender offers, will be able to achieve positive abnormal bidder returns. In this section several determinants are described that will further enhance the understanding of which factors have an influence on the abnormal returns who will achieve the gains (the target or the bidder). The described determinants are frequently observed in the literature or are indentified as (possibly) important.

Several determinants that frequently return in the literature or catch the eye are: competition, method of payment, private versus public target, bargaining power, (relative) size, leverage, Tobin's q ratio, hostile takeovers, industry-relativeness, target and combined returns and regulations. Of course, more determinants and/or combinations could be found in the literature, but this section is limited to the above mentioned factors.

2.2.2.1 Competition

In a takeover contest only one seller (the target) can take part but several potential buyers/bidders can be present. For example synergy advantages could be present for several bidders in the different combinations with the target. A bidding contest could be the result. The different bidders will value the gains that can possibly be achieved for their combination with the target and will put an offer on the table. A competing bidder may observe the offer and decide to overbid the initial offer. This can go on until a bid is offered that the other bidding parties are not willing to overbid. The 'winning' bidder will have to pay more for the

takeover than would have been the case when no competition would have been present, in which case it could be possible that the initial offer would have closed the deal. A part of (or maybe all) the potential gains for the bidder are transferred to the target (Berkovitch and Narayanan, 1993, Giliberto and Varaiya, 1989, Seth, Song and Pettit, 2000). In certain specific bidding competitions, for example a 'sealed-bid auction', it could even be the case that the bidder suffers from the 'Winner's Curse', in which case the bidder overpays for the target. The hubris hypothesis, as mentioned in section 2.1, could be the driving force behind this (Giliberto and Varaiya, 1989). Seth, Song and Pettit show in their 2000 research that with a single bidder, the acquiring company was able to achieve 89.6 million gains, but in a situation with multiple bidders the acquiring company ended up with a negative 9.9 million wealth gain (Seth, Song and Pettit, 2000). In other words: the results of Seth, Song and Pettit not only support the notion that competition will decrease the wealth gains of the bidder, but also seems to support the 'Winners Curse'. Chang comments is his 1998 research that there is no evidence for a difference in competition between public or private companies (Chang, 1998).

2.2.2.2 Method of payment: cash versus stock

In regard to the method of payment a differentiation between stock and cash payments has to be made. A stock or cash payment in itself does not say anything about the acquisition, but it reveals information about the underlying drivers. The revelation of new information about underlying drivers in an situation in which information asymmetry exists is called the 'signaling effect' (Jensen and Ruback, 1983, Travlos, 1987), which effect was aforementioned in section 2.1.10.

According to Chang, a further division has to be made concerning a stock or cash offer in a case in which the target is respectively private or public. In the case of a stock bid on a private firm this should be seen as private placements of equity (Chang, 1998). When the target company is private, a stock payment will yield positive abnormal returns, see the results of Chang (1998) in table 2.5: 'Private/public companies and method of payment' in regard to private and public companies. If there is a cash offer to a private target, the abnormal returns are zero. The reason for the positive abnormal return for a stock acquisition of a private target, is the following one. If the target is willing to hold the bidder's stock, it is signaling positive information about the bidder (Chang, 1998) and in addition there could be an effect of increased monitoring, because the former private target becomes a (large) shareholder of the bidder, which potentially increases the monitoring of the bidder (Jensen and Ruback, 1983). Overall, the results indicate that the private target companies are well informed about the bidder, because in certain cases the targets are willing to accept stock (Chang, 1998). In contrast: a stock offer for the public company has a negative effect. This could stem from the fact that a stock offering to a public target is very similar to the placement of new public equity for publicly traded targets (Chang, 1998). A bidder would not want to put new equity on the market or put a stock offer forward when it is undervalued, it would prefer a situation in which

it is overvalued. A stock offering could signal overvaluation on the bidder's side (Jensen and Ruback, 1983).

The positive signaling effect of private target stock offering is absent in a cash acquisition, because in the case of cash payment it could even mean that the target wants cash because it knows the bidder is overpaying. The fact that the results, as shown in table 2.5, are zero instead of negative does not support this notion. In the case the target knows that the bidder is overpaying and the target would accept a stock payment, it means that the stock of the bidder eventually will decline and de facto the magnitude of the stock payment is smaller compared to a cash payment.

Table 2.5: Private/public companies and method of payment[4]

Method of payment	Abnormal return Bidder	Abnormal return Bidder	Significant
Private cash	+0.09%	Zero	No
Private stock	+2.64%	Positive	Yes**[5]
Public cash	-0.02%	Zero	No
Public stock	-2.46%	Negative	Yes**

Source: Chang (1998)

Overall the conclusion of Chang (1998) is that cash bidders have a zero abnormal return and the abnormal returns of stock bidders depend on the fact whether the target is a private or public company. Despite the fact that the results of Chang are in conflict with the findings of other articles, the article of Chang illustrates the possible driving forces behind the method of payment, its interaction with other forces and what it could signal in a clear way. The fact that the research of Chang has different results than other researches could stem from sample specific results or methodology differences.

The consensus in the literature, is that a cash offer will signal, in accordance with the 'signaling hypothesis', that the bidder company is undervalued and a stock offer will signal bidder overvaluation (Jensen and Ruback, 1983, Travlos, 1987, Travlos and Waegelein, 1992).

2.2.2.3 Private versus public target

In the previous section the distinction private versus public target company was already briefly discussed in the context of method of payment. The issue whether the target is private or public contains other interesting issues and information. Important differences between

[4] Note: A shareholder will only be tempted to sell its shares in the case of a public target company when abnormal returns for the target are present. Therefore one should always expect abnormal returns to be present, otherwise a shareholder will not sell its stock.

5 ** indicates significance at 1% level in table 2.5.

private and public targets in regard to acquisitions is the (obligatory) disclosure of information, the liquidity of the shares and the general high level of concentration of ownership with private companies. The high degree of ownership of private companies leads to the fact that the owners have a high level of inside information about the value of the equity (Moeller, Schlingemann and Stulz, 2004). In the sample of Fuller, Netter and Stegemoller it is shown that companies that make five or more acquisitions and that acquire private targets have a higher abnormal return than companies that acquire public companies (Fuller, Netter and Stegemoller, 2002). As shown in the previous section Chang also provides evidence that supports the notion that acquiring private targets yields positive returns compared to public targets. Moeller, Schlingemann and Stulz support this notion in their research. In addition to this is the fact that large companies tend to be twice as likely to acquire a public company compared to small company bidders (Moeller, Schlingemann and Stulz, 2004). This leads to a possible connection of the size effect and the private versus public target issue underhand.

2.2.2.4 Bargaining power

Bargaining power is an important factor in the division of gains, however bargaining power stems from different sources such as corporate anti-takeover measures and competition. Firstly competition. The possible effects of a bidding contest and the division of the gains are already described previously and therefore will not be addressed again in this section. However, this is not the only way that competition can have an influence on de division of gains. Solely the threat of a competing bidder will increase the target bargaining power relative to the initial bidder (Varaiya, 1987), which could lead to a transfer of gains from the bidder to the target. Secondly, there is the notion that anti-takeover charters could change the balance of power between the target and bidder. The idea behind anti-takeover measures is that the incentive for a single shareholder to sell its shares is reduced so he holds on to them (Varaiya, 1987). As a consequence, the target is less likely to become a takeover target. The fact that a company becomes a less likely target could initially lead to a decrease in the target-shareholders wealth, because it is harder for a bidder to accomplish a takeover of the target. As a result it is, for example, less likely that a bidder will be able to implement synergy gains (Jensen and Ruback, 1983). Still the data does not support this notion. Insignificant negative or small positive returns are found (DeAngelo and Rice, 1983, Jensen and Ruback, 1983).

Common anti-takeover amendments are: Super-majority voting, the possibility to temporarily delay the transfer of control of the current management to the bidder after the moment that the bidder has build up an effective control through its ownership of enough shares and/or a combination of the two measures above (Varaiya, 1987). The antitakeover measures can have the results that tender offers are less likely to succeed and promote negotiated deals between the target and bidder. It could be reasoned that through direct negotiation the bargaining power is increased. The increased bargaining power of the target could result in that the target will be able to acquire a larger share of the total wealth gain of the takeover. As described

above there is only weak evidence to support this notion. DeAngelo and Rice are instead pointing in the direction of the management entrenchment hypothesis for an explanation of the results (DeAngelo and Rice, 1983) instead of increased bargaining power which has to result in a wealth increase for the target shareholders. Regarding to the bidder premium, the explanation that the bidder premium increases in the presence of antitakeover measures (Varaiya, 1987) could be that this effect stems from increased costs, compared to a situation without antitakeover measures, instead of an increased wealth transfer from the bidder to the target.

2.2.2.5 (Relative) size

Moeller, Schlingemann and Stulz establish in their research that there is an equally weighted abnormal return of 1.1% but that the bidders lose on average $25.2 million on the announcement of the acquisition, which indicates a size effect. In addition, they find on average a two percent higher return for small bidders (Moeller, Schlingemann and Stulz, 2004). This indicates that a size effect between the different bidders exists. The argumentation is as follows: it is hypothesized that the incentives of managers of small companies are better aligned than this is the case for larger companies. The reason for this is that managers of larger firms more easily endeavor in empire building. Besides this, they have a higher change of being affected by hubris, as described in section 2.1.7. This is because these managers have socially a higher status and/or the larger company they are directing enables them to more easily engage in acquisition because of the higher resources 'their' company contains compared to a smaller company. Moeller, Schlingemann and Stulz provide evidence that managers of large companies indeed pay more (larger premium) for acquisitions compared to smaller companies. In addition, a large company (in equity) could be at the end of its lifecycle, which implies that low or little growth options are remaining and therefore is more likely to be overvalued. This could lead to a high level of free cash flow and, because of this, to agency problems. The overvaluation problem should disappear by using book value for the firm's assets, but the size effect remains, which indicates that more factors have an influence (Moeller, Schlingemann and Stulz, 2004).

Besides the issue of the influence of size of bidders is the issue of relative size influence between the bidder and the target. Asquith, Bruner and Mullins show evidence that the abnormal returns are influenced by the relative size of the target to the bidder. The abnormal returns are smaller when the bidder company becomes bigger relative to the target company measured in equity value (Asquith, Bruner and Mullins, 1983). An explanation is the 'disguised wealth effects hypothesis' which implies that, assuming that acquisitions are value increasing ventures for the bidders, when the target becomes relatively larger to the bidder, the effect of the acquisition is more clearly observed in the bidder's (abnormal) returns (Jarrell and Poulsen, 1989). The conclusion that relative size has an unambiguous positive influence is nevertheless to short sighted. Travlos concludes that there exists a negative influence of relative size on the

bidder abnormal returns (Travlos, 1987). Moeller, Schlingemann and Stulz therefore note that the relative size factor is often significant but that the influence of this factor varies (Moeller, Schlingemann and Stulz, 2004).

2.2.2.6 Leverage

When an company endeavors on the course of acquisitions one of the first conditions is the ability to pay for the acquisition by the target for which leverage could be a proxy. It is expected in this case that high leverage ratio's are of negative influence (Higgins and Beckman, 2006). Another interpretation of leverage is that high leverage stands for a high degree of monitoring by the debtor and the limitation of the possibility to invest free cash flow in negative net present value (NPV) projects, in which a high leverage ratio implies an positive influence. The evidence is mixed as Maloney, McCormick and Mitchell suggest that companies with a high degree of leverage make better acquisitions (Maloney, McCormick and Mitchell, 1993). The research of Higgins and Beckman yields a negative influence of leverage on the bidders abnormal returns, yet the results are only significant for a part of the sample and that is for the years 1999-2000 (Higgins and Beckman, 2006).

2.2.2.7 Tobin's Q ratio

Tobin's q ratio can be seen as a proxy for overinvestment versus value maximizing of the investment or over- versus undervaluation. If the Tobin's q ratio is less than one this indicates overinvestment or undervaluation and when Tobin's q ratio is over 1 this indicates value maximizing of the investment or overvaluation (Dong, Hirshleifer, Richardson and Teoh, 2006, Doukas, 1994). The evidence suggests that a higher Tobin's q ratio yields higher bidder abnormal returns (Doukas, 1994, Lang, Stulz and Walkling, 1991, Moeller, Schlingemann and Stulz, 2004) and that a low Tobin's ratio has a negative influence on bidder abnormal returns (Doukas, 1994, Lang, Stulz and Walkling, 1991). From this follows that maximizing of investment or overvaluation are seen as positive influence on a bidder company involved in an acquisition.

2.2.2.8 Hostile takeover

An acquisition can be denoted as 'hostile when the bid is rejected by the target company or when the acquirer describes it as unsolicited and unfriendly' (Andrade, Mitchell and Stafford, 2001), however there are many different definitions of a hostile takeover (Schwert, 2000). A company becomes a possible target for a hostile takeover when it is not utilizing its resources at its optimum and for example accumulates a lot of surplus cash. Hostile acquisitions can in these cases act as a way to enact market disciple. Although acquisitions are a way of enacting market discipline, they are not observed until the 1980s. The 1980s are labeled as the era of hostile takeovers. Despite this, only 14% of the takeovers during this time frame where actually hostile takeovers. In the 1990s the share of hostile takeovers decreased to 4% of the takeovers. (Andrade, Mitchell and Stafford, 2001). On the basis of this fact it has to be

concluded that hostile takeovers, although possibly important for market discipline, are a minority. Schwert claims that on average hostile takeovers are a rational choice. Hostile transactions 'involve publicity as a part of the bargaining process', but despite this, in the end on average a larger premium is paid for hostile takeovers. If one uses the SDC[6] definition[7] for a hostile takeover, hostile takeovers tend to yield lower abnormal returns then friendly takeovers. It should be noted that it is claimed that most hostile takeovers are in respect of economic terms not distinguishable of friendly takeovers (Schwert, 2000).

2.2.2.9 Industry-relativeness

An acquisition can be aiming for horizontal or vertical integration, in other words: integration versus diversification. Diversification can be pursued for several reasons, such as reducing the dependency upon a proportion of the market for absorbing its output or for securing an important input (Pfeffer, 1972). In other words in order to reduce risk. Diversification can however also be a consequence of theoretical motives, like the monopoly theory or empire-building theory. Through diversification it could be the case that a company increases its market position compared to a competitor by threatening other business units of the competitor in order to weaken its position or make shareholders more dependable on its current managers, as was described previously in the monopoly theory and empire-building sections. Diversification on itself as a strategy does not appear to be a very good one, because it is argued that the reduction of the risk of the conglomerate could have been more efficiently achieved by the investor. It is claimed that shareholders are better in diversification of risk in their portfolio than the company is able to do with its activities (Seth, Song and Pettit, 2000). Despite the aforementioned, some evidence for this argumentation points in the other direction. Moeller, Schlingemann and Stulz present evidence that diversification has a positive influence for small and big companies, but the results are only significantly for small companies (Moeller, Schlingemann and Stulz, 2004). In contrast to Moeller, Schlingemann and Stulz are the results of Singh and Montgomery. They show that horizontal takeovers create more value than unrelated acquisitions, of which the results are significantly different from each other (Singh and Montgomery, 1987), which could be based on the monopoly theory.

Industry relativeness is generally measured by the two digit SIC code[8], which means that when the target has the same two digit SIC code the target and acquirer are in same industry. If this is not the case, they are in a different industry (Andrade, Mitchell and Stafford, 2001)

2.2.2.10 Target and combined returns

When abnormal returns are discussed – as previously mentioned - the distinction between target, bidder and combined returns has to be made. The general consensus is that target

[6] SDC: Security Data Company
[7] SDC definition of Hostility: an unsolicited offer that is resisted by target management
[8] SIC: Standard Industrial Classification

companies have positive two-digit abnormal returns around the event day as is also confirmed by the results from the articles that are presented in section 2.2.1. The bidders consensus is that the bidders on average have a zero or negative abnormal return. Combined returns are somewhat more vague. Andrade, Mitchell and Stafford report abnormal returns of a three day event period between 1.4% and 2.6 %, as is shown in table 2.4. In addition Moeller, Schlingemann and Stulz report a combined abnormal return of 1.1%, but an absolute dollar value loss of 25.2 million due to size differences between the target and bidder. In general, the bidders are much larger than the targets (Jensen and Ruback, 1983). The fact that there is a general large difference in size could alter the conclusion whether acquisitions are a profitable course as shown in the results of Moeller, Schlingemann and Stulz. A small negative abnormal bidder return could outweigh, in absolute value, a larger percentage positive abnormal target return and make the sum of the gains in absolute value negative. Despite this, the evidence for an absolute combined negative abnormal return is mixed. Malesta and Bradley, Desai and Kim show evidence that the combined market value of assets of the target and bidding firm combined are positive, which contrasts the evidence of Moeller, Schlingemann and Stulz (Bradley, Desai and Kim, 1988, Malatesta, 1983). Overall, however the conclusion is, as stated in chapter 2.2.1 that zero or negative bidder returns are achieved in the western world.

2.2.2.11 Regulations

Schipper and Thompson argue that a change in regulations could reduce the profitability of mergers which explains negative abnormal returns (Schipper and Thompson, 1983). The implementing of restrictive regulations is different for the target compared to the bidder. Before the Williams Amendment the average abnormal return for bidders for a sixty day event period (-40,+20) around the announcement day of announcing a takeover is 9% and 6% after the Williams Amendment was implemented. Both average abnormal returns are significant, it should be noted however that the sample is small (28 companies from the prior and 51 companies from the post regulation change period) (Jensen and Ruback, 1983). Jarrell and Bradley and Smiley both find that on average there is a significant positive effect on the abnormal returns of the target and a significant negative effect on the abnormal returns of the bidder. (Jarrell and Bradley, 1980, Smiley, 1975). Asquith, Bruner and Mullins find similar results with diminished abnormal bidder returns and Malatesta presents significant negative abnormal post-outcome returns of -13.7% (Asquith, Bruner and Mullins, 1983, Malatesta, 1983). Schipper and Thompson have done research on the effect of four other regulatory changes and also found in these other case of regulatory change that the abnormal for the bidder was reduced (Schipper and Thompson, 1983).

The evidence is not conclusive, because the regulation could have an deviating effect for a particular subgroup of acquisitions. Jensen and Ruback illustrate the problem with an example. They state that if the regulations have no effect, except the elimination of low-value offers, the sole effect could be that the sample is truncated in the distribution of acquisitions that actually

take place. The shareholder's value of companies that would have been a target, but are no longer interesting for possible bidders due the regulation changes will diminish. However, the measured average abnormal returns for the targets that still become a target in a successful acquisition increases (Jensen and Ruback, 1983). It could be argued that deregulation should have the inversed effect as Andrade, Mitchell and Stafford argue, because for example deregulation was the main reason for merger activity in the United States in the 1990s (Andrade, Mitchell and Stafford, 2001).

2.3 The Japanese market, culture and regulations

Japan is a country which is very different from the rest of the world and stands out among the developed countries. It has a very distinct culture and deviating business organization with different regulations compared to for example the United States. This section will shed some light on this special country Japan. First, a description of the country itself and its economy is presented. Secondly, the traditional corporate structure is described. This section closes with a description of important regulatory changes in Japan in recent history.

2.3.1 Japan: a description

Japan is a country which spans a total land area of 374.744 square kilometers (comparable with the state of California of the United States), but with almost no natural resources. Japan has a population of 127.288.416 persons, which is a graying population in which 21,6% is 65 years or older and above all the country has a negative population growth rate (-0.139%). The government is a constitutional monarchy with a parliamentary government, since September 2008 the Prime Minister is Taro Aso (Central Intelligence Agency, 2008).

Figure 2.1: Japan

Source: Central Intelligence Agency (2008)

Japan has had a tempestuous history with a long period of isolation which runs from the 16th century until the 1850s, after which a period of rapid development and industrial growth started. After the Second World War left Japan devastated, Japan had to reinvent and rebuild itself. A period of rapid economical growth, which ended in the 1990s, started. Table 2.6: 'GDP development (the percentage growth)' shows the growth rate per decade, while figure 2.2: GDP development (on an annual basis, see also Appendix 1 for the annual data) shows the data of table 2.6 graphically. As can been seen in the data and the table, before the nineties

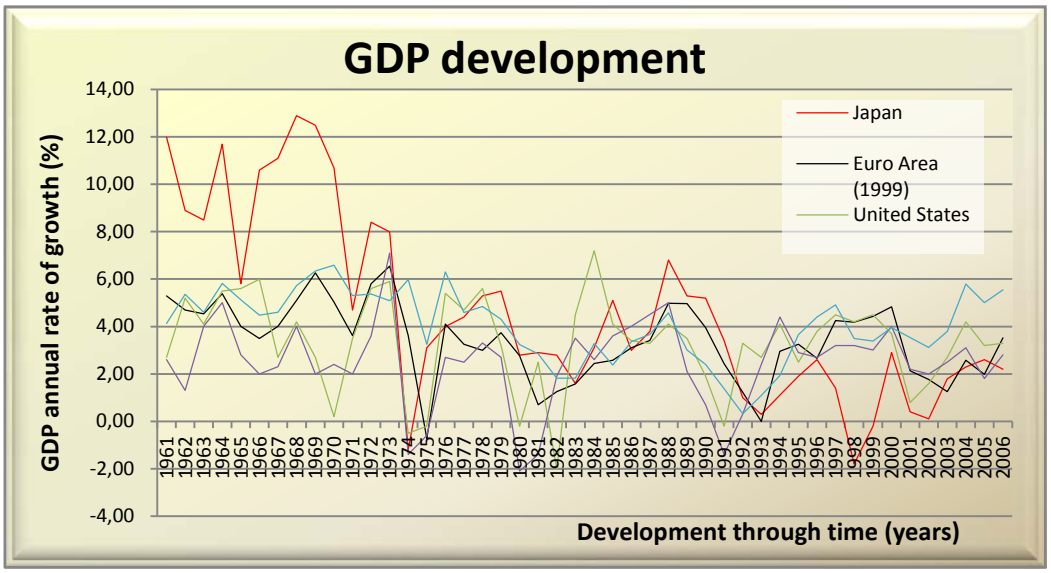
Japan outperformed the annual GDP growth of the Euro Area, the United States, United Kingdom and world in most of the years, respectively with 90%, 76.67%, 90% and 70%. For the whole sample period Japan outperforms annual GDP growth of these groups with respectively 67.39%, 52.17%, 65.22% and 50%. The worsened Japanese economy of the nineties is clearly illustrated by the annual GDP growth rates, because one can observe an underperformance of annual GDP growth in most of the years in comparison with the Euro Area, United States, United Kingdom and the World. However, GDP per capita growth remained strong in Japan, even in the nineties and later, see Appendix 2: GDP per capita. The GDP per capita growth went up with 505.33% from 1975 until 2006, which is in line with - but a little higher than - the United Kingdom or the United states.

Table 2.6: GDP development (the percentage growth)

Period	Japan	Euro Area[9]	U.K.	U.S.A.	World
1961 - 1970	10.47	4.78	2.84	3.89	5.27
1971 - 1980	4.50	3.57	1.98	3.30	4.82
1981 - 1990	3.96	2.90	2.65	3.25	2.91
1991 - 2000	1.26	3.02	2.47	3.31	2.85
2000 - 2006	1.57	2.21	2.40	2.63	4.46

Source: UNdata - A world of information (2008a)

Figure 2.2: GDP development (on an annual basis)



Source: Appendix 1

Based on the absolute size of the GDP, Japan is the second largest economy of the world, after the United States, but still before China. Japan is expected to be surpassed in the near future, and is already surpassed if you calculate the GDP on the basis of purchase power parity, but at

[9] Euro Area before 1999: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Portugal, Spain and The Netherlands (European Central Bank, 2008)

the moment Japan still maintains its position as the second largest economy in the world with an absolute value of the GDP at $4.384 trillion in 2007 (compared to a GDP level of $3.251 trillion of China and $13.84 trillion of the United States) (Central Intelligence Agency, 2008).

Despite the fact that Japan is a big player in the world economy, the country's striking difference is how the economy operates. Traditionally, Japan has not known many takeovers and when takeovers have taken place they are generally initialized by the sellers and not by the bidders. In the Japanese 'system', a third party is used to approach the bidder which leads to a loss in bargaining power compared to the general situation in which the bidder takes the initiative. Moreover, when this takes place in a situation in which the target, or in this case more appropriate the seller, has a relatively bad financial situation compared to the bidder, (more) abnormal returns for the bidder can be expected than can generally be expected in a comparable acquisition in another country in the western world, for example the United States. Historically, when takeovers took place in Japan, it were in fact takeovers within the same group of companies that already worked together: the so called 'Keiretsu' (Pettway and Yamada, 1986).

2.3.2 Corporate structure and the Keiretsu

The purpose of this section is to give insight in the complicated and different corporate structure that typifies Japan, which includes the so called 'Keiretsu'. The Japanese economy is traditionally organized around a system that can be defined as 'corporate collectivism' (Pettway and Yamada, 1986). Shimizu in a research reports that out of a sample of 894 companies 90% of the shares were owned by other companies within the same group of affiliated companies (Shimizu, 1980).

Lifetime employment is the norm in Japan, in particular within the companies of a Keiretsu as it is a seniority-based wage system. Furthermore, low labor mobility can be observed (Pettway and Yamada, 1986). Remarkably Japanese managers and employees view the company they work for as theirs, it belongs to them in their opinion. This is in severe contrast to the western world in which the companies are seen as to be owned by shareholders. As a result of their attitude, managers do not take shareholder value maximization as their main objective. Shimizu found that of the 894 Japanese managers he inquired, none said that value maximization was their main goal. Even as the second main goal value maximization was identified by only 0.2% of the managers. The main goal of Japanese companies, according to Shimizu, is protecting future access to 'loanable funds' (Shimizu, 1980).

An important Japanese corporate structure and a big part of the Japanese economy falls under the so called Keiretsu structure. The Keiretsu was already briefly mentioned in this thesis before, but what is a 'Keiretsu'? A Keiretsu is the name for a particular way of organizing affiliated Japanese companies in a group structure. The only structure that really comes close,

although there are differences, are the Korean 'Chaebols' (Nestor and Thomspon, 2000). The Keiretsu as they are known today were formed after the second World War to strengthen the Japanese economy. Some Keiretsu were newly formed, but four of the six big Keiretsu were based on the old, from origin family owned 'Zaibatsu', that had existed since the beginning of the century (CAPS: Center for Strategic Supply Research, 2005, Pettway and Yamada, 1986). Different types of Keiretsu can be identified (CAPS: Center for Strategic Supply Research, 2005), but basically a Keiretsu is a group of companies grouped around a big bank which provides finance when needed. A quote from Kang illustrates how much banks are involved in ownership of shares: 'In 1987, equity ownership by Japanese banks and insurance companies accounted for about 42,2% of the share listed on the Tokyo Stock Exchange' (Kang, 1993). The affiliated companies within a Keiretsu have a cross-holding of shares in order to prevent foreign (hostile) takeovers of companies within the Keiretsu. A situation the United States historically has problems with and complained about to their Japanese counterparts. Especially since in the past it was difficult, to practically impossible, to acquire a Japanese company for a foreign party, while in the same time it was possible for Japanese companies to acquire United States companies (CAPS: Center for Strategic Supply Research, 2005). Besides the financial connections, a Keiretsu has a group vision and strategy. Regularly the company presidents meet to agree on the company's business plans and future. For example in the case of Mitsubishi, they have the so called 'Friday Club' which means that the chief executives of the 29 companies of the Keiretsu meet every second Friday of the month to discuss the Keiretsu strategy (Rotman School of Management, 2008).

In the structure of a Keiretsu four types of ownership can be identified. First there is a group which is called the 'oya-ko', in which the parent company has a stake that exceeds 50% ownership of the daughter company. In the second place there is the 'kanren gaisha' in which there is a ownership of 20% to a maximum of 50% between two affiliated companies. Thirdly there is a situation in which there exists ownership between non affiliated companies and in the fourth situation there are the subcontractors and/or customers to which no ownership relation exists (Pettway and Yamada, 1986).

An acclaimed advantage of a Keiretsu is the fact that a Keiretsu and group companies are supposed to be focused on the long term (CAPS: Center for Strategic Supply Research, 2005). Projects, that for example western companies would not be able to get funding for because of initial big losses, can yield positive returns on the long term which are achievable for a Keiretsu. The financing will be done by the Keiretsu main bank (CAPS: Center for Strategic Supply Research, 2005). A possible drawback of a Keiretsu structure is that the results could be that they react relatively slow to events from outside the Keiretsu because of a lack of signals and incentives.

2.3.3 (De)regulations in Japan

In the past, Japan has known very strict takeover laws (Higgins and Beckman, 2006, Sibbitt, 1998). According to Higgins and Beckman, the ultimate barrier to M&A activity in Japan was its legal system for tender offers and restrictions imposed by the Foreign Exchange and Foreign Trade Control Law. Tender offers were permitted from 1972 on, however under strict regulations. The reason that was put forward to implement regulations was the notion in Japan that Japanese companies would not be able to safeguard themselves against takeovers. The two main reasons why the regulations were strict are, in the first place, that the actual effect of the legislation was not user friendly, because the bidder had to file notification with the Minister of Finance under a prior notification system. The practical result was that the bidder lost a great deal of its possibilities to time a bidding and the risk of premature information leaks increased, compared to the western systems. Secondly, the bidder had to publish an announcement in the daily newspapers immediately after the notification became valid. This notification of the market will reveal the bidder's strategy without the guarantee that there will be enough interest in the offering while at the mean time the information is available to the competition (Higgins and Beckman, 2006).

Under the pressure of the declining economical situation in Japan and increased competition in the international market, changes were and had to be made in the regulations in the 1990s. They had to be made in order for Japanese companies to get their competitive edge back they had enjoyed in the decade(s) before. An important goal of the changes is to make Japanese companies see shareholders differently then they traditionally did. Shareholders have to be seen as investors that want a proper return on their investment instead of passive and docile compliance with the companies actions (Higgins and Beckman, 2006).

First of all, the prior notification was abolished in the end of 1990, however solely for Japanese bidders (Higgins and Beckman, 2006). More substantial regulation changes came with the 'Big Bang'. According to Sibbitt, the 'Big Bang' in Japan started in 1996. Various financial deregulation measures were taken, see also appendix 4. The goal of the 'Big Bang' was to make the Japanese market 'free, fair, and global by 2001' (Sibbitt, 1998). The 'Big Bang' of Japan should not be seen as a single big event in time in which all the changes took place at the same time. In contrast to the 'Big Bang' of Japan there is for example the 'Big Bang' that took place in the United Kingdom at the 27th of October 1986 at which several changes were made at the same time. The Japanese 'Big Bang' should be seen as a prolonged effort over a long period in time with successive changes (Sibbitt, 1998). Furthermore, new legislation was made, of which the most important will be named hereafter. First of all, from October 1999 on it is allowed to acquire the entire share of other companies with stock as a means of payment without the need for any cash. Moreover it is allowed to go ahead with an acquisition without the need for a 100% approval of the shareholders. Secondly, since October 1999 it is allowed to erect a holding company in order to facilitate business combinations. Thirdly, from April

2001 companies are granted a tax advantage for business combinations and it became possible to transfer a part or the whole business of a company more quickly in order to prevent damage, or prevent further damage, to the business underhand under the Civil Rehabilitation Law (Higgins and Beckman, 2006).

Furthermore, accounting regulations were changed and came into effect in the period of 2000 to 2001. The goal of the accounting regulation change was to make the companies more transparent and also encourage mergers and acquisitions for unprofitable companies, subsidiaries or business units. The accounting restructuring was needed because in the past there was inadequate financial disclosure and maybe even more significantly potential bidders did not always trust the information that was disclosed. Under the principles of Japan's Commercial Code (JCC) only a financial report of the parent company was required. As a result of this, loss generating parts of a company were transferred to a subsidiary and subsequently the losses were not disclosed (Yoost, Tagai and Zencak, 2001). Besides the 'hiding' of bad performing parts of the company, debt level positions were masked (Sibbitt, 1998). As a result of this lack of information and trust, public firms were rarely a target of a takeover (Yoost, Tagai and Zencak, 2001). From 1999 on it is required to publish financial reports from a consolidated point of view (Higgins and Beckman, 2006, Yoost, Tagai and Zencak, 2001). In addition, the accounting has to be done from this time on based on fair value accounting, which means that Japanese companies have to record their securities owned with the intention of trading at current market value (Yoost, Tagai and Zencak, 2001) including their cross holdings (Higgins and Beckman, 2006). Changes were also made regarding the application of goodwill and taxation. All the changes were made with the intention to facilitate mergers and acquisitions (Yoost, Tagai and Zencak, 2001) and to encourage companies to part from bad performing subsidiaries and affiliates (Higgins and Beckman, 2006).

After the 'big bang' of the nineties the regulation changes did not stop. Some important regulation changes were made, starting with the implementation on the 28th of March 2007, the revised Merger Guidelines came into act. The revised Merger Guidelines were introduced to ease regulation on takeovers and to stay in line with changing competition laws around the world. The revised Merger Guidelines replaced the Merger Guidelines formerly applicable that focused on domestic business activity and protected domestic competition. The revised Merger Guidelines have, instead of domestic focus, a more world focus. Subsequently on the 1th of May 2007 new rules under the Company Law came into act that permit triangular mergers in which a Japanese company is involved. In the past due to legal issues this was practically unfeasible. On the 30th of Septermber 2007 the Financial instruments and Exchange Law (the FIEL) came into act. This law requires of private companies that acquire a public company 'by way of a statutory merger, stock swap and certain other methods specified in rules, to file a securities registration statement with the relevant authority' (Masujima, 2008). In addition to these three new regulations or regulation changes some tax laws were drafted in

2007, which enabled companies which are involved in triangular mergers to defer taxes on the resulting capital gains and losses (Masujima, 2008).

2.4 Literature regarding abnormal returns Japanese acquisitions

Until the end of the nineties acquisitions in Japan were rare compared to the world, especially if you compare them to for example the United States. However, from the end of the nineties, after legislation changes, a merger wave took off in Japan (Yoost, Tagai and Zencak, 2001). Despite the rarity of acquisitions in Japan itself, Japanese companies did take part in acquisitions overseas. In spite of the fact that few acquisitions took place in Japan, research has been done regarding the results of the acquisitions that took place. However, the amount of scientifical work is limited. This section continues in the following order: first an overview of the literature will be given in order of publishing date. Thereafter, a summary of the results and conclusions will be given. The results of the research reviewed in this section are compiled in table 2.7: Summary results Japanese Bidders returns, at the end of this section. Thirdly conclusions from the post-legislation change period that differ from the pre-legislation change period are examined.

In their 1986 research Pettway and Yamada have examined 97 Japanese mergers in order to review the impact of mergers in Japan on shareholders' wealth. In this research some relative small subgroups of respectively 50 companies, 31 companies and 16 companies are indentified, which can have influenced the reliability of the test results. Pettway and Yamada comment themselves that despite the fact the sample is not large, the research done on United States acquisitions in the same period has similar sample sizes. The period reviewed is the time period from 1977 until 1984, well before the regulation changes in the nineties. The conclusion is drawn that positive abnormal returns for the target company are present and significant (up to the 5% significance level on the announcement day) around the announcement day, but the abnormal returns are lower than in their United States counterparts. The average abnormal return of the targets on the announcement day and the day before are respectively +4,5% and +4,3% and are significant different from zero. The bidders abnormal returns and CAR show a positive trend around the announcement date but are not significant. The total CAR for the tested 100 day time period (30 days before and 70 days after the announcement day) is 3.977% and claimed to be 'significant' but only at the high level of 25%, so it should in fact be classified as insignificant at normal standards. The three day announcement period (from one day before the announcement day until the one day after the announcement day) has a CAR of 0.823%, of which no information is available regarding the significance level. Pettway and Yamada further investigate the influences of relative size between the target and the bidder. They conclude that bidder companies lose wealth in 'large-ratio' mergers and gain significantly in 'small-ratio' mergers, which is the reversed conclusion of Asquith, Bruner and Mullins' findings in their United States sample (Asquith, Bruner and Mullins, 1983, Pettway and Yamada, 1986).

Kang focuses with his 1993 research on the Japanese bidder returns and United States target returns of Japanese foreign merger and acquisitions activities. The sample taken runs from 1975 until 1988 and contains 119 Japanese bidders and 102 United States targets, with the same amount of companies as a control group, but with the difference that the control group contains only United States target and bidders. The CAR's for the Japanese bidders are significant at the 5% level and have a return of +0.59% over one day before the announcement day and the announcement day itself. The three day announcement period (from one day before the announcement day until one day after the announcement day) yields a +0.51% return which is significant at the 10% significance level. The Japanese results deviate clearly from the United States results who achieve a positive 0.29% return over the two day event period and a negative 0.10% return over the three day event period, which are - for that matter - not significant. Important factors included in Kang's research that are expected to influence the bidder returns or surprisingly do not influence the bidder returns, are debt level, leverage ratio, tax motives, exchange rate movements and competition. Kang observes that bidders who have a higher debt level achieve better returns. The loan ratio has a positive effect on the bidder return. This can be explained by the fact that higher debt could mean higher monitoring by lenders and therefore it is less likely that companies venture into negative net present value (NPV) projects with their free-cash flow (Jensen, 1986, Kang, 1993). The leverage ratio has a significant different from zero (at the 5% level) positive effect on bidder gains. It is observed that tax motives do not give an explanation for the bidder returns. Exchange rate movements do have an positive influence, which is significantly different from zero at the 5% level. If all other variables are controlled, a doubling of the yen relative to the dollar will yield a 13% increase in the gains for Japanese bidders. Regarding the effect of the competition, it is observed that if there is more than one bidder present, this will have a negative influence on bidder returns (Kang, 1993). Probably the gains are competed away by the different bidders in favor of the target.

Despite the fact that the goal of the paper of Kang, Shivdasani and Yamada is not exactly the research of bidder abnormal returns in Japan, some interesting results can be retrieved from it. They use a sample of 154 nonfinancial Japanese bidders in the period from 1977 until 1993. The CAR that is observed around a two day announcement period (the day before the announcement day and the announcement day itself) is +1.17% and significant at the 1% level. The three day announcement period (one day before the announcement until one day after the announcement) yield a CAR of 0.90% and is significant at the 5% level. Furthermore Kang, Shivdasani and Yamada focus on information and interests asymmetry according to the agency-principal theory (Jensen, 1986). With a lack of insight and information about the company, this could lead to managers pursuing their own interest, which consequently could lead to a deviation of the optimal investment strategy and wealth maximization from the shareholders perspective. More specific they look whether there is a difference between companies that have a close relationship with banks (and thus the banks are assured to be well-informed) and companies that do not. It is concluded that a strong relation between banks and the company has a positive effect on

shareholders' value (Kang, Shivdasani and Yamada, 2000). The existence of a positive relation between a bank and a company could lead to the conclusion that the Japanese Keiretsu system, in which companies are grouped around a central bank, is in general positive for shareholder value due to increased monitoring of the different companies in the group by the main bank. However, if controlled for subgroups in which a test is performed whether there is a difference in returns between targets and bidders that have the same main bank compared to targets and bidders that do not, no difference could be observed. The conclusion can be drawn that the main bank does not provide the bidder with extra and better information regarding the target, in which the bank is also involved, which could have lead to a better understanding of the value of the target. Furthermore Kang, Shivdasani and Yamada do not observe a 'noticeable' difference between takeovers in the same industry compared to takeovers that involve different industries. They observe that mergers that are initialized in order to rescue a distressed friendly target company yield significant negative 1.2% average returns to the bidders, at the 10% level. Lastly Kang, Shivdasani and Yamada conclude that method of payment or whether the target is privately or publicly held, do no yield a positive influence on the CAR (Kang, Shivdasani and Yamada, 2000).

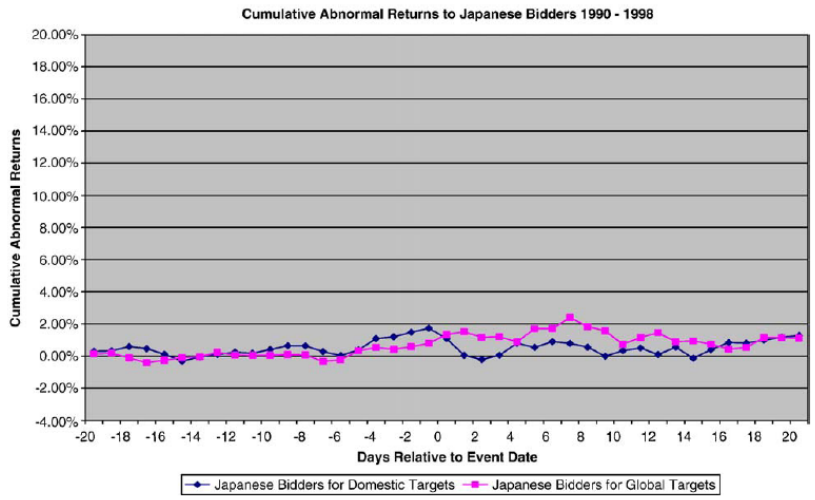
Yeh and Hoshino have done the research with the longest timeframe compared to the other researchers reviewed in this section. Yeh and Hoshino's research period covers the years 1981 until 1998. However this relative long timeframe did not yield a larger sample group then the research done by others. The sample contains only 89 domestic, Japanese mergers, which appears to be small for such a long timeframe especially if you compare the sample to the sample of Kang (Kang, 1993), which is twice as large if you compare the relative amount of companies per year studied (13.85 against 5.2). The small sample size is possibly due to the limitation to domestic acquisitions. The division of the mergers over time is skewed to the present. Yeh and Hoshino observed a significant (at the 1% level) negative 1.01% three day CAR for the bidder. In order to control for the possibility of premature information revelations, seven other event-periods were tested of which the general trend was a negative or zero CAR. It should be noted that only the results of the 1992 to 1998 time period yield negative CAR. For the 1980 to 1992 time period a positive CAR can be observed. Yeh and Hoshino state that they do not find any evidence to support the hypothesis that the main bank structure of Japan creates shareholder value through good monitoring, but they also state that because of the weakened banks (the banks were weakened due to the bad economical situation in the nineties), the banks may be less capable of good monitoring. Further, they do not find evidence that the cross-holding of shareholders, which is very common in Japan, leads to improved monitoring. They conclude that traditionally cross-holding of shares between companies combined with inactive monitoring will lead to management entrenchment (Yeh and Hoshino, 2001).

Higgins and Beckman have performed a research overlapping the regulation changes of the late nineties. Their sample runs from 1990 until 2000 and includes the legislative changes of 1998 and 1999, and contains 152 observations of which are 85 domestic bids and 67 global bids done by

Japanese companies. Abnormal returns of domestic bidders are identified as significant at the 5% level, the abnormal returns for companies that are involved in bidding for foreign targets are not significant. The domestic bidders have a CAR of +4.73% for a 41 day event period, which runs from 20 days before the announcement date until 20 days after the announcement date.

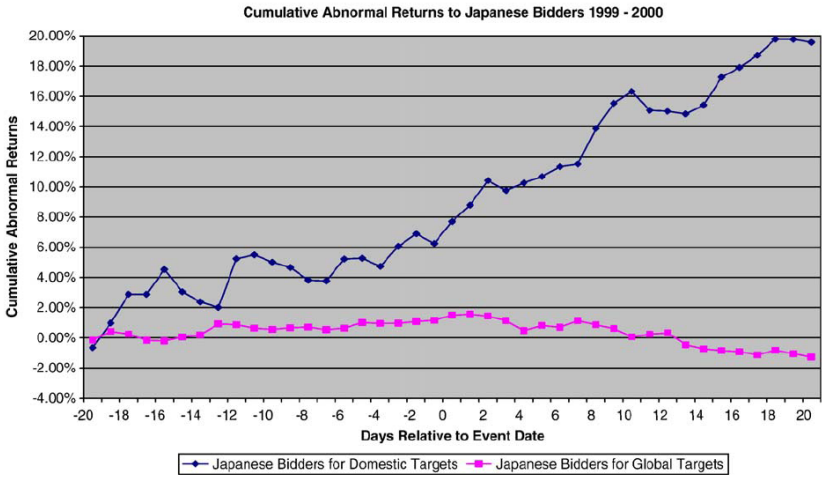
When a differentiation is made between the pre-legislation change period and a post-legislation change period, a profound difference in results is observed. For the period after 1999-2000 domestic bids have a CAR of +19.58% which is significant at the 5% level. For bidders for foreign targets the CAR is -6.51% and this is significant at the 10% level for the 41 day event period. In contrast with these results, the results for the CAR of the 1990-1998 period are insignificant for both bidder groups. When comparing figure 2.3 to figure 2.4, in which the development of the CAR over time is presented for the time period before and after 1998, a very distinct pattern difference can be observed for the domestic bidders. Higgins and Beckman claim that the difference between the two time periods stems from the fact that there is a diversification discount for the global bids which results in higher costs for global bids than for domestic bids. Also, it is reasoned that the legislative changes have their expected effect in promoting takeovers. Higgins and Beckman show that size, growth, leverage and governance do not affect the results, because the results that the different control variables yield are insignificant (Higgins and Beckman, 2006). These findings partly contradict the findings of Kang, Shivdasani and Yamada.

Figure 2.3: Cumulative Abnormal returns to Japanese Bidders 1990-1998



Source: Higgins and Beckman (2006)

Figure 2.4: Cumulative Abnormal returns to Japanese Bidders 1999-2000



Source: Higgins and Beckman (2006)

Inoue's findings are in line with the findings of Beckman and Higgins. He also found a profound difference in abnormal returns between the pre-legislation change period and the post legislation change period. Inoue finds significant abnormal returns of the bidder after 1999 and insignificant abnormal returns before 1999 (Inoue, 2002).

In summary, the results of the different articles give the notion of positive abnormal returns for Japanese bidders, except for the 1991-1998 time period. The 1991-1998 time period is typified as the post 'bubble' (high economical growth) period, in which banks had a lot of bad debt on their balances and the economy was in a state of 'crisis'. It is argued that bank monitoring was not as effective in the early nineties as it was in the past, because of the bank trouble in this time period (Kang and Stulz, 2000). The on average positive abnormal bidder returns that are found in Japan are in contrast to the findings in the Western world, where in general zero or even negative abnormal returns for the bidders can be observed.

The results regarding banks in Japan and the influence of their relation on the companies on the bidder returns are of mixed effect. Kang, Shivadasani and Yamada (2000) conclude that banks have a positive effect on bidder returns whereas Yeh and Hoshino (2001) conclude that there is no effect. This could stem from the fact that Kang, Shivadasani and Yamada include a part of the troubled nineties in which monitoring by banks was less than before, because banks were weakened during this period. Furthermore, no evidence is found that cross-holding of shares has a positive effect. Evidence for leverage influence is mixed. Kang (1993) presents results that show that leverage has a positive influence on bidder returns, but Beckman and Higgins (2006) show results that do not indicate an influence of leverage on bidder returns. The major difference is again the time period of which the latter study contains a period in time in which there was a financial crisis. Other factors that have a positive effect on bidder returns are: relative size (small-ratio for mergers have a positive effect) and exchange rate increase.

Table 2.7: Summary results Japanese bidders returns

Author	Sample Period	Event Period	Sample size	Target CAR (significant at % level)	Bidder CAR (significant at % level)	Remarks (regarding to the bidder)
Pettway and Yamada	1977-1984	Different for sub-samples	97	3.76% (***[10])	0.823% (unknown)	Relative size Target-Bidder influences bidder (positive effect for small-ratio mergers)
Kang	1975-1988	2 days, one day before the announcement day and the announcement day	119 bidders and 102 targets	9.07%****[11] (-4.69)	0.59% (5%)	Debt/Leverage level positive influence, tax negative influence, Exchange rate increase positive influence, Competition negative influence
		3 days, one day before the announcement until one day after the announcement day		9.42%**** (4.83)	0.51 (10%)	
Kang, Shivdasani and Yamada	1977-1993	2 days, one day before the announcement day and the announcement day	154	n/a	1.17% (1%)	Sample contains nonfinancial bidders. Close ties to main bank yield significant positive returns. No effect of horizontal integration, method of payment and privately or publicly held target. Rescuing a distressed target has a negative influence on bidder returns.
		3 days, one day before the announcement until one day after the announcement day		n/a	0.90% (1%)	
Hoshino and Yeh	1981-1988	61 days, 30 days before announcement day until 30 days after the announcement day	89	n/a	-1.01% (1%)	The main bank has no influence on bidder returns. Cross-holding of shares result not in gains
Beckman and Higgins	1990-2000	41 days, 20 before the announcement day and 20 days after the announcement day	152	n/a	4.73% domestic target (5%) -1.27% foreign targets (***)	Differences in results from pre-legislation change period compared to post-legislation change period. Growth, size, leverage and governance do not influence bidder returns.
,,	1999-2000	41 days, 20 before the announcement day and 20 days after the announcement day	67	n/a	19.58% domestic (5%) -6.51% foreign targets (10%)	
Inoue	1990-2000	Unknown	Unknown	Positive and larger than previous research (unknown)	Negative before 1999 (***) Positive after 1999 (significant)	Did not analyze the determinants of the CAR

Negatively influencing factors of bidder returns are taxes, competition (the more bidders, the less bidder returns) and rescuing a distressed target. The tax effect is not expected because one would expect a positive return of tax benefits instead of a negative effect of tax benefits, which

[10] *** indicates not significant in table 2.7
[11] **** indicate significant at the 5% level, but the value between brackets are t-statistics

contradicts common sense. Competition results, in contrast to tax benefits, are intuitive because if there is more competition which leads to a bidding contest, this will put pressure on the price that has to be paid eventually and possible bidder gains are transferred to the target. The negative effects of rescuing a troubled target could come from the fact that the acquisition was initialized under the pressure of a bank that is a creditor to the bidder as well as to the target (Kang, Shivdasani and Yamada, 2000).

Control factors that where researched but do not have any influence on bidder abnormal returns are method of payment, private relative to public targets, growth, size and governance.

3. Methodology & Data

In this chapter the outline of the methodology and data selection procedure will be presented. In section 3.1 the source(s) of the data and the data selection procedure is described. Section 3.2 describes the methodology. This implies the section starts with explaining the base period and event period as is applied to this thesis. Furthermore, the calculation of abnormal returns and cumulative abnormal returns is explained. The section concludes with outlining the control factors which apply to the regressions used to control for the influence of underlying variables on the cumulative abnormal returns.

3.1 Data

The identification of companies that were involved in an acquisition is done by the information that is retrieved from marketlineinfo.com (MarketLine, 2008). In addition, information about announcement or completion dates and which companies were involved in an acquisition is obtained. However, it is the announcement date that is the date of interest and not the completion date. The fact that the announcement date is of importance and not the completion date is based on the efficient market hypothesis. Under the efficient market hypothesis it is expected that when new information becomes available to the market this information is immediately and completely incorporated in the stock prices. Therefore, when the completion date would be used for this research, no effect around the event date (in this case the completion date) will be observed, because of the fact that information of the acquisition was already incorporated into the stock prices previously at the announcement date (Jensen and Ruback, 1983). For the companies for which only the completion date is published and not the announcement date, the announcement date was retrieved by other news sources[12]. If several different announcement dates were found, the earliest announcement date available is used, for the reason that this is the earliest proof of the acquisition and thereby reveals information of the process to be expected. Agrawal and Jaffe use a similar method of selecting the appropriate announcement date (Agrawal and Jaffe, 2003).

In this thesis, the period of the first of January 2000 until the first of August 2008 is researched. This particular period in time is selected because it starts after the regulation changes of the late nineties and includes data until the most recent point in time of which it is possible to retrieve data. An initial sample of 1215 financial deals under the header acquisitions is found. This included, among other things, 193 100% acquisitions, 391 majority acquisitions and 325 minority acquisitions. The acquisition deals that lead to effective control of the target company are selected, i.e. this includes 100% acquisitions, majority acquisitions and minority acquisitions in which the bidder previously already acquired part of the target company and with the additions of the latest acquisition the ownership of the target by the bidder is over 50%, resulting in effective

[12] Note: News sources such as press releases, articles in papers, etcetera.

control. The reason that effective control is a selection criteria is that only in a situation of full control the new owner will be sure to be able to implement new strategies and reorganizations 'without' opposition; which enables the new owner to fully utilize the advantages that stem from the combined organization. Support for this position can be found in the article of Kang, in which he provides evidence that companies are able to achieve greater returns when a company buys a majority stake compared to a minority stake (Kang, 1993). Furthermore, the sample is limited to acquisitions involving one target and one acquirer. Moreover, a condition for an acquisition to be included in the sample is that the target and bidders are not participating in more acquisition deals within the base period and event period, because it would be impossible to distinguish the influence from one acquisition to another. An additional condition is that public stock data for the bidder is available for the full base and event period. Finally, all bidder companies have a TOPIX (TOkyo stock Price IndeX) listing (Tokyo Stock Exchange Group Inc., 2008).

The final sample of companies that comply with the criteria as stated above has a size of 317 companies which includes: 102 100% acquisitions, 194 majority acquisitions and 21 minority acquisitions. The mean total assets market value of the full sample is ¥ 1,232,792,000,000, with a large difference between the largest and the smallest company. The companies are from a wide range of industries with no industry in particular having an overrepresentation compared to the other industries. In the sample period there are more, almost twice as much, domestic acquisitions than foreign acquisitions, with 65,40% of the acquisition being domestic acquisitions and 34.7% foreign. The vast majority of the targets are privately held targets, which is, as later described, the most important reason that target data is scarce. A possible reason why the target companies tend to be privately and not publicly held is an enduring lack in trust of public companies, who historically did not always disclose the actual state of their company, as pointed out in section 2.3.3. If the types of acquisition are compared it is observed that the largest group is the majority acquisitions and the smallest group is the minority acquisitions with 100% acquisitions in between these two groups. The mean for Tobin's Q ratio and leverage are respectively 1.61 and 22.17. The mean Tobin's q ratio indicates value maximizing of the investment, or overvaluation. The median of the Tobin's q ratio is 0.97, however it should be noted that there is a standard deviation of 3.87. The dividends per share one year growth and the total assets one year growth are respectively 25.32% and 17.78% with some extreme values, yet most observations are much closer to the mean, as the standard deviation indicates. See also table 3.1 and table 3.2 for additional information. A further analysis and interpretation of control variable results will be given later in this chapter.

Table 3.1: Description of data

Variable	Total		Domestic		Foreign	
	n (sample size)	% of Sample size	*n* (sample size)	% of Sample size	*n* (sample size)	% of Sample size
Domestic	207	65,30%	-	-	-	-
Foreign	110	34,70%	-	-	-	-
Private	259	81,70%	169	81,64%	90	81,82%
Public	58	18,30%	38	18,36%	20	18,18%
100% Acquisition	102	32,18%	63	30,43%	39	35,45%
Majority Acquisition	194	61,20%	130	62,80%	64	58,18%
Minority Acquisition	21	6,62%	14	6,76%	7	6,36%

Table 3.2: Descriptive statistics control variables

	Total Assets at Market Value (in millions)	LnSize	Tobin's Q Ratio	Leverage	Dividend per share 1 Year Growth (%)	Total Assets 1 Year Growth (%)
Mean	¥ 1,232,792	12.31	1.61	22.17	25.32	17.78
Median	¥ 257,523	12.46	0.97	18.84	10.00	3.99
Maximum	¥ 22,810,590	16.94	55.19	89.54	900.00	1356.18
Minimum	¥ 213.08	5.36	0.07	0.00	-100.00	-92.12
Std. Dev.	¥ 2.313.577	2.23	3.87	19.67	71.55	103.04

As Kang, Shivdasani and Yamada characterize their sample of 133 Japanese bidders as 'comprehensive' (Kang, Shivdasani and Yamada, 2000), which is in addition the largest sample of the reviewed articles in section 2.4, it is fair to state that the sample selected for this research is thorough in size compared to previous research regarding the Japanese acquisition market.

Besides the descriptive statistics and the absolute number of observations the division of the observations over time should be noted. As figure 3.1 and 3.2 indicate, the sample is clearly skewed to the present. The decreasing trend of 2008 of figure 3.1 is deceiving because 2008 is not a complete year as the sample runs until the first of August 2008. If the data of 2008 is recalculated as it were a full 12 month period, the trend of figure 3.2 appears. The increasing trend of the 2000-2007 period is largely sustained except for the subgroup 'foreign'.

Figure 3.1: Acquisitions through time[13]

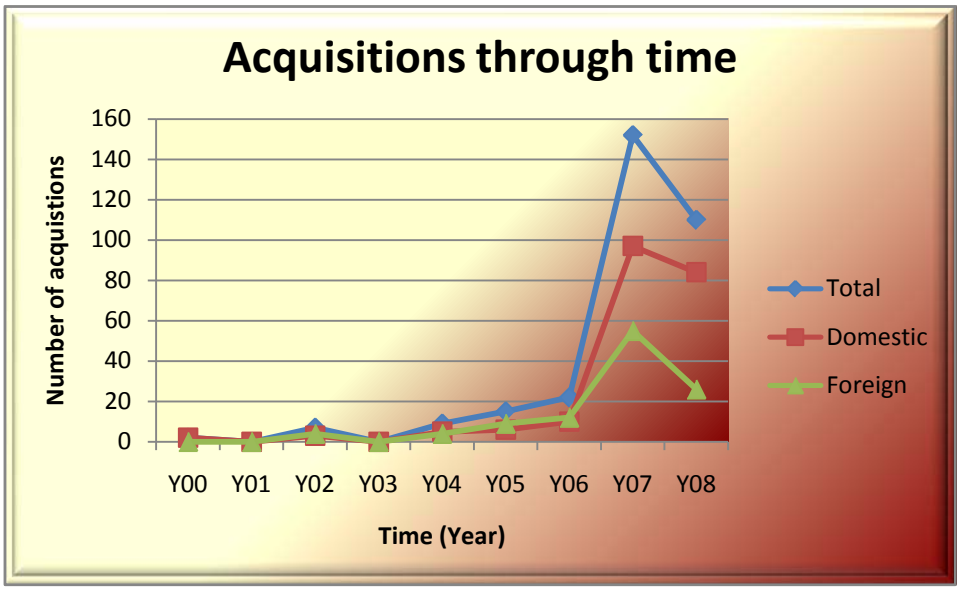
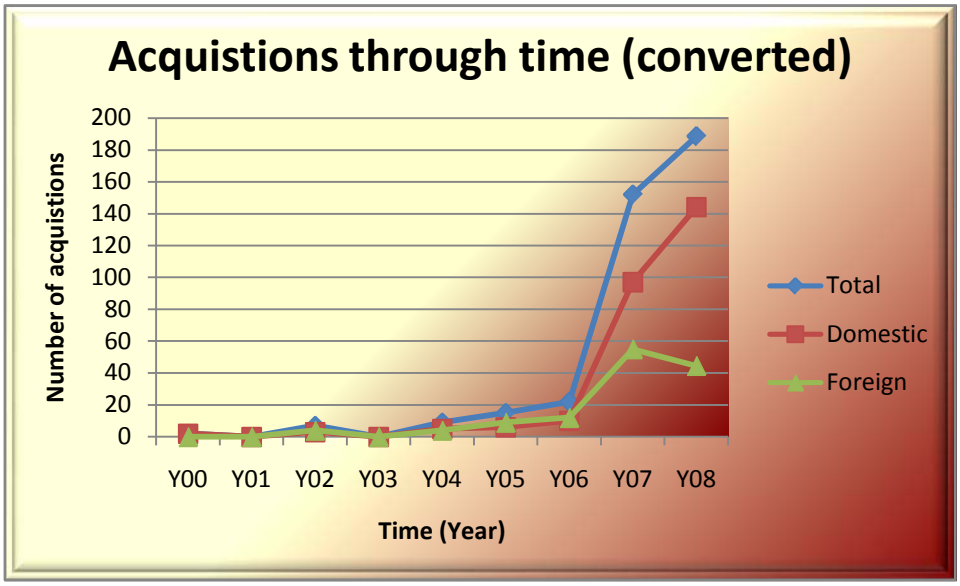


Figure 3.2: Acquisitions through time (converted[14]**)**



3.2 Methodology

The method of event study is chosen for this particular research, because under the condition of rationality, an efficient market and a specific event - in this case the announcement of an acquisition - the effect can 'instantly' be observed in stock prices (MacKinlay, 1997).

Daily stock returns are chosen as the basis to calculate the (abnormal) return. The reason that daily stock returns are chosen is that the power of the tests based on daily returns is much larger

[13] Note: Keep in mind that the year 2008 only runs until the first of August 2008. The data of the other years covers a full year.

[14] The data of the year 2008 runs until the First of August. The available data is converted to a full year based on the trend of the data that is available of the year.

than for example monthly returns (MacKinlay, 1997, Morse, 1984). Daily stock returns are the shortest time-frame of which data is available and are therefore the most accurate data available that can be used for this kind of research. Moreover, it is not even clear whether a shorter time-frame than daily returns will yield better results because this shorter time-frame introduces some problems (MacKinlay, 1997). In short: longer than a daily time-frame reduces the power of the test and a shorter time frame is not feasible or practical and as a consequence daily stock returns are chosen as the basis of the data for this thesis.

In this thesis, for the tests normality is assumed. Despite the fact that daily stock returns are used under the assumption of normality, daily stock returns differ more from normality than monthly returns. In addition to this, there is the problem with daily stock returns of 'non-synchronous trading'. Not all shares have the same frequency of trading and this could affect the Ordinary Least Squares (OLS) estimates of market model β which results in a biased and inconsistent β. Despite this, the results of Browner and Warner do not indicate that in the case that non-synchronous trading is not taken into account, it results in 'misspecification of event study methodology using the OLS'. Furthermore, Brown and Warner show that alternative procedures as the Scholes-Williams and Dimson-based procedure do not yield better results in regard to the specification nor the power of the tests either; especially in the case in which no abnormal returns are observed (Brown and Warner, 1985). The problem of non-normality, in accordance to The Central Limit Theorem, can be overcome with a sufficient sample size, because the distribution of the sample mean excess return converges to normality as the sample size increases (Billengsley, 1974). Moreover, the problems with normality are less profound with cross-sectional mean excess returns than for individual stock returns (Brown and Warner, 1985). The sample of this thesis is sufficiently large to overcome the problems of non-normality in accordance to The Central Limit Theorem.

Non-synchronous trading can produce serial correlation (or alternatively frequently referred to as autocorrelation) in the abnormal returns if intervals of more than a day are used. Based on the results of Brown and Warner for 11-days event periods, that does not take into account serial correlation but is well specified, the conclusion can be drawn that serial correlation is of minor importance. The problem of serial correlation and its influences could become more profound the longer the event period becomes. In the case of this thesis the primary research period has a short, three day event period, and only the control group has a longer than the Browner and Warner 11-days event period. Furthermore, with increasing the length of the base period, the sample error reduces to zero and therefore the influence on serial correlation (MacKinlay, 1997). Because of the combination of the short event period and a long 200 day base period, which will be explained later in this section, it is expected that the influence of serial correlation, if present, will be trivial, based on the results of Brown and Warner and MacKinlay (Brown and Warner, 1985, MacKinlay, 1997).

3.2.1 Test-Period

In previous research different time periods were chosen as the event period or test-period, from periods longer than 60 days to 2 day periods. For this particular research a test-period of 3 days (from -1 days before the event day until +1 days after the event day) is chosen. The motivation for choosing this time frame is to make sure that the announcement effect is observed as precisely as possible. A smaller event test period could lead to unreliable results, because on the announcement day it is not clear whether the announcement is done before stock exchange opening, after stock exchange opening or during the day. Also, information leakage to the market before the announcement is overcome by taking the day before the event day into account.

The stock prices of the announcement day should capture the information or announcement effect as is previously described in section 2.2.1, but it could be the case that errors are made in the publishing process or the publisher's sources are wrong. Besides, information leaks before the announcement date could influence the pricing of stocks. Performing a second test as a robustness test for a somewhat longer time frame should be sufficient to be confident to exclude, for a large part, these influences on the results. For the longer time frame a test-period of 41 days is chosen (from -20 days before the event day until +20 days after the event day). A further advantage of the second and longer 41 days time frame is the relative comparability with the research of Higgins and Beckman (Higgins and Beckman, 2006). In this article, a timeframe of 41 days is also chosen. The mayor difference with this research is that the research of Higgins and Beckman took place in the nineties. Taking a longer test period could jeopardize the reliability of the tests and therefore the P-values could increase, because there is also the risk of including unnecessary days. Therefore, the second 41 day event period test is done as a robustness check for the first test, which is the test for three day event period.

3.2.2 Abnormal Returns

In order to obtain the abnormal returns around the announcement day, the return data has to be calculated for the situation in which no acquisition has taken place. The period over which the parameters are estimated is 200 days, starting at day -220 until day -20 before the announcement date. This is the base period. The following formula, formula one, is used to estimate the parameters:

$$R_{it} = \hat{\alpha}_i + \hat{\beta}_i R_{mt} + \varepsilon_{it} \quad (1)$$

In which R_{it} is the daily return of bidder *i* at day *t* with the assumption that if there is any dividend from the stock this will be reinvested. R_{mt} is the daily return at day *t* of the index of returns to all firms on the market index, for example the Tokyo Stock Exchange (Higgins and Beckman, 2006). The data of the stock exchanges is obtained through the Thomson ONE Banker (Thomson, 2008). The parameters $\hat{\alpha}_i$ and $\hat{\beta}_i$ are estimated by using the Ordinary Least

Square (OLS) method (Brooks, 2005, Kennedy, 2003), ε_{it} is the error term from this estimation. In order to check whether the OLS can be used under the condition of the Gauss-Markov Theorem several tests will be performed to observe whether these conditions are not violated. Tests for the following conditions will be done: the errors have zero mean, the variance of the errors is constant and finite over all values of R_t (homoskedasticity) and that there is no relationship between the errors and corresponding *x* variate (endogeneity) (Brooks, 2005).

The abnormal returns for every individual firm, in the test period of 3 (41) days, from day -1 (-20) till +1 (+20), the ending day, is calculated by formula two:

$$AR_{it} = R_{it} - \left(\hat{\alpha}_i + \hat{\beta}_i R_{mt}\right) \quad (2)$$

Formula 2 is the so called market model (MacKinlay, 1997). With AR_{it} as the abnormal return for firm *i* at day *t* (Higgins and Beckman, 2006, MacKinlay, 1997).

This particular method of calculating the abnormal return is selected because this method is expected to yield sound results and is acknowledged in the scientific literature (MacKinlay, 1997). This method allows therefore for a reliable and a more or less fair comparison of the results from this research to previous researches and particularly the research of Hung N. Higgins and Judy Beckman (Higgins and Beckman, 2006)[15].

The cumulative abnormal return is calculated as the sum of the individual abnormal returns, as is shown by formula three:

$$CAR_i = \sum_{t=t_1}^{t_n} \widehat{AR}_{it} \quad (3)$$

After retrieving the CAR returns, first a One-Sample T-Test is performed in order to test whether the mean of the CAR's are statistical significantly different from zero, i.e. H_0: mean CAR = 0 against H_1: mean CAR≠ 0. If the results are significant ly different from zero, the conclusion will be that there are cumulative abnormal returns for the test group in the test period. If they are not significantly different from zero, this does imply that no cumulative abnormal returns could be observed.

[15] One should always keep in mind that it is not possible to compare results of different articles on a one to one basis, because of, among other things, methodology differences.

The formula that is behind the T-Test that is performed formula four:

$$T - Statistic = \frac{\bar{X} - \mu_0}{\sigma / \sqrt{n}} \quad (4)$$

With $\bar{X}$ as the estimated average cumulative abnormal return, μ_0 is zero in order to test the H_0: the Japanese bidders do not have a significant different cumulative abnormal return compared to zero, σ as the standard deviation and n as the number of observation included in the test. The T-test is performed for the total sample and for the subgroups 'Domestic' and 'Foreign' separately.

Regressions on the control factors as the dependable variables against the independable variable, which is the CAR for the total group is performed. Multivariate regressions in the form of formula four are run on several control factors against the CAR's in order to present what influence, if any, varying control variables may have on the CAR.

$$CAR = \alpha(1) + \beta(2)*X_1 + C(3)*X_2 + \ldots.. C(n)*X_n \quad (5)$$

The next sections describe which and why particular control factors for this research are selected.

3.2.3 Control variables for the CAR

As described in Chapter 2 – Literature, there are many different determinants that have a possible influence on the CAR results and on that account should be controlled for. However, it is not possible to control for all the determinants that are pointed out in the literature. There are several reasons why not all theoretical determinants could be applied in this research, such as method of payment, level of competition, bargaining power and government influence, but the most important one is data availability. For example, the control factor government, as used in the article of Higgins and Beckman, the data originates from the PACM report (Higgins and Beckman, 2006). Unfortunate enough, this report is not up to date for the time frame involved in this thesis and therefore this determinant is excluded as a control factor.

In this thesis the variables that are included as a control variable, or proxies for the control variables, are: size, growth, leverage, over(under)valuation and/or overinvestment versus value maximizing of the investments, private versus public targets, time and confidence. All these control variables will be tested on the total sample group as well as the separate groups for domestic and foreign acquisitions. An acquisition is classified as 'Domestic' when the target as well as the bidder is Japanese. If only the bidder is Japanese and the target is from any other country than Japan, the acquisition is classified as 'Foreign'. Secondly, a differentiation

between public and private targets is made. The distinction between these targets is made, for the reason that in the case of a private company the ownership tends to be concentrated compared to public companies. In addition, private target acquisitions tend to create large block holders which are associated with a higher monitoring level which could result in increased firm value (Chang, 1998). The information whether the target company is a private company or a public company is obtained from marketinfo.com. A target company is classified as a private company or a public company as marketlineinfo.com states that it is private or public (MarketLine, 2008).

Thirdly, the control variable 'size' is selected as a determinant, because in previous (Capron and Pistre, 2002, Eckbo and Thorburn, 2000, Moeller, Schlingemann and Stulz, 2004) it is explicitly stated that factor 'size' has a influence on the abnormal returns. The proxy for size is the natural logarithm of the market value of the total assets of the year before the announcement year. In the article of Moeller, Schlingemann and Stulz it was observed that the factor size has a significant negative influence on abnormal returns, which indicates that a larger firm size has a negative influence on the bidder abnormal returns that can be achieved. This negative influence of the size factor is confirmed by the article of Eckbo and Thorburn (Eckbo and Thorburn, 2000). The selecting of total assets at market value as a proxy for size is in correspondence with the method of Moeller, Schlingemann and Stulz, who also use as proxy the total assets at market value for the size (Moeller, Schlingemann and Stulz, 2004). Fourthly, the factor 'growth' is taken into account as a control factor because it is argued that a fast growing bidder can utilize the potential of a low-growth target firm. The proxy for growth will be total 1 year assets growth, the year before the announcement date, and is chosen because the company illustrates a commitment and the expectancy of higher long term output. If for example sales growth was taken as a proxy for growth this proxy can be influenced by a temporarily increase in sales that will not be sustained and in addition can also be manipulated by temporary adjustments in policy such as decreases in prices. For assets it is harder to make short term, opportunistic adjustments. Fifth, Tobin's q ratio is included, as Tobin's q ratio is used as a proxy for over(under)valuation and/or overinvestment versus value maximizing of the investments. As a sixth determinant the leverage of the companies is reviewed. Leverage illustrates whether the acquirer can afford the acquisition or it is an indication of monitoring levels. The seventh determinant that is used is one year dividend growth. The reason that this variable is taken into account, despite the fact that this factor is not commonly used as a control factor in these kind of tests as performed in this thesis, is that it can be seen as a proxy for confidence of the bidders management in the future. Managers are in accordance to the agency-principal theorem reluctant the reduce dividend level, because the market interprets dividend reduction as an information signal that the future will be worsening for the company and stock prices will fall as a result of this. On the other hand it can be stated that the increase of the dividend level conveys information about the positive attitude of the management to the future. This is because the management is aware that a future decrease of the (increased)

dividends will yield a communication of the expectation of a worsening situation for the company. They communicate that they are so confident that they will be able to maintain the new, higher dividend level that they are willing to increase the dividends level and willing to take the risk that they have to reduce dividends in the future, but are confident they do not have to (Jensen, 1986). The eighth and last control factor is time. To be able to control for time, dummies are used to include the factor time into the regression. In any case, in this thesis where only qualitative data is available, dummies are used in order to transform the qualitative data in usable quantitative data in the different regressions. The control factor time is added to the control factors, because the different time periods (years) can have a different influence on the CAR. By testing the factor time it is possible to check whether the whole time period has the same influence on the results or that specific years have a different influence on the CAR. A separate multivariate regression from the other control factors is run against the CAR for the control factor 'time'.

4. Empirical results and discussion

In this chapter the empirical results of this thesis will be presented and commented on. This chapter starts with section 4.1, in which among other things, the CAR results of the research of this thesis will be shown and reviewed. Secondly, the correlation matrix of the control variables is given. In section 4.2 the regression results of the control variables are given. An interpretation of and comments on the results are given regarding the CAR of the three day event period and the robustness of these results. In section 4.3 the results are discussed and the connection to the literature of chapter 2 is made. The last section, section 4.4, is the limitations section. In this section the research of this thesis is critically analyzed and reviewed. Improvements in methodology and/or data selection are suggested. In addition, some suggestions regarding future research will be made.

4.1 Empirical results of the CAR and the correlation of the determinants

Of the 317 sample group 'Total' 156 bidders have a positive return, 160 have a negative return and one has a exactly zero return. In the subgroup 'Domestic' there are 103 bidders that have a positive return and 104 that have a negative return. The results for the subgroup 'Foreign' are 53 positive, 56 negative and one zero returns. All three groups have therefore relatively as much negative as positive returns in absolute amount of numbers in their sample.

In table 4.1 the CAR for the subgroups 'Domestic', 'Foreign' and the total group with their relative P-values are presented. For the three day event period none of the null-hypotheses of zero average mean has to be rejected as the P-value amply surpasses the significance threshold of 5% and even 10%. The results for the 41 day robustness event period for the group foreign acquisition and the total group of acquisitions do yield significantly different results from zero and accordingly the null-hypothesis of a zero mean has to be rejected. For both groups, foreign and total, the cumulative average return yields positive returns, respectively a 1.267% positive return for the foreign acquisitions and a 0.666% return for the total group of domestic and foreign acquisitions combined.

Table 4.1: Cumulative abnormal returns

Group	*n* (sample size)	CAR 3 days % (P-value)	CAR 41 days %(P-value)
Domestic	207	0.655 (0.603)	0.346 (0.318)
Foreign	110	0.376 (0.815)	1.267 (0.030)*[16]
Total	317	0.558 (0.574)	0.666 (0.028)*

Some further interesting observations can be made from the descriptive statistics as presented in table 4.2, as it reveals a wide range of the returns as the maximum, minimum and the standard

[16] * Significant at the 5% level in table 4.1

deviation shows. The maximum, minimum and standard deviation of the three day CAR for the total group is respectively 78.122%, -70.795% and 17.656%, whereas the CAR mean is 0.558%. Furthermore, from table 4.2 the observation can be made that there is distinction between the spread between the three day event period results and the longer 41 day event period, which is smaller for the longer event period. In addition, it is interesting to see that in two cases the median yields a negative return, despite the fact that the sample mean has a positive return, however it should be kept in mind that the results of these two cases are not significantly different from zero.

Figure 4.1: Indexed Cumulative Abnormal Returns

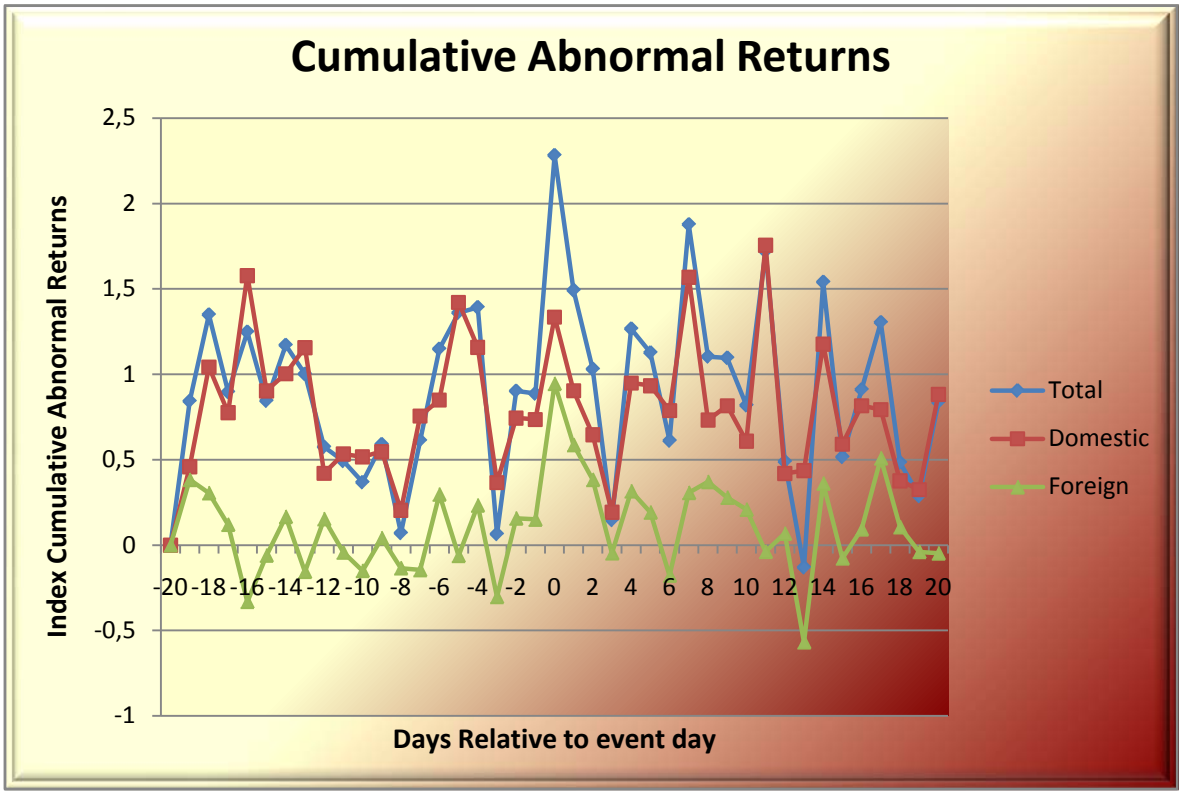


Table 4.2: Descriptive statistics CAR

	Total		Domestic		Foreign	
Variable	CAR 3 days	CAR 41 days	CAR 3 days	CAR 41 days	CAR 3 days	CAR 41 days
Mean	0.558	0.666	0.655	0.346	0.376	1.267
Median	-0.132	0.190	-0.007	0.160	-0.486	0.290
Maximum	78.122	52.073	78.122	24.081	62.362	52.073
Minimum	-70.795	-20.421	-70.795	-20.421	-41.848	-9.076
Standard Deviation	17.656	5.375	18.115	4.975	16.837	6.036

As can be seen in section 3.1 in table 3.1 and 3.2 the sample is skewed over the test period. In order to control for the time period a regression with dummies for the different years is performed of which the results are presented in table 4.3. The results in table 4.3 show that the years 2000, 2002, 2007 and 2008 have results that are positive and significantly different from zero at the 5% level, and when a significance level of 10% is used also the year 2005 is significantly different from zero. In other words: only the year 2004 does not have results that are significantly different from zero, which means the null-hypothesis of zero average mean cannot be rejected in this case. Additionally, all years, except the year 2000, show a positive coefficient.

Table 4.3: Regression years[17]

	Coëfficiënt	P-Value
Constant (Year 00)	-0.2588	0.0373
Dummy Year 02	0.2865	0.0421
Dummy Year 04	0.1903	0.1652
Dummy Year 05	0.2336	0.0773
Dummy Year 06	0.3084	0.0176
Dummy Year 07	0.2497	0.0459
Dummy Year 08	0.2895	0.0211

Table 4.4: Correlation Matrix control variables (Total)

Determinant	LnSize	Tobin's q Ratio	Leverage	Dividend per share 1 Year Growth	Total Assets 1 Year Growth	Domestic	Private
LnSize	1.0000	-0.0488	0.1648	0.1930	-0.0336	-0.2556	-0.1427
Tobin's Q Ratio	-0.0488	1.0000	-0.1451	0.0743	0.5219	0.0247	0.0577
Leverage	0.1648	-0.1451	1.0000	-0.0303	-0.0929	0.1580	-0.0402
Dividend per share 1 Year Growth	0.1930	0.0744	-0.0303	1.0000	0.3411	-0.0695	-0.0140
Total Assets 1 Year Growth	-0.0336	0.5219	-0.0929	0.3411	1.0000	-0.0310	0.0667
Domestic	-0.2556	0.0247	0.1580	-0.0695	-0.0310	1.0000	0.0215
Private	-0.1427	0.0577	-0.0402	-0.0140	0.0667	0.0215	1.0000

Table 4.4, the correlation matrix of the control variables, shows that no multicollinearity is present between the control variables. The highest correlation that is present is between the

[17] Note: The years 2001 and 2003 are not included in the table because there were not any acquisitions in these years and therefore no CAR results are present.

control variables Tobin's Q Ratio and Total Assets 1 Year Growth and is 0.5219, which is below the threshold of 0.7. The different control variables are thus independent enough from each other to not influence the results of other control variables.

Furthermore, tests for endogeneity and heteroskedasticity are performed. The correlation between the residual and the different independent variables is low for the different models and therefore the conclusion is drawn that no endogeneity is present for the different tests. Heteroskedasticity is observed with several models, but was corrected by transforming the test form OLS to Generalized Least Squares (GLS) in applicable cases. As is described in this chapter, no multicollinearity is observed for the different tests in the sample of this thesis.

4.2 Statistics of the control variables

In table 4.5 the regression results for the different models of the different control variables on the three day CAR are presented. The control variable Tobin's q ratio yields results that are significantly different from zero for all the models and has a consistent negative influence on the CAR. This implies that when the Tobin's q ratio yields a high value, which implicates value maximizing of the investment for the company or overvaluation, this results in a negative influence on company bidder returns. The finding of the negative relation between the Tobin's q ratio and the CAR is consistent with the findings of Moeller, Schlingemann and Stulz (Moeller, Schlingemann and Stulz, 2004). As maximizing the investment is not a logical explanation of a negative influence of Tobin's q ratio, the explanation must be that the bidder companies suffer from overvaluation. All other control variables do not yield significantly different results from zero for the total sample, and therefore the null-hypothesis of a zero average mean cannot be rejected in these cases. This leads to the conclusion that these control factors do not have a significant influence on the CAR.

The fact that the control variable 'Private' is not significantly different from zero could point in the direction that no advantages of a higher monitoring level can be achieved. This could be for example because the monitoring levels are already at a high level through the central bank structure of Japan and thus the firm value cannot be further increased by higher monitoring levels. All control variables for the subgroup 'type of acquisition', namely 100% acquisition, majority acquisition and minority acquisition, are highly insignificant, which implies that no specific subgroup has an influence on the CAR. Moreover, it is not the case that for example the subgroup 100% acquisition has more influence on the CAR, simply because there is 'more' control on the target through a higher degree of ownership. This is in accordance with the expectation, because as described previously, the condition is control and more control than control cannot be achieved.

Table 4.5: Regression results of the control variables

Variable	Expected Sign	Estimated value (p-value) Total (1)	Total (2)	Total (3)	Total (4)	Domestic (5)	Foreign (6)
Intercept	Na	0.065875 (0.2976)	0.046269 (0.4595)	0.053627 (0.4069)	0.74126 (0.3393)	0.074895 (0.3194)	0.036236 (0.8049)
lnSize	-	-0.004373 (0.4038)	-0.003951 (0.4434)	-0.004622 (0.3679)	-0.004779 (0.4139)	-0.004791 (0.4917)	-0.000909 (0.9318)
Leverage	-	0.000587 (0.4163)	0.000590 (0.4141)	0.000612 (0.3979)	0.000620 (0.4128)	0.000362 (0.7153)	0.000868 (0.3454)
Tobin's q ratio	+	-0.009427 (0.0000)*	-0.009466 (0.0000)*	-0.009197 (0.0000)*	-0.009370 (0.0000)*	-0.009566 (0.0000)*	-0.026071 (0.0039)*
Total Assets 1Yr Growth	+	-0.000167 (0.5329)	-0.000172 (0.5190)	-0.000183 (0.4898)	0.000169 (0.5216)	-0.000495 (0.0000)*	0.001720 (0.0009)*
Dividend per share 1Yr Growth	+	-0.000167 (0.2418)	-0.000166 (0.2399)	-0.000166 (0.2438)	-0.000166 (0.2410)	3.61E-07 (0.9986)	-0.00908 (0.0001)*
Private	+		0.017588 (0.3764)				
100% Acquisition	+/-			0.003020 (0.9291)			
Majority Acquisition	+/-			0.022551 (0.4574)			
Domestic	+				-0.006345 (0.7899)		
n		317	317	317	317	207	110
R^2		0.091778	0.093296	0.095018	0.092060	0.168945	0.136119
Adj-R^2		0.075265	0.073441	0.071813	0.072179	0.144645	0.092043

From model five and six of table 4.5 it becomes clear that these conclusions alter when the sample is split in the subgroups of 'Domestic' versus 'Foreign' acquisitions. The control variable Tobin's q ratio, also the control variable for growth, is significantly different from zero in both subgroups. The control variable dividend per share 1 year growth yields a result that is significantly different from zero for the subgroup 'Foreign'. This implies that in these cases the null-hypothesis of a zero average mean has to be rejected. It should be noted that the control variable for growth has a contradicting influence on the CAR if you compare both subgroups, i.e. for the 'Domestic' subgroup, growth has a negative influence on the CAR and for the subgroup 'Foreign' it has a positive influence. However, the positive or the negative influence of the control variable growth is fairly limited because the 'Domestic' or 'Foreign' control factor on the CAR has respectively an influence of -0.000495 and 0.001720, despite the fact that these values are highly significant. The influence of the control variable Dividend per share 1 year growth is not as was expected. One would expect that if a company increases its dividend payout it is committed to a sustained higher dividend in the future and therefore communicates positive information in accordance of the agency-principal theorem and the fact that information asymmetry exists between company managers and the market (Jensen, 1986). The data, however, points in the direction that an increase of dividend is seen as a negative action of the company for which is no clear theoretical explanation. Still a possible explanation could be that the markets views the action of an increased dividend as unsustainable or as overconfidence on the managers part. In addition to the fact that model five and six yield more control factors that are significant compared to the other models, as can be seen in model four, the control factor domestic is not

significant. This implicates that the fact that a bidder pursues a domestic or a foreign target is of no influence on the three day CAR. Therefore the results of model five and six should be perceived as of minor importance.

Regarding the 'goodness of fit' of the models it can be said that the R square increases as the models include more variables, but the adjusted R square decreases. This is in line with the understanding that when more variables are added to a model that do not add information to it - as is shown by the P-value of the added control variables - the adjusted R square decreased. It is interesting to observe that the level of the adjusted R square is higher than for example the models of the articles of Beckman and Higgins or Moeller, Schlingemann and Stulz (Higgins and Beckman, 2006, Moeller, Schlingemann and Stulz, 2004). However, these results should not be compared on a one to one basis because of differences in sample build up and methodology.

Furthermore, it should be noted that the adjusted R square of the subgroup 'Domestic' is roughly twice the level of the groups 'Total' and 'Foreign' at the level 0.14 compared to approximately 0.07 and 0.08 respectively. This implies that the models for the group 'Domestic' have a higher explanation power compared to the groups 'Total' and 'Foreign'.

If the same models are performed for the 41 day robustness event period, instead of the 3 day event period, the results of the control variables change. In the case of the 41 CAR none of the control variables remain significantly different from zero, except Tobin's q ratio of model 3 for the total group, but the respective direction, positive or negative, for all the control variables stays the same. Nevertheless, as already noted, they are insignificant and therefore the null-hypothesis of a zero average mean cannot be rejected in these cases.

On the basis of the regression results for the 3 day event period and the 41 robustness event period it can be stated that it appears that the results for the control factors size, leverage, private versus public target and the subgroups 100% acquisitions, majority acquisition and minority acquisition are robust. Regarding the other control factors it can be stated that the direction of the coefficients of the different control factors is robust as the direction of the control variable stays the same for the three day event period and the 41 day robustness event period. Additionally, it can be contended that the results for the control variable Tobin's q ratio are robust, which implicates that the conclusion that the null-hypothesis of a zero average mean has to be rejected, is sustainable.

4.3 Discussion

In the previous two sections the results of this thesis were presented and analyzed, but what do these results imply and what light do they shed on the theory as presented in chapter 2? Plus: which questions remain unanswered and open for debate and/or lead to new questions that can

be raised as a result of this research and could be the center of attention in future research? In this section these questions are the leading focus point.

The first striking result is the number of acquisitions and more precise, the increase in the number of acquisitions from the year 2006 on. The sample from the year 2000 until the year 2007 contains 17% of the observations and the years 2007 and 2008, of which in addition only a part of the year 2008 is included in the sample, contains 83% of the observations, see also figure 3.1 and 3.2. An explanation could be to expect a sudden exogenous factor that came into play in late 2006 or early 2007, which has made the market much more favorable for acquisitions. One of the events that qualifies for an explanation are the changes in regulations that were implemented in 2007 (Masujima, 2008); as is described in chapter 2, section 3 and in appendix 4. This fact could be seen as proof that regulatory changes or any other major shock that changes the market, can have an stimulating (or restraining) effect on the number of acquisitions. However, when controlled for the total sample, pre and post 2006, the direction of CAR does not change and the CAR remains insignificant. The fact that there is a great increase in the amount of acquisitions makes it interesting to re-run the research of this thesis in the (near) future, with an expected even larger sample in which one would be able to control for more variables at the same time.

The results for the different, individual years, as shown in table 4.3, do differ. Though, the fact that for one year, year 2004, no significant results could be found and a negative coefficient for the year 2000 is seen, should be reviewed with caution because of the low number of observations in the early years of the sample, as table 3.1 shows. Therefore it is not expected that these results have great enough influence to alter the results of the sample over the full event period. The trend of the results is a significant positive influence of the dummies of the years on the CAR. This leads to a consistent conclusion for all years that the factor time and the individual years have a constant influence on the CAR and that the factor time is not of a special influence that alters conclusions that are based on the three day CAR results.

The fact that the three day CAR is not significant and therefore the null-hypothesis of zero average return cannot be rejected, implicates that this most recent data and results are different than the results and conclusions of previous research done for the Japanese market. Also, the results are more in line with the results as presented in chapter 2, section 2. As is described in chapter 2, section 4, all articles included in that section conclude that there are significantly positive returns expected for the research done for the nineties, in which there was an economical crisis and economical growth slowed down. In the period following the nineties the economical growth remained low and the banking sector was not able to retrieve its full, pre-nineties level, which could be an explanation for the fact no significant results were retrieved. However, the results of the late nineties of Beckman and Higgins show significantly positive returns, but only for the group ‘Domestic’. A further difference between this thesis and previous research is the fact that not all the researchers make a differentiation between a ‘Domestic’,

'Foreign' and a 'Total' subgroup for their research. This still leaves the difference between the results of the group 'Total' to be explained. It could be argued, because of the insignificant results of this thesis, that the explanation must be that the market has become more efficient after the regulation changes and that the inefficiencies that were present in the market are gone now. Nevertheless, this does not explain the fact that the 41 day robustness event period yields significant positive CAR results for the groups 'Total' and 'Foreign', which is more in line with the results of previous research. This fact points out that it could be interesting for future research to perform a research of the relative efficiency of the Japanese stock market compared to for example the efficiency of the stock market in the United States. Moreover, it could be interesting to perform a research over a longer time period in which the distinction between foreign and domestic returns is made. In addition the longer time period will yield more data which may result in diminishing the influence of for example including a few years of bad economic performance.

What do the results say about the different theories as they have been presented in chapter 2? The 3 day CAR and the 41 day CAR in itself do not say a lot about the different economical motives and/or arguments. For the efficiency theory for example it could be argued that without significant positive abnormal returns no further research has to be done, but this is shortsighted. It could be the case that the market is misjudging the value of an acquisition, because of a lack of information. In this situation the valuation theory could be of influence and could possibly explain the results. The review of the results therefore should focus on the complete picture which includes, among other things, the CAR and the control factors. In the next part of this section it is discussed what the results do or do not say about the motives to pursue an acquisition because, even if it is not the main focus of this thesis, it is interesting to know what the results say about the theory.

An explanation for the significant positive abnormal returns of the subgroup 'Foreign' regarding the 41 day event period could be direct entry versus the takeover argument. As explained previously in chapter 2, the direct entry versus a takeover decision depends mainly on the costs of entry versus the acquisition costs. The fact is that entry costs can be avoided by an acquisition of an existing market party in the target country, which possibly enables the foreign bidder to bid a premium for the target. As long as the target price, including the premium, is lower than the costs of direct entry, the foreign bidder is better off through an acquisition. The fact that the subgroup 'Foreign' has a positive abnormal return could indicate that the market perceives the acquisition as a cost saving strategy compared to direct entry and thus 'reward' the bidding company with a higher stock price. However, this reasoning passes by the point of whether a company should pursue a foreign presence in the first place. In the case that the shareholder perceives the foreign venture as a negative value creating strategy, the devaluation of the bidders stock should compensate the positive effect of more efficient takeovers compared to the direct entry. This is because in this case this is the least unfavorable strategy. The other way around could also be argued. The foreign venture could be seen as a positive NPV strategy, a value creating process for

the bidding company, but the positive effect is diminished by an expensive acquisition compared to possibly a cheaper direct entry strategy. To compare, foreign acquisitions done by United States companies yield no gains for the bidder's shareholders. Nevertheless, positive gains are observed when the investment is done in less developed countries. The argumentation is that the increase of foreign investments increases the possibilities of a growing company to 'inherent systemic advantages' (Doukas, 1994). Future research on this point should therefore focus on the reason why and in which markets the Japanese companies pursue a foreign presence. With the knowledge of this moment on the other hand, the results are interpreted as a positive signal for takeovers versus a costly direct entry. This is a result of the fact that with the knowledge of ridged domestic structures, the large keiretsu structures, it could possibly be easier for Japanese companies to pursue foreign investments than invest in a ridged and relatively poor performing domestic market; even in combination with more relaxed regulations and better accounting standards.

The efficiency theory is based on the synergy argument. Because all three day CAR results are not significantly different from zero, it could be argued that the market estimates that no synergy advantages can be retrieved from the deals. In the case when synergy would have been present a positive CAR should be expected from the total deal and the target as well as the bidder would want a part of these returns. It is not in the interest of the bidder to initialize an acquisition based on the synergy argument and consequently 'give' all extra return away to the target. One should therefore expect positive abnormal returns for the bidder in the cases when the efficiency theory applies, which is not the case. Factors that would yield extra information are the combined return and also whether the acquisition is within the same industry. These factors are not available due a lack of target data, however based on the information that is present - among other things the three day CAR results - it is not likely that the efficiency theory is applicable in this case. This is a different story if conclusions are drawn from the 41 day CAR results. The group 'Total' and subgroup 'Foreign' yield significant positive abnormal returns and because of this it could be stated that the efficiency theory could play a role in these positive returns. Yet, more research should be done regarding, among other things, combined returns and industry relatedness between the target and bidder.

In chapter 2 it is already mentioned that it is almost impossible to prove, or for that matter, disprove the empire-building theory, because of lack of evidence. In addition, an acquisition based on the empire-building theory can easily be sold to shareholders on basis of other arguments than the empire-building theory. This also applies for the sample of this research, which leads to the conclusion that no sensible statements regarding this theory and this thesis can (and should) be made. These arguments and reasoning also apply for the raider theory.

The monopoly theory could be a driving argument behind the foreign expansion of the Japanese companies. Yet, as the specific motivation of this thesis is not to research why an acquisition is

pursued, the results do not yield evidence for this theory. Nevertheless the results do not contradict it either and therefore cannot be disproven. In future research with more data the factor competition can possibly be taken into account and this may shed some light on whether the monopoly theory applies.

The valuation theory does not seem a very likely argument for the results as they are retrieved for this thesis. The valuation theory is based on the fact of information asymmetry and therefore also on information advantages. If domestic acquisitions had yielded (a) more positive result(s) compared to the 'Foreign' subgroup, it would be more likely that the valuation theory, or more precise information advantages, are playing a role. This is because it is expected that Japanese companies have a better 'feel' for the local market compared to foreign markets and therefore have better information about the domestic markets than a 'new' foreign market. This is not the case, in the primary three day CAR research no abnormal return where observed, and in the 41 day robustness research foreign acquisitions outperformed domestic, which is not in line with the viewpoint that Japanese companies have more information about the Japanese market then foreign. Still, there is the possibility that there is a case specific information advantage for individual companies, but the data is not able to show this, because of the specific direction of the research. This could nonetheless be a good starting point for future research, in which among other things also industry relatedness should be a part of.

The hubris theory is based on overestimating of the bidding managers. The Tobin's q ratio of the target and the bidding price, including the premium should be present to give judgment whether the hubris theory is applicable. In this thesis this information is not available, only the Tobin's q ratio of the bidder is present, which does not yield a good indication in the case of 'proving' the existence of the hubris theory. The fact that the CAR of the three day event period are all insignificant is not in conflict with the hubris theory, as it is as likely to over as under estimate the targets value for the bidder. It should therefore be very interesting when target data becomes available, perhaps in the future, to reassess this theory in the context of this sample in order to possibly give a concluding remark regarding this theory.

These last paragraphs of the discussion section have a common conclusion and that is that it would be interesting to perform future research directed at finding out which motives are behind the initialization of the Japanese driven acquisitions. This is because the question which and, for that matter, if any, of the mentioned theories apply to the Japanese market, remains largely open. It should be noted that, as already mentioned in chapter 2, section 2.1.2., it will be hard to find evidence for certain theories, like the empire-building theory or the monopoly theory.

4.4 Limitations

The purpose of this section is to be self-critical. In this research and in the literature in general assumptions are made, decisions are made based on literature or own results and calculations are performed. However, with the same theoretical foundation different studies can yield deviating results and because of this it is good to be self-critical and evaluate why particular differences in results may occur.

First of all, there is the issue of the correct data. There is no complete assurance that the dataset is 100% complete over the specified period, however at the same time there is no indication that the sample has a selection bias in any way. The source, marketlineinfo.com, does not yield any information that indicates a specific selection procedure of the listing of acquisition any other than the aim to be exhaustive. For that reason it could be assumed that the data is representative for the period for which the research is performed, despite the fact that there was no possibility to cross reverence the data with another databank or source, due to among other things, language limitations. It should nevertheless not be forgotten that the possibility exists that important data or data groups, for example a sector or industry, is missing in the sample of this thesis, despite the fact that there are no indications in that direction. Moreover, the sample is relatively large compared to the samples in the literature that focus on the subject of abnormal returns in the Japanese market. Then again, despite the relative size to previous research for the Japanese acquisition market, the sample is smaller compared to recent international research focusing on abnormal returns. Although, it is a fact that a larger sample is not possible at the moment. For that reason it should be interesting to perform this research again in the future when more data is available, which, as is expected from the trend that figure 3.1 and figure 3.2 shows, will become available because of the apparent increased activity in Japanese acquisition market.

In addition to the completeness and size of the sample issues there is the issue of survivor bias. The survivor bias issue could be present when the sample solely contains bidders that did not go bankrupt or were not delisted. Despite the fact that no control was performed for the survivor bias, it is expected that it is of minor importance because poor performing companies are not expected to initiate an acquisition; they do not have the means. Moreover Kang, Shivdasani and Yamada, who performed a small control for the survivor bias problem, returned results that indicate that it is of no influence in their research regarding the Japanese acquisitions market (Kang, Shivdasani and Yamada, 2000). Furthermore, there are no indications that marketlineinfo.com removed companies from the database as a result of later bankruptcy or because the company was delisted in a later stage.

As has become clear in previous sections of this thesis, it is argued that a three day CAR period should capture the announcement effect. Yet there is the possibility of misspecification of the announcement date, because of lack of information, input errors or other reasons. Moreover,

based on the results of Jensen and Ruback, see table 2.2 or appendix 3, it appears that about half of the abnormal returns are observed before the announcement date, because the weighted average returns are 15,9% for the measured one month around the announcement day, compared to the 7,72% for the two day return period (Jensen and Ruback, 1983). The fact that there is a discrepancy between the two-day and the one month period could indicate that a large portion of the abnormal returns was not captured in the research done for this thesis, because of the three day measurement period. For the sake of robustness a second, longer event period of 41 days was performed and the tests and models are re-run for this event period. Because the results in large part do not alter on this point it can be stated that the selected three day event period results are robust. The possibility that higher total CAR results could have be found can nevertheless not be excluded, but with longer event periods come other problems such as a decrease of the sample size; because of lack of stock data for a longer period. It also becomes harder to control for other influences that may have had an influence on the CAR because of the fact that the longer the event period, the higher the chance that other (exogenous) influences than solely the acquisition transaction have taken place. Additionally, there is the fact that the results for the three day event period are insignificant.

Besides the selection of the event period there is the moment in time when the acquisitions are announced. As can be observed from the results, see figure 4.1, it becomes clear that the sample is skewed through time in favor of the end of the sample (the later it becomes in time, the more events there are), which raises the question whether this could have influenced the results. Previous literature indicates that the fact that the sample is skewed will not influence the results regarding abnormal returns as Brown and Warner provide evidence in their 1985 paper that clustering of data does not alter the results (Brown and Warner, 1985). Therefore, the results regarding this issue should be robust.

In this thesis it is assumed that the market prices of stock reflect the current situation of the company and incorporate information quickly and completely when (new) information becomes available. This is conform the efficient market hypothesis. However, as is mentioned regarding the valuation theory, there could be an information asymmetry or misjudgment on the investors side. When these factors are present, this can alter stock price and therefore conclusions based on these results. For example, the Tobin's q ratio would be altered by a different stock price, because the market value of the firm is altered. There are nevertheless no indications that the Japanese market suffers from misjudgment on a large scale or in the more broader sense of a breakdown of the efficient market hypothesis compared to other markets. Yet, one should be aware of possible mispricing in the market and therefore its possible influence on the results of this thesis.

Regarding the control factors different questions can be raised. Not all the control factors mentioned in the literature could be tested in this thesis because of the lack of data in different cases and time constrains. Because it is impossible to control for all the control factors as they

were mentioned in the literature, it could be the case that an important control factor was not included in this thesis and therefore the results are different from what they could or should have been. Control factors that were not included that possibly are of great importance are competition and interlinked with this, bargaining power, the method of payment, main bank presence and government influences. As previous research shows, these control factors have had an influence on abnormal returns in the past, or it can be argued on economical reasons that they could have had an effect, and therefore should have been controlled. For this reason, it should be pursued in future research regarding this topic to control for these influences when the data becomes available. It can be of special interest what, if any, influence the main bank structure still has on the present day Japanese company, because the main bank structure, combined with the keiretsu structure, is a distinct feature of the Japanese market and therefore could yield interesting results. The selection of the control factors and additional research from this point of view should therefore be an important focal point in future research.

This thesis has a focus on the bidder abnormal returns when an acquisition is announced and as a result excludes the possibility to have a closer look at target abnormal returns and combined abnormal returns. In addition, a large portion of target companies are private and therefore no public data is available. Interesting points of research would be industry relativeness between the target and the bidder. Furthermore, relative size between the target and bidder is, among other things, for the reason of the lack of target data not possible. In future research an important focus could be on the relation between the target and bidder, but a condition for this is that data is retrieved from private targets or that a much larger sample size becomes available. Besides the issue of a lack of target data, there is the issue of the lack of the group of foreign companies that are engaged in acquiring Japanese companies and - as a consequence - a comparison of these results to the results of domestic Japanese acquisitions. With future research that focuses on the difference between Japanese domestic acquisitions compared to foreign acquirers that acquire domestic Japanese targets, possibly conclusions can be drawn regarding the differences in regulation between these two bidder groups. This kind of research could shed light on issues of market efficiencies because one group is more heavily regulated than the other and therefore has more limitations.

In summary, the largest limitations of this thesis are the lack of data of the target companies, the lack of data for control factors such as competition, method of payment and government influence and possibly the overall sample size, if one takes the sample size of chapter 2, section 2 as a peer group.

5. Conclusion

Given the fact that only limited research has been done previously, despite the fact that Japan is the second largest economy of the world, this thesis sheds light on the recent abnormal returns of acquisition activity by Japanese bidders and effects of regulation changes in the context of promoting merger and acquisition activity in Japan. This thesis focuses on measuring the three day CAR results of the acquisition by the means of an event study. In addition, the effect of regulation changes in 2007 on the amount of acquisitions is reviewed.

The conclusion can be drawn that the regulation changes of 2007 regarding mergers and acquisitions are effective regarding the promotion of acquisitions, based on the increased number of mergers and acquisitions in Japan, both domestically and foreign. A clear increase in the amount of acquisitions is observed if the pre and post 2007 legislation change periods are compared. The pre 2007 period contains a total of 55 acquisitions and the post 2007 period (this also includes the year 2007) contains 262 acquisitions, which is an increase of 376%. This is an impressive increase of the amount of acquisitions, certainly because the data of the year 2008 runs only until the first of August. The second question of this thesis, namely whether the 2007 legislation changes have increased the amount of acquisitions in the Japanese acquisition market, is thereby clearly answered positive.

The main question of this thesis is whether cumulative abnormal returns are present for Japanese bidders around the announcement date. The short answer is no, there are no significant CAR results. This short answer however does not fully appreciate and acknowledge the results as they were retrieved in the research of this thesis. Some future elaboration is therefore needed.

The CAR results for (sub)groups ‘Total’, ‘Domestic’ and ‘Foreign’ all show a positive trend. Despite this, no cumulative abnormal returns are present, because the results are highly insignificant. The results for domestic acquisition are robust as the 41 day control test yields similar results. For the total sample and the foreign acquisitions it is a different story. The results of 41 day test period yield positive ánd significantly different from zero results for the group foreign acquisitions and the total sample. A possible explanation for the difference in results between the three day CAR period and 41 day period could be that there is a lot of information leakage in the case of foreign acquisitions, even longer than one day before the announcement day. Another explanation could be the slow incorporation of the information of the announcement in the stock prices which causes it to take longer than the +1 day to incorporate the information in the share prices and as a result, the abnormal return effect is not incorporated in the three day CAR results. The insignificant positive CAR results of the three day event period are in line and in conflict with previous research. The positive trend of the abnormal returns are in line with the positive Higgins and Beckman’s domestic results of the late nineties and most of other previous research done for the Japanese market.

However, the results of this thesis for the three day CAR results are not significantly different from zero for all groups and this is the conflict with previous research. Furthermore, the positive, although insignificant, 3 day CAR results of foreign acquisitions are in conflict with the significant negative results of Higgins and Beckman for this subgroup. A possible explanation could be that the changed regulation made Japanese companies more efficient and therefore better able to operate in the international economy. The implication of the insignificant CAR results is that, despite the fact that the amount of acquisition transactions increased, the transactions do not yield a value increase for the bidder shareholders. Another explanation for the insignificant results of this thesis could be that the Japanese market is still performing suboptimal compared to the pre nineties period.

The control variables size, leverage, growth, confidence, private versus public target and type of acquisition (100% acquisition, majority or minority acquisition) yield insignificant results for the all the test groups, except for the control variable Tobin's q ratio. Tobin's q ratio has a significantly different from zero negative influence of approximately -1% for the total sample. This implicates that value maximizing of the investment for the company has a negative influence on the abnormal returns, which is against the expectations. The results for Tobin's q ratio are robust over all the models and for both event periods, the three day base case event period and the 41 day robustness event day period.

Limitations

The results of this thesis are however limited by several aspects. The most important ones are: the high level of private targets (80%+) and the subsequent lack of public target data This obstructs research to target and combined returns. As a result, it is not possible to research industry relativeness. In addition it was not possible to research influences like competition, bargaining power and method of payment. These are factors that possibly could have influenced the results and as a consequence make the results less reliable than they could have been when a check for these factors could have been performed.

Future research

Generally speaking, more research regarding the merger and acquisition activity in the second largest economy of the world, Japan, is warranted. The increased merger and acquisition activity that is established in this research is promising for future research and data availability regarding mergers and acquisitions. In the past, merger and acquisitions activity was not prominent in Japan and therefore data availability remained low. With an increased level of merger and acquisitions, more data will be expected in the (near) future. This will enable more and more accurate research and the ability to control for more variables at the same time.

On the basis of the results of this thesis it would be interesting in future research to focus on (relative) market efficiency. The Japanese market traditionally has known more limitations and

regulations than western markets, as described in this thesis. Therefore it could be expected that Japanese market operated or still operates less efficient than its western peer groups. The fact that the CAR results are insignificant could point to an increased efficiency in the Japanese market In future research. A comparison could be made between the Japanese market and for example the United States market on how quick the announcement effect of an acquisition is incorporated in stock data. Furthermore, a point of research could be how long before and after the announcement day an influence of the announcement can be observed and in what magnitude. This may help to explain the difference in the results that excists between the three day CAR and the 41 day CAR results. In other words: future research could focus on relative information leakage and market efficiency.

Future research could focus on the reason why Tobin's q ratio has a negative influence on the CAR. In addition, more research is warranted regarding several other control factors of abnormal returns that were not incorporate in this research, as data availability was a limiting factor on the side of some control factors in this thesis. Interesting would be to research whether competition, method of payment, government influence and main bank influence is a factor of influence and what factor of influence (positive or negative) the control variables are regarding to abnormal returns. Besides this, an additional focus could be to retrieve target data. With target data available the target and combined returns could be measured. In addition, industry-relativeness could then be researched and the issue regarding diversification against integration motives could be clarified. Possibly a distinct difference, or on the contrary an agreement, of motives between foreign and domestic acquisitions can determined. Moreover, a research should be performed whether there are differences in abnormal returns between different kind of acquisitions, as the literature regarding research in the United States for example tends to yield results that give different results regarding tender offers compared to other forms of acquisitions. Furthermore, it should be interesting to research how foreign acquirers perform in the domestic Japanese market compared to domestic Japanese acquirers as there are regulatory differences between these two groups.

A further possible interesting focal point for future research will be to perform the research not - as has been done in this thesis - for Japan, but for South Korea. Historically, South Korea knows similar corporate structures like the 'Keiretsu', the 'Chaebol'. It would be interesting to know whether results from South Korea are deviating from Japan because of other influences or that they yield similar results. In regard to the Chaebol research, it may be of extra importance to include the control factor of main bank influence.

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Appendices

Appendix 1: GDP annual rate of growth (World Bank estimates)

Year	Japan	Euro Area (1999)	United Kingdom	United States	World
1961	12.00	5.29	2.60	2.70	4.13
1962	8.90	4.69	1.30	5.20	5.36
1963	8.50	4.53	4.00	4.10	4.60
1964	11.70	5.38	5.00	5.50	5.81
1965	5.80	4.01	2.80	5.60	5.12
1966	10.60	3.50	2.00	6.00	4.48
1967	11.10	4.01	2.30	2.70	4.60
1968	12.90	5.10	4.00	4.20	5.71
1969	12.50	6.26	2.00	2.70	6.35
1970	10.70	5.04	2.40	0.20	6.58
1971	4.70	3.62	2.00	3.50	5.29
1972	8.40	5.81	3.60	5.60	5.37
1973	8.00	6.55	7.10	5.90	5.08
1974	-1.20	3.61	-1.40	-0.50	5.97
1975	3.10	-0.72	-0.60	-0.20	3.25
1976	4.00	4.10	2.70	5.40	6.30
1977	4.40	3.25	2.50	4.70	4.59
1978	5.30	2.99	3.30	5.60	4.84
1979	5.50	3.74	2.70	3.20	4.30
1980	2.80	2.76	-2.10	-0.20	3.23
1981	2.90	0.70	-1.40	2.50	2.84
1982	2.80	1.25	1.90	-2.00	1.81
1983	1.60	1.58	3.50	4.50	1.81
1984	3.10	2.44	2.60	7.20	3.27
1985	5.10	2.57	3.60	4.10	2.37
1986	3.00	3.10	4.00	3.40	3.35
1987	3.80	3.42	4.50	3.30	3.67
1988	6.80	4.98	5.00	4.10	4.57
1989	5.30	4.96	2.10	3.50	3.00
1990	5.20	3.95	0.70	1.90	2.39
1991	3.40	2.43	-1.40	-0.20	1.37
1992	1.00	1.23	0.30	3.30	0.31
1993	0.30	-0.01	2.40	2.70	1.08
1994	1.10	2.95	4.40	4.10	1.92
1995	1.90	3.25	2.90	2.50	3.65
1996	2.60	2.65	2.70	3.80	4.39
1997	1.40	4.25	3.20	4.50	4.91
1998	-1.80	4.18	3.20	4.20	3.49
1999	-0.20	4.43	3.00	4.50	3.39
2000	2.90	4.83	4.00	3.70	3.95
2001	0.40	2.13	2.20	0.80	3.53
2002	0.10	1.76	2.00	1.60	3.11
2003	1.80	1.25	2.50	2.70	3.78
2004	2.30	2.58	3.10	4.20	5.78
2005	2.60	1.98	1.80	3.20	5.01
2006	2.20	3.53	2.80	3.30	5.54
Un weighted Average	4.59	3.39	2.47	3.33	4.03

Source: UNdata - A world of information (2008a)

Appendix 2: GDP per capita (World Bank estimates)

Year	Japan	Percentage growth
2006	$32.385,00	5.09%
2005	$30.736,00	5.38%
2004	$29.083,00	4.72%
2003	$27.710,00	3.50%
2002	$26.741,00	1.62%
2001	$26.307,00	2.51%
2000	$25.646,00	4.76%
1999	$24.425,00	1.02%
1998	$24.176,00	-0.92%
1997	$24.399,00	2.73%
1996	$23.732,00	4.08%
1995	$22.763,00	3.46%
1994	$21.976,00	2.80%
1993	$21.361,00	2.25%
1992	$20.881,00	2.95%
1991	$20.265,00	6.22%
1990	$19.005,00	8.17%
1989	$17.452,00	8.13%
1988	$16.034,00	9.06%
1987	$14.582,00	5.78%
1986	$13.739,00	4.41%
1985	$13.133,00	7.10%
1984	$12.200,00	5.94%
1983	$11.475,00	4.68%
1982	$10.938,00	7.65%
1981	$10.101,00	10.53%
1980	$9.037,00	10.14%
1979	$8.121,00	11.72%
1978	$7.169,00	10.45%
1977	$6.420,00	9.05%
1976	$5.839,00	8.37%
1975	$5.350,00	Base year

Source: UNdata - A world of information (2008b)

Appendix 3: Table 3 from Jensen and Ruback, 1983

Table 3 Abnormal returns associated with mergers and tender offers; sample size and *t*-statistic[a] are given in parenthesis.

Study	Sample period	Event period	Bidding Firms		Target Firms	
			Successful (%)	Unsuccessful (%)	Successful (%)	Unsuccessful (%)
Panel A.	*Tender offers:*	*Announcement effects*				
Dodd and Ruback (1977)	1958-1978	Offer announcement month	+2.83 (124, 2.16)	+0.58 (48, 1.19)	+20.58 (133, 25.81)	+18.96 (36, 12.41)
		The month of and month following offer announcement	+3.12 (124, 2.24)	-1.71 (48, -0.76)	+21.15 (133, 15.75)	+16.31 (36, 6.32)
Kummer and Hoffmeister (1978)	1956-1974	Offer announcement month	+5.20 (17, 1.96)	n.a.	+16.85 (50, 10.88)	+21.09 (38, 11.87)
Bradley[b] (1980)	1962-1977	Twenty days before through twenty days after the offer announcement	+4.36 (88, 2.67)	-2.96 (46, -1.31)	+32.18 (161, 26.68)	+47.26 (97, 30.42)
Jarrell and Bradley (1980)	1962-1977	Forty days before through twenty days after the offer announcement	+6.66 (88, 335)	n.a.	+ 34.06[c] (147, 25.48)	n.a
Bradley, Desai and Kim (1983)	1963-1980	Ten days before through ten days after the offer announcement	n.a.	-0.27 (94, 0.24)	n.a.	+ 35.55[d] (112, 36.61)
Bradley, Desai and Kim (1982)	1962-1980	Ten days before through ten days after the offer announcement	+ 2.35 (161, 3.02)	n.a.	+ 31.80 (162, 36.52)	n.a.
Ruback (1983a)	1962-1981	Five days before through the offer announcement	n.a.	-0.38 (48, -0.63)	n.a.	n.a.
Weighted average abnormal return[e, h]			+ 3.81 (478, n.a.)	-1.11 (236, n.a.)	+29.09 (653, n.a.)	+ 35.17 (283, n.a.)

Table 3 (continued)

Study	Sample period	Event period	Bidding Firms: Successful (%)	Bidding Firms: Unsuccessful (%)	Target Firms: Successful (%)	Target Firms: Unsuccessful (%)
Panel B.1.	*Mergers:*	*Two-day announcement effects*				
Dodd (1980)	1970-1977	The day before and the day of the offer announcement	-1.09 (60, -2.98)	-1.24 (66, -22.63)	+13.41 (71, 23.80)	+12.73 (80, 19.08)
Asquith (1983)	1962-1976	The day before and the day of the offer announcement	+0.20 (196, 0.78)	+0.50 (89, 1.92)	+6.20 (211, 23.07)	+7.00 (91, 12.83)
Eckbo (1983)	1963-1978	The day before through the day after the offer announcement	-0.07[f] (102, -0.12)	+1.20[g] (57, 2.98)	+6.24[f] (57, 9.97)	+10.20[g] (29, 15.22)
Weighted average abnormal return[h]			-0.05 (358, n.a.)	-0.15 (212, n.a.)	+7.72 (339, n.a.)	+9.76 (200, n.a.)

Study	Sample period	Event period	Bidding Firms: Successful (%)	Bidding Firms: Unsuccessful (%)	Target Firms: Successful (%)	Target Firms: Unsuccessful (%)
Panel B.2.	*Mergers:*	*One-month announcement effects*				
Dodd (1980)	1970-1977	Twenty days before through the first public announcement	+0.80 (60, 0.67)	+3.13 (66, 2.05)	+21.78 (71, 11.93)	+22.45 (80, 10.38)
Asquith (1983)	1962-1976	Nineteen days before through the first public announcement day	+0.20 (196, 0.25)	+1.20 (87. 1.49)	+13.30 (211, 15.65)	+11.70 (91, 6.71)
Eckbo (1983)	1963-1978	Twenty days before through ten days after the public announcement	+1.58, (102, 1.48)	+ 4.8-1,# (57, 3.43)	+ 14.08' (57, 6.97)	+25.03 (29, 12.61)
Asquith,[i] Bruner, and Mullins (1983)	1963-1978	Twenty days before the announcement day through the announcement day	+ 3.48 (170. 5.30)	+0.70 (41,0.41)	+ 20.5 (35, 9.54)	+10.0 (19, 3.45)
Malatesta (1983)	1969-1974	Public announcement month	+0.90 (256, 1.53)	n.a.	+16.8 (83, 17.57)	n.a.
Weighted average abnormal return[h]			+1.37 (784, n.a.)	+2.45 (251, n.a.)	+ 15.90 (457, n.a.)	+17.24 (219, n.a.)

Table 3 (continued)

Study	Sample period	Event period	Bidding Firms		Target Firms	
			Successful (%)	Unsuccessful (%)	Successful (%)	Unsuccessful (%)
Panel B.3.	Mergers:	Total abnormal returns from offer announcement through outcome				
Dodd (1980)	1970-1977	Ten days before offer announcement through ten days after outcome date	-7.22 (60, -2.50)	-5.50 (66, -2.05)	+33.96 (71.7.66)	+ 3.68 (80, 0.96)
Asquith (1983)	1962-1976	The day before offer announcement through outcome date	-0.10 (196, - 0.05)	-5.90 (89, -3.15)	+ 15.50 (211, 6.01)	-7.50 (91, -1-54)
Weir[j] (1983)	1962-1979	Ten days before offer announcement through ten days after cancellation date	n.a.	+3.99 (16,0.89)	n.a.	-9.02 (17, -1.82)
Weighted average abnormal return[h]			-1.77 (256, n.a.)	-4.82 (171, n.a.)	+20.15 (282, n.a.)	-2.88 (188, n.a.)

[a] Not available = n.a.

The non-italicized *t*-statistics were obtained directly from the cited study or calculated using standard errors reported in the study. In the absence of this information, we have approximated the *t*-statistics. The italicized *t*-statistics in panel A are calculated as: $t = \overline{X}\sqrt{N/S}\sqrt{T}$, where $\overline{X}$ is the reported abnormal return, N is the number of observations in the sample, T is the number of days over which the abnormal returns are cumulated, and S is the per day per observation standard deviation. S = 2.39% and is calculated as the average of the implied per day observation standard deviation in all of the studies. The italicized *t*-statistics in panel B.3. were calculated as: $t = \overline{X}\sqrt{N/S}\sqrt{T}$ where T is the average number of days in the average cumulative return, and the standard deviation is from the original study.

[b] These data are plotted in Bradley (1980). Bradley provided the numerical values in private correspondence.

[c] The abnormal return for successful targets is measured over the period forty days before through rive days after the offer announcement.

[d] The abnormal return for unsuccessful targets in the announcement month.

[e] The weighted average excludes the announcement month results of Dodd and Ruback (1977) and includes their results for the month of and month following the announcement.

[f] Includes mergers which were not challenged by antitrust authorities.

[g] Sample consists of mergers that were challenged by antitrust authorities. Eckbo (1983) reports that most of these acquisitions were not completed.

[h] The abnormal returns are weighted by samples in calculating the weighted average. Overlapping sample problems are ignored.

[i] Asquith, Bruner and Mullins (1983) provided the data for successful and unsuccessful target firms in private correspondence.

[j] Sample includes only mergers that are cancelled after antitrust complaints under Section 7 of the Clayton Act.

Appendix 4: Financial (de)regulation changes

	Timeline	Financial (De)regulation
The 'big bang'' period	April 1996	Life and Casualty Insurers can compete in each other's business through subsidiaries
	June 1997	Stock options legalized
	July 1997	Listed single stock options introduced
	October 1997	Securities trust affiliates offer loan trust Banks securities affiliates can deal in convertible bond secondary market
	December 1997	Bank scan rent space to their investment trust affiliates which are allowed to sell their products at banks Securities companies can offer securities general accounts
	1997	Regional banks to offer trust products
	January 1998	Non-financial holding companies legalized
	April 1998	New Foreign Exchange Law introduced allowing companies and individuals to make foreign-exchange transactions without government authorization Freeing of stock transaction fees on large lot transactions above 50 million yen Financial holding companies introduced
	1998	Non-life insurance fees liberalized
	Fiscal 1998	Securities companies go from licensing to registration Banks allowed to sell investments trust directly Corporate investment trusts legalized Securities companies allowed to expand asset-management services
	October 1999	Securities companies trust affiliates allowed into pension trust market Bank securities subsidiaries allowed into the primary and secondary market for securities Total liberalization of stock transaction fees
	Fiscal 1999	Banks allowed to issue straight bonds
	Second half of fiscal 1999	Barriers keeping banks, trust banks, and securities companies from entering one another's market removed
	January 2000	Domestic non-life insurers allowed to enter securities, banking, and trust banking
	End of 2001	Banks and securities companies allowed to enter the insurance sector
The post 'big bang'' period	28 March 2007	The revised Merger Guidelines were introduced to ease regulation on M&A transactions and to keep in line with changing competition laws around the world. The (old) Mergers Guidelines focused on domestic business activity and to protect the domestic competition. The revised Mergers Guidelines focus more on the world as a whole.
	1 May 2007	The Company Law (came into effect which enabled companies to engage in triangular mergers involving Japanese companies
	30 September 2007	The Financial Instruments and Exchange Law (the FIEL) came into act which requires a private company that acquires a public company by way of statutory merger, stock swap and certain other methods specified in the rules to file a securities registration statement with the relevant authority
	2007	Tax reforms which include a tax deferral for shareholders of corporations involved in a triangular merger on the resulting capital gains and losses. The reform requires business relatedness between the Japanese target and the non-Japanese acquirer's wholly owned merger-subsidiary vehicle.

Source: Sibbitt (1998) and Masujima (2008)