Acquisitions for higher pay?

An Empirical Study on the Relationship between Executive Compensation and Acquisition Activities in the Netherlands.

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by

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Abstract

This research examines the relationship between acquisitions and executive compensation in the Netherlands. First, the research examines Dutch listed companies which executed an acquisition in the period 2000-2008. In order to examine the compensation change a benchmark of Dutch sector peers, who did not engage in an acquisition, is created. The results in executive compensation change are compared to one another.

Second, the factors that could influence executive compensation are examined in order to answer the research question. The research question is *Which factors influence executive compensation of acquiring firms within the Netherlands and in what way?*

The results of the study indicate that firm size, executive's age and compensation risk are indicators of compensation change after an acquisition. Also executive compensation after an acquisition increases slightly more relative to the sector benchmark.

Keywords: executive compensation, acquisition, Agency Theory, the Netherlands, deal size.

Preface

In the previous six years I attended the study Economics and business at the Erasmus School of Economics from the Erasmus University in Rotterdam. This thesis is the final assignment for completing the Master's program Accounting, Auditing, and Control. During the preparation of my Bachelor thesis, I already developed great interest in the subject of executive compensation. In my search for a suitable subject I encountered the study of Grinstein and Hribar (2004) on the incentives of executive compensation, especially in merger and acquisitions situations. From there my interest grew and the subject for this thesis was created.

Acknowledgements

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Thijs, my spirit, I thank him for his patience, liveliness, and ongoing questions about my thesis ("Are you going to graduate yet?"), feelings, and life.

Finally I want to look back on the past six years and thank all my friends and family who supported me in my process towards graduation. Again, without their support I would not be in this place right now.

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1   Introduction

1.1   Background

For decades executive compensation has been a topic of interest for the public at large. The media play an important role in the coverage of executive compensation.

"The compensation of AEX managers increased with 51% over the last two years." (RTL Z, 20-3-2006)

"Top managers should give even more openness in their compensation, states Commission Frijns." (RTL Z, 04-6-2008)

"Banker's Bonuses stay high, despite the banks big losses." (RTL Z, 19-09-2009)

With the rise of transparency regulations, companies give more and more insight in their executive compensation policy. This growing transparency has advantages and disadvantages for the company. Advantages are for example that the stakeholders and shareholders have more information and can make a better judgment about a company. This is an example of good corporate governance (Craighead, Magnun, & Thorne, 2004). More information can also comprehend disadvantages (Dalton & Dalton, 2008). For example if management receives a great bonus, although they didn't reach a certain target this can cause damage to the image of the company. Image damage can cause troubles for the value of the company. Another disadvantage is that other executives can see what their colleague executives are earning and this can cause the earnings to go up even further (Dalton & Dalton, 2008).

Not only media are interested in the executive pay policy of companies. A lot of researchers have investigated executive compensation. Swagerman and Terpstra (2007) also acknowledge in their paper that the levels of executive pay have increased significantly in the Netherlands. Examples of research executed regarding executive compensation are studies that examine whether compensation and firm performance are related to each other (Girma, Thompson, & Wright, 2007) and how executive compensation is build (Madura, Martin, & Jessell, 1996). Also several researches have been executed on the factors relating the change in executive compensation after an acquisition (Bliss & Rosen, 2001; Grinstein & Hribar, 2004).

According to Schleifer and Vischny (1988) the acquisition process is the process that is the most important way for firms to enter new lines of business. For the executives the acquisition can result in higher compensation, higher prestige and a more diversified firm to manage (Shleifer & Vishny, 1988). However researchers found that acquisitions do not improve operating results and share value (Ghosh, 2001; Loughran & Vijh, 1997).

In this thesis the focus will be on the factors that may be of influence on executive compensation after an acquisition. Also the reasons why executives engage in acquisitions will be discussed. In the next section I will elaborate further on the objective of my research and on the research questions.

1.2   Objective and research questions

1.2.1   Objective

The main objective of this research is to examine which factors that influence executive compensation also hold in a situation in which firms develop acquisition activities. The tendency of this understanding is to make a contribution to the existing acquisition literature as well as the existing compensation literature.

1.2.2   Research Questions

In my research I want to combine several factors that were examined by other researchers that had an impact on executive compensation after an acquisition. These researches were mainly executed in the US; therefore I want to investigate whether the factors they found also hold for Dutch companies. Therefore my research question is:

Which factors influence executive compensation of acquiring firms
within the Netherlands and in what way?

For answering this question I formulate several sub questions. These questions will be answered in the thesis. The sub questions are discussed below.

1.2.3   Sub Questions

- What are the determinants of executive pay?
- What is the existing body of work on executive pay for acquiring executives?
- Do acquisitions have any influence on executive compensation?
- Which known factors of influence on executive compensation also hold in an acquisition situation?

1.3   Relevancy

The research exercised in this thesis is relevant for various reasons. In this section these reasons will be discussed. Throughout the literature study it will become clear that most existing literature on executive compensation and acquisition activities were executed for United States firms. One exception is the research by Coakley and Ilipoulou (2006) on the difference between US and UK firm in acquisition situations. Coakley and Ilipoulou state that US bidding firms have a significant higher increase in executive compensation after an acquisition than UK bidding firms (Coakley & Iliopoulou, 2006). Also, US firms have more equity related compensation than other countries do (Murphy, 1998).

Examining the topic of executive compensation for acquiring firms from the Netherlands is therefore interesting because a comparison can be made with the results from the US studies reviewed in this thesis and the before mentioned UK study. It might be the case that not only the form of compensation, but also the size of the firms differ from the US samples.

Another reason why this study is relevant is because most researchers have investigated only a small amount of factors per study that might influence executive compensation after an acquisition (e.g.: (Grinstein & Hribar, 2004; Khorana & Zenner, 1998). In this thesis a broader look on the relationship between an acquisition and executive compensation will be taken.

Of particular interest in this study will be the outcomes. It gives an overview of the factors that are related to executive compensation and it may give an overview of why executives engage in an acquisition. With this knowledge shareholders and standard setters have better information on the objectives of the executives when engaging in an acquisition and with that information they can make better decisions on company value even in an acquisition situation.

The final reason this research will be relevant is because the topic of executive compensation in relation with executive compensation has not yet been explored in great depth in the Netherlands. As a result, this study can be used as a starting point for further or more elaborated research in the future.

1.4   Structure

The remainder of the thesis is structured as follows:

Chapter 2: The theoretical background is discussed. In this chapter the three broad topics of corporate governance, the agency theory and the managerial power approach are discussed.

Chapter 3: This chapter describes the different forms of executive compensation and the factors that influence executive compensation.

Chapter 4: The empirical literature of importance for this thesis will be discussed in this chapter

Chapter 5: The research design is described in this chapter.

Chapter 6: Chapter 6 summarizes the empirical results of the study. Also these results are discussed in an analysis.

Chapter 7: In this chapter the overall conclusion of the thesis is given.

2 Theoretical Background

2.1 Introduction

In the Netherlands during the VOC period in the 15th century the separation of ownership and control in companies came into being. With vessels the Dutch corporation VOC travelled to trade colonies like Indonesia. These Vessels had to be bought and maintained, moreover, the journeys were very expensive. The company needed capital to maintain these journeys. This is how the idea came into existence to attract capital from outsiders (Nijman, 1994).

In the beginning capital was provided for one ship. If the ship returned, the money was returned and the investor received a part of the profit made on the journey. If the vessel did not return the investor did not get his money back. Later on the investment was done on the whole company and the investors received a part of the profit every year, dividend (Nijman, 1994).

The owners of the company were the outsiders who provided the capital needed and the managers were the people who made the decisions about the company and who handled the daily operations (Nijman, 1994). Due to the fact that ownership and control became separated some problems emerges. The owners wanted a part of the profit of the company and the managers were looking for personal gain by enriching themselves with high salaries for example.

With the separation of ownership and control also the separation of preferences of owners and managers came. Other problems regarding separation of ownership and control are information asymmetry; the manager has more information than the owner, and difference in risk preference for example (Eisenhardt, 1989). The separation of ownership and control and its corresponding characteristics, like executive compensation, are at the basis of corporate governance and the agency problem. These two subjects are discussed in section 2.2 and 2.3 subsequently. Section 2.4 discusses two other theories of great importance for executive compensation. These theories are the managerial power approach and the optimal contracting approach.

2.2 Corporate Governance

2.2.1 Introduction

Executive compensation is part of corporate governance, because it is part of the problems surrounding separation of ownership and control, as we have seen in the introduction of this chapter. In this section corporate governance will therefore be discussed shortly in order to place the theories on executive compensation in the prospective chapters and sections in the right context.

Corporate governance can be used to diminish the arising conflicts of interest due to the separation of ownership and control. Corporate governance can also be used to motivate executives in behaving in a manner that is in the best interest of the company (Bodolica & Spraggon, 2009). Corporate governance can also be described as: *"the ways in which suppliers of finance to corporations assure themselves of getting a return on their investments."* (Shleifer & Vishny, 1997, p. 737).

The financial statements were originally used for giving accountability for shareholders. However, gradually the financial statements became a document meant for a much larger public than only the shareholders. The financial statements are nowadays used by various stakeholders. Stakeholders are not only shareholders and debt holders, but also suppliers, clients, unions, and so on. Due to the variety of the different stakeholders, the interest in the various forms of financial information also differs in a great deal (Ernst and Young (Bohmer, 2008).

In the Netherlands the commission Tabaksblat introduced the corporate governance code. This code describes the best practices regarding the behaviour of the executives and the board members (in the Netherlands, the management and the board of commissionaires). In short, the corporate governance code describes for which behaviour the executives can be held accountable. The problem with the view that corporate governance deals with everything that management can be held accountable for, is that it includes a lot of different aspects like legal aspects, behavioural aspects, leadership, and even more can be named.

Strikwerda (2002) tries to capture all these aspects into four classifications. These will be discussed in the next sub section.

2.2.2 Strikwerda

The four classifications Strikwerda (2002) uses are:

1. The business administration approach;
2. The legal Approach;
3. The economic approach;
4. The management control approach.

Ad 1) In the business administration approach the central point is taking initiative and being entrepreneur. Entrepreneurship is driven by personality and personal motives of the entrepreneur. Due to the fact that most companies are nowadays led by paid managers instead of the original owner, the question arises what the obligations of these managers are. The business administration approach mainly emphasizes some sub tasks of the manager.

Ad 2) The legal approach emphasizes responsibility and legal liability for executives regarding the company and regarding third parties. The company is the legal entity which itself carries obligations and duties. The company is still no natural legal entity. The company has to deal with matters through real natural persons, the executives. These executives must be addressed for their actions.

Ad 3) Strikwerda (2002) uses the conceptions of Commission Peters and Tricker (1984) to explain the management control approach. Commission Peters was the first commission on corporate governance in the Netherlands. Commission Peters (1996) states that corporate governance is about:

- Managing and controlling;
- Responsibility and authority;
- Responsibility and supervision;
- Transparency and Integrity

In general the management control approach is about making demand on the management. The management control process focuses on setting, executing and maintaining the corporate governance process. This process has to be executed by the executives themselves. Management and internal governance are primary internally aligned, although management has external tasks also. Subsequently, Strikwerda (2002) refers to the concept of Tricker to align these internal and external tasks.

In order to align the internal and external tasks, Tricker (1984) uses 4 governance processes:

- Direction: Formulation of strategic direction of the organization.
- Accountability: give account to the people who have a legitimate demand for that.
- Supervision: Inform and keep supervision of the management of operational departments.
- Executive action: involvement in the crucial decisions for the corporation.

Ad 4) In the economic approach Strikwerda (2002) uses the economic organisation theory to investigate whether a company is applying good corporate governance. This is done on the basis of four criteria. These criteria are:

- A complex organization coordinates her activities more effective and more efficient than the market.

- The executives of the organization should be able to apply capital better than the market could have done.

- The separate executives should be able to bring the operations of the firm to a higher performance than when these operations would be independent.

- The executives have the possibility to restructure the organization when necessary, without force or intervention from outside, like forced take-overs, break ups etc

In the economic approach Strikwerda (2002) asks the question on what managers can be held accountable for. To answer this question, three approaches can be emphasized. These approaches are the stakeholder approach, the shareholder approach, and the legitimacy approach. In section 2.2.3 below, these three approaches are further discussed.

2.2.3   Stakeholder, shareholder, and legitimacy approach

The stakeholder approach states that all people and groups who have some sort of interest in the company are important for the company and for the decisions that have to be made by the executives. The shareholder approach states that the interest of the executive in making decisions should only be with the shareholder of the company (Boot & Soeting, 2004).

Whether executives can be held accountable for stakeholder value is discussed by Jensen (2000). According to Jensen (2000) the stakeholder approach cannot hold. Managers can't be accountable for all stakeholder value. He emphasizes that stakeholders are with too many so this results in too much accountability for the executives. Further, stakeholder value is difficult to measure. Without measurement it is impossible to hold executives accountable for their actions.

The other approach, the shareholder approach, is holding great popularity. Managers can be held accountable for shareholder value. Shareholder value is measured through the value of the shares on the market. Again a problem arises here. The share price is dependent on much more than only the actions of the executives. For example, the market circumstances play an important role in the share price. Another issue with the shareholder value is that maximizing the value for shareholders cannot be realized without also maximizing the stakeholder value. This means that for the shareholder approach to hold, the stakeholder approach also must hold. (Strikwerda, 2002).

Jensen (2000) suggests that the executives should have firm maximization in the long run in their minds when operating the firm. This would make the greatest contribution to society as a whole. This approach is called the legitimacy approach. Within this approach the view of the society on the company plays an important role. Not only is it important whether the company acts in a legal manner, but also whether actions of the company are good for their reputation (Boot & Soeting, 2004).

In this thesis the emphasis will be on the Strikwerda (2002) economical approach and the management control approach. CEO compensation is part of both the management control approach and the economic approach of corporate governance. The agency theory, which will be discussed in the next section, is part of the economic approach of corporate governance.

2.3 Agency Theory

2.3.1 Introduction

The agency theory describes the problems regarding the different preferences owners and managers have as explained in the introduction of this chapter. However, the agency relationship not only exists between owners and managers, but also between debt holders and stockholders for example. In this thesis the emphasis will be on the agency conflict between shareholder (owners) and managers (executives). The next subsection first discusses the agency problem in more detail. The interpretations of Eisenhardt (1989) and of Jensen and Meckling (1976) will be discussed. Subsection 2.3.3 describes the assumptions surrounding the agency problem. The final subsection explains the possible solutions to the agency problem.

2.3.2 Agency problem

According to Eisenhardt (1989) there are two directions of the agency theory. The first direction is the principle-agent research stream. The principle-agent research regarding the agency theory is a general theory which can be based on several relationships. Examples are attorney-client relationships and buyer-supplier relationships.

The principle-agent research emphasizes research on which contract is most efficient under the different levels of outcome uncertainty, risk aversion, information asymmetry and other variables. In fact the research focuses on determining the optimal contract (Eisenhardt, 1989).

The second direction of the agency theory is the theory which will be used in this thesis. The second direction of the agency theory is the positive theory on the agency problem. In general, positive theory describes observations as they are and positivism may even predict occurrences (Babbie, 2007). Positive research regarding the agency theory focuses on situations where the principles and the agents have conflicting goals. To limit the self interest behaviour of the agent corporate governance mechanisms are implemented. With this theory the principle is the owner of the company and the agent is the executive of the company (Eisenhardt, 1989).

Another characteristic of the positive research regarding the agency theory is that the principle has various contracting possibilities to diminish the self-interest behaviour of the agent. The final feature of the positive research is that a policy is developed in which the preferences of the shareholders and the managers are levelled out due to an outcome based incentive (Eisenhardt, 1989).

Jensen and Meckling (1976, p. 308) define the agency relationship as follows:

"A contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent."

The agent (executive) can be seen as the person who has to act on behalf of the principle (owner). If both parties want to maximize their own preferences there is a good reason to believe that the agent will not act in the best interest of the company and therefore will not act in the best interest of the principle. Due to the fact that principles do not have the same preferences as agents, contracts have to be composed to align these interests (Jensen & Meckling, 1976).

According to Jensen and Meckling (1976) principles and agents both are making costs due to the agency problem. These costs consist of:

- The monitoring costs: The principle has to give the agent an incentive to act in the best interest of the company. In making sure the agent acts in the best interest the principle has to monitor the actions of the agent. The costs hereby involved are the monitoring costs (Jensen & Meckling, 1976).

- The bonding costs: If the principle wants to make sure an agent doesn't take certain actions, the costs incurred with this are the bonding costs. Bonding costs are also costs for compensating the principle if the agent did take certain actions which weren't in the best interest of the company (principle) (Jensen & Meckling, 1976).

- The residual loss: Due to the fact that the decisions of the agent don't always align with welfare maximization for the principle, this divergence of welfare loss also represents some costs. These costs are called residual loss.

- Structuring costs: With contracting the incentive for agents to act in the best interest of the company (principle) is enhanced. To structure these contracts costs are involved. These are the structuring costs (E. E. F. Fama & Jensen, 1983).

In order for the agency theory to hold, several assumptions have to be made. In the next sub section these assumptions will be discussed.

2.3.3 Assumptions

Before the assumptions will be discussed it is important to notice that the assumptions are based on a specific definition of an organization. Tosi and Gomez-Mejia (1989, p. 170-171) come to the following definition of an organization according to the agency theory:

"In agency theory, the organization is seen as a nexus of implicit and explicit contracts among participants such as owners, employees, managers, other suppliers of capital, and so forth who make contributions to the organization and in return receive payments for it."

The contracts mentioned in the definition are necessary because of the existence of several assumptions. Eisenhardt (1989) observes these assumptions regarding the agency theory. The assumptions can be divided in three main categories and several sub categories.

1. Assumptions concerning people
    a. Self Interest: People tend to behave in a particular way in order to maximize their own situation. This self interested behaviour is also called self centred behaviour (Tosi, Werner, Katz, & Gomez-Mejia, 2000).
    b. Bounded rationality: This assumption is, like self interest, on the individual level. Bounded rationality concerns the limitations of rationality in making decisions. It is composed of three parts. First there is the boundary that people do not have full information. Also, individuals are limited by their capacity to understand everything. There are always issues that are beyond their comprehension. The final boundary is about time. Time for making decisions is scarce and sometimes individuals have to make quick decisions which make the rationality diminish.
    c. Risk Aversion: The assumption about risk aversion is that principles and agents have different risk preferences. According to Tosi et al. (2000) agents are risk averse.

2. Assumptions concerning organizations
    a. Goal conflict: The principle and the agent have different goals within the organization. The principle is concerned with the going concern principle and with profit maximization. The agent is concerned with maximizing his own interest. This can be prestige or bonuses (Tosi et al., 2000).
    b. Information asymmetry between principle and agent: The agent has more complete and better information than the principle does (Eisenhardt, 1989).

3. Assumptions concerning information
This assumption obviously relates in a great deal with the organizations assumption that there is information asymmetry between the principle and the agent.
    a. Information is a commodity and can be purchased: In order to obtain the right amount of information, information has to be purchased. This will of course lead to costs to obtain the needed information to diminish the information asymmetry (Levinthal, 1988).

2.3.4 Solutions to agency problem

In order to diminish the agency problem and the agency costs some solutions can be appointed. In this subsection contracting, internal control system, the labour market for managers, the market for corporate control, the legal system, the product and factor markets, and the compensation structure of the company are introduced as solutions to the agency problem.

2.3.4.1 Contracting

Contracting is already mentioned as a way of diminishing the agency problem. Eisenhardt (1989) acknowledges two different contracting possibilities. The first is behavior oriented contracting. With this kind of contracts the principles try to force, observe and evaluate the behavior of the agents.

The second form of contracting is the outcome-based contracting in which the principle sets a goal to be evaluated at the end of a certain period. These contracts co-align the preferences of the agent with the preferences of the principle and curb the opportunistic behavior of the agent. The agent can be rewarded for meeting a target, or can be punished for not meeting a certain target (Eisenhardt, 1989). More on these latter contracts will be discussed in the sub section on compensation structure. Not only contracting between the owner and the manager of the company, but also private contracts with debt holders can diminish the agency problem. If managers have to pay their debts, they will be more likely to act only in self interest (Shleifer & Vishny, 1997). In the next section on the optimal contracting approach and the managerial power approach more attention will be given to the solution of contracting.

2.3.4.2 Internal Control System

Not only contracting is a way of diminishing the agent's opportunistic behavior. The same can be realized with an information system. An information system informs the principle of what the agent is actually doing. The problem with the principle agent junction in the case of the owner versus the manager is that the owner most of the time doesn't have access to the information system. The owner is dependent on the information provided by the manager or by the board of directors (E. E. F. Fama & Jensen, 1983).

Fama and Jensen (1983) distinguish an internal control system as a solution for the principle-agent problem. The four steps they describe are as follows:

- Initiation: generation of proposals for resources utilization and structuring of contracts.

- Ratification: choice of the decision initiative to be implemented.

- Implementation: execution of ratified decisions.

- Monitoring: measurement of the performance of decision agents and implementation rewards.

Because the initiation and the implementation of decisions typically are allocated to the same agents, it is convenient to combine these two functions under the term decision management. Likewise, the term decisions control includes ratification and monitoring of decisions. Decision management should be performed by the executives and decision control should be performed by the board. In this way the board acts in favour of the owners. Without separation of decision management from decision control, residual claimants have little protection against opportunistic actions of decision agents, and this lowers the value of the unrestricted residual claims (E. E. F. Fama & Jensen, 1983).

Part of the internal control system is the executive compensation system (Swagerman, 2007). Due to the fact that this is an important part of this thesis this solution will be discussed separately in the next subsection.

2.3.4.3 Compensation Structure

As noted earlier the shareholders are primarily interested in firm value maximization and the agents, the managers, are primarily focussed on their own wealth maximization. Due to the fact that shareholders often hold small amounts of shares, their interest is often not in the activities of the firm or in monitoring the behaviour of the managers (Swagerman, 2007).

Swagerman and Terpstra (2007) also acknowledge three problems with the agency theory. First they distinguish the difference between agents and principles in the desired goals. They also distinguish a difference in preferences towards risk, as Tosi et al. (2000) did. The final assumption they emphasize is the difficulty for the principle to know what the agent is actually doing. According to the researchers these three problems in the agency theory find their origin in the theory of human behaviour. The most important features of this theory are that people act only in a self interested manner, they are risk averse, and they are limited by bounded rationality (Swagerman, 2007).

In order to diminish the risk of agents not acting in the best interest of the shareholders, a compensation structure can be implemented so that the preferences of the agents and the principles become more aligned. Swagerman and Terpstra (2007) suggest that with equity based compensation, like stock options and share holdings, the agents (executives) are encouraged to take more risk in managing the company. This may lead to a higher firm value which will also favour the executives if they hold some equity in the firm. Not only will the agents take more risks, they will also act less in their self interest by reducing waste and excessive consumption of perks, because waste would reduce the value of the firm and therefore reduce the value of the shares the managers hold.

Further elaboration on executive compensation will be in chapter three, where more theories and characteristics on this subject will be discussed.

2.3.4.4 Executive labour market

Swagerman and Terpstra (2007) see the executive labour market also as a means of diminishing the agency problem. Executives face punishments or opportunities for their behaviour in and outside the firm. Inefficient executives will be less appealing to other companies for jobs and will be less rewarded with compensation.

2.3.4.5 Market for corporate control

An important part of the executive labour market is the market for corporate control. Jensen an Ruback (1983, p. 5) define in their paper that corporate control is

> *"The rights to determine the management of corporate resources, that is the rights to hire, fire and set the compensation level of top managers."*

When a firm acquires another firm the control rights over the corporate resources shift from one company to another. In the market for corporate control the companies compete for the right to control these recourses. This market for corporate control is also often referred to as the market for takeovers.

Before the managerial model became important, the view ruled that moneylenders and shareholders bought the control of the company and they could hire and fire managers to get better results with the company. Nowadays the view is that shareholders are relatively passive and they are dependent on the management teams for deciding which resources they want to control and manage (Jensen & Ruback, 1983). The firm is viewed as a team and the members of the team work together in order to help the firm survive or to gain control over other teams (E. F. Fama, 1980).

If a team is inefficient and not performing very well, the danger exists that other management teams may offer their services to the shareholders. This will result in a merger or takeover. In order to prevent this from happening, the agent will try to act in the best interest of the shareholder and the agency problem will diminish (Swagerman, 2007).

2.3.4.6 Legal system

The behaviour of executives can be influenced by setting a legal, political and regulatory system which disciplines executives. In this way the agency problem can be reduced (Swagerman, 2007). In the section about corporate governance a great deal of attention has been paid to this solution to the agency problem.

2.3.4.7 Product and factor markets

The products and factor market helps to discipline executives to work in an efficient manner. When executives work in an inefficient or costly manner due to low quality products or too expensive products, the firm could become unprofitable. This will lead to going concerns problems for the firm and eventually lead to labour problems for the executive. It is therefore in the best interest of the executive to work in an efficient way and thus in the best interest of the company (Swagerman, 2007).

2.3.5   Reflection

Important to mention is that none of the solutions mentioned will ever make the agency problem disappear fully. Neither will the agency costs be brought to zero. The solutions help to diminish the problem and help to minimize the agency costs. But to implement a solution also increases the agency costs. Contracting for example is not costless and diminishing the agency problem is a balance between the costs for contracting and the agency costs. The company has to find a balance between these two (E. E. F. Fama & Jensen, 1983).

2.4   Optimal contracting approach and managerial Power approach

Besides the agency theory two other approaches are important for the subject of executive compensation after an acquisition. Fama and Jensen (1983) discuss an internal control system for decreasing the agency costs. Part of the internal control system is the way executives are paid for their work. The two approaches in this section are both ways of decreasing the agency costs through executive compensation. In the first sub-section the optimal contracting approach is discussed. The next sub-section discusses the managerial power approach.

2.4.1   Optimal Contracting approach

According to the optimal contracting approach the board of directors of a firm set the executive payment in such a manner that shareholder maximization is achieved. Executives do not automatically maximize shareholder value because they want to maximize their own wealth (Bebchuk, Fried, & Walker, 2002). According to Bebchuk and Fried (2002) there are two ways in which an optimum contract can evolve.

1. Arm's length bargaining between the CEOs and the board of directors. With negotiation between the executives and the board an optimal contract emerges in which the executive and the board both can maximize their own values. The executive maximizes his or her own values and the board maximizes the values on behalf of the shareholders. The problem with forming an optimal contract is that it is time consuming, and therefore costly (Bebchuk & Fried, 2003).
2. Through automatic market constraints. These constraints motivate the board and the CEOs to adopt the optimum compensation contracts. An example of a market constraint is a peer group benchmark used for setting executive compensation. The problem with this approach is that members of the board are partially dependent on the CEO for the re-appointment to the board. So the director (member) also has an incentive to approve of CEO compensation for his own value maximization, as long as the compensation is within the reasonable bandwidth, which is justifiable, and defendable (Bebchuk & Fried, 2003).

Another reason why the optimal contracting approach is difficult to hold according to Bebchuk and Fried (2002) is that directors often have friendship relationships with the other board members and the CEO and they do not have an incentive to nag about CEO compensation. The fourth reason is that directors often lack sufficient information to make shareholder maximizing decisions regarding CEO compensation. Bebchuk and Fried (2002) state the final problem with the optimal contracting approach is that the market doesn't put tight constraints on CEO compensation. So directors have great discretion in what they can approve for CEOs.

2.4.2   Managerial Power Approach

The second approach to CEO compensation besides the agency theory is the managerial power approach. This approach assumes that managers have the power to influence their compensation. They use this power to extract rents. Rents are described as excess pay on top of the compensation that would be optimal for maximizing shareholder value (Bebchuk et al., 2002).

According to Bebchuk and Fried the managerial power approach consists of two building blocks. These building blocks are:

1. The outrage costs and constraints: Although CEOs can have influence on their own pay, there still are invisible but costly constraints to consider. The constraints are tightened through the anger from the 'public' at large on the CEO compensation. Compensation which causes a public outrage can cause embarrassment and reputational damage. This probability of outrage will reduce CEOs to propose certain compensation plans and will reduce the likelihood that directors will approve of a compensation plan that is too large.
2. Camouflage: Outsiders might recognize rent seeking behaviour by CEOs and can cause outrage costs. In order to avoid this outrage CEOs are willing to camouflage the rent seeking behaviour. In order to camouflage, the CEO will make use of a less efficient CEO compensation plan which decreases shareholder value.

Under the managerial power approach, CEO compensation plans are designed with the tendency of reducing outrage costs. Reducing outrage costs is staying within the constraints of acceptability and legitimacy (Bebchuk et al., 2002). In order to find the outrage costs, close monitoring is necessary.

2.5   Summary and conclusions

In this chapter an overview about the theories supporting executive compensation are given. Executive compensation is part of corporate governance. Corporate governance is used for executives to behave in the best interest of the company and its shareholders. Corporate governance helps to diminish the problems that arise due to the separation of ownership and control. The agency theory is also based on the conflict surrounding the separation between ownership and control. In this thesis especially the agency problem between the executive and the shareholder will be discussed. In the thesis the subject regarding executive compensation after an acquisition is discussed. The agency theory lays a foundation for this research because it is interesting to know whether the executives act in the interest of the shareholder of the company or that they act in their own interest when they acquire another company. The former is related to the agency theory, because executives do not act in the interest of the shareholders themselves, so if they do, they are motivated by a system of contracts designed to align the interest of shareholders with the interests of the executives. The latter is related to the managerial power approach in which executives can make decisions in order to influence their compensation. The next chapter will further elaborate on executive compensation. As we have seen in this chapter executive compensation contracts can be used in order to diminish the agency problem. The components of executive compensation and the factors that influence executive compensation will be discussed.

3 Executive Compensation

3.1 Introduction

In the previous chapter a closer look was taken into the broad theories surrounding executive compensation. In this chapter executive compensation will be discussed in more detail. Executive compensation differs a great deal from compensation for other employees of a firm. The difference can be seen in the light of the agency theory (Tosi and Gomez-Meija, 1989). The principles (owners) of the company set contracts with the agents (executives) of the company. These contracts are used as an agreement between the agent and the principle for aligning the preferences of both parties, for setting the way of judging the performance, and the way of setting the pay-offs of these performances (Tosi Jr. & Gomez-Mejia, 1989).

As noted in the former chapter, contracts can be used for diminishing the agency costs. These contracts are used for two reasons. First they define the system that is used for monitoring the agent's actions and second they are used to set the reward structure. This reward structure includes the way in which the incentives of the executives are aligned with the incentives of the owners of the company. The reward structure is set up in order to encourage the manager to make decisions that are in the best interest of the shareholders (Tosi Jr. & Gomez-Mejia, 1989).

This chapter will be structured as follows. In the first subsection the different forms of compensation will be discussed. The second section will elaborate on the factors that influence executive compensation. This section will help to understand what determines executive compensation in the first place and whether these factors also hold in an acquisition situation. Finally a summary and link is given between executive compensation and the subject of the thesis.

3.2 Different forms of executive compensation

In this section a closer look will be given into the compensation of executives. The question of what the compensation of executives consists of will be answered. An executive compensation scheme is mostly build on a cash component and a non-cash component. Both elements contain some sub elements as well. These elements will be discussed below.

3.2.1 Cash compensation

Base Salary: The base salary of the executive is typically based on a competitive benchmark referring to the same industry or market. The base salary is the key component of the total compensation of executives. Especially risk averse executives rather have a certain base salary than an uncertain bonus or option plan. Base salary is mostly used as a reference point for other components of compensation. Bonuses are, for example, often calculated as a percentage of base salary. This results in an increase in other components of total compensation when base salary also increases (Murphy, 1998).

Annual Bonus Plans: According to Murphy (1998) an annual bonus plan is tied to the firm's accounting performance. The annual bonus plan can be categorized in three basic components.

- Performance measures: The bonus plan can be based on firm's performance measurements. The performance measure can be financial and non financial. The financial performance measures mostly rely on a measure of accounting profit, net income, earnings before interest and taxes (EBIT) or revenues. The non-financial measures mostly rely on customer satisfaction, individual executive performance, or operational or strategic goals. Performance measure can be used as a single component of the annual bonus, but also a combination of different measures is possible (Murphy, 1998).
- Performance standards: The performance standard is used to determine on what standard the performance on which the annual bonus is based, is determined. Examples are budget standards (performance against firm's annual budget goals), prior year standards (based on performance based on year-to-year growth), and peer group standards (performance related to performance of other companies in the same industry) (Murphy, 1998).
- Pay-performance structures: Finally a pay-performance structure has to be set. There are various methods for calculating compensation. An example often used is that no bonus is paid unless performance exceeds 80% of performance standard. When performance exceeds 120 % no excess pay is granted (Murphy, 1998).

The annual bonus plans are granted in order to give the agent (manager) the incentive to increase the profit of the firm. The annual bonus plans can be used in order to diminish the agency problem.

3.2.2 Non-Cash components

Stock options: Compensation with stock option gives the executive the right to buy a share at a pre specified price and/or at a pre determined date. These stock options cannot be traded. This stock option is lost when the executive leaves the company before vesting. Stock options provide a link between executive compensation and share value. If share prices increase, the value of the option also increases. Thus, the executive has an incentive to maximize shareholder value in order to also maximize his own wealth (Murphy, 1998).

Long term incentive plans (LTIPs): According to Murphy (1989) long term incentive plans are mostly based on three or five year cumulative performance. LTIPs include restricted stock plans, and multiyear accounting based performance plans. LTIPs also help to align the incentives of managers and shareholder. Managers have a long-term incentive for good performance, because they otherwise miss out on their LTIP.

<u>Stock Ownership:</u> When managers have shares in their portfolio this of course also gives them an incentive to maximize shareholder value, because they are shareholders themselves in this instance.

<u>Other non-cash components:</u> Other non-cash components an executive can receive are for example life insurances and supplemental executives retirement plans (Murphy, 1998).

Moreover, total compensation can be defined as the sum of base salary, annual bonus, LTIP awards and stock options granted (Canyon & Murphy, 2000).

3.3 Factors influencing executive compensation

This section will discuss what determines executive compensation. Which factors may be of influence on the form and the magnitude of compensation? The factors discussed will be divided in firm specific factors and executive specific factors.

3.3.1 Firm specific factors

I. <u>Firm size</u>

According to Simon (1957) most variances in executive compensation are due to the size of the company. This means that an increase in the size of the firm also increases the magnitude of the executive compensation (E.g.(Core, Holthausen, & Larcker, 1999; Murphy, 1998; Tosi et al., 2000)). Different features have an influence on firm size and therefore executive compensation. These features will be discussed below.

- Larger firms have more and greater growth opportunities and higher investment opportunities. This demands a more qualified executive, and a more qualified executive will demand a higher compensation (Core et al., 1999; Murphy, 1998)
- Executive productivity varies with the size of the firm in a positive way. The larger the firm, the larger the productivity. This again would lead to higher compensation (Agarwal, 1981).
- Number of management levels under the executives. The larger the firm, the larger the number of management levels in the firm. More management levels under the executive again ask for more skills (Simon, 1957). However, Agarwal (1981) found that this increase in management levels due to the increase in company size only happens until a certain point. The number of levels do increase, but at a diminishing rate.

- Job complexity. The more complex the job the executive has to perform, the more compensation will be granted. In large companies, overall, the jobs are far more complex to execute than the jobs in smaller corporations. Examples of complexity are the number of persons directly supervised, the number of management levels under the executive (discussed earlier), the geographic span of the firm, and the number of divisions the executive has responsibility over. (Simon, 1957).
- Larger companies, in general, have greater ability to pay higher wages than smaller companies do. Larger firms are able to attract higher executive talent and will do so in order to keep a high level of qualified executives (Simon, 1957).

A greater firm size not only offers the executive a higher pay, but also offers the executive more prestige, less compensation risk (larger firms are better protected against business cycle variance), and a legitimate reason for increasing their compensation (Gomez-Mejia & Wiseman, 1997).

II.   Compensation risk and firm risk

As explained in the section on the agency theory, agency problems arise, among others, because shareholders and executives have different risk preferences. In order to align these preferences different compensation arrangements can be used. Compensation could for example place some of the risk on firm outcome on the executives in order for them to act in the interest of the company instead of acting only in their self interest (Gray & Cannella Jr., 1997). However executives who are subjected to too much risk are likely to become risk averse (Jensen & Meckling, 1976). Therefore compensation should help to find a balance for executives for sharing the risk with shareholders and gaining too much risk. If the risk becomes too high executives demand a higher risk premium in the form of higher compensation levels (Beatty & Zajac, 1994). Thus, compensation levels are influenced by the firm's risk and used in order to balance the executive's effort and the executive's risk aversion (Bloom & Milkovich, 1998).

III.   Firm Industry

Different industries relate to different forms and magnitudes of executive compensation. Firms often base a part of their compensation on a benchmark of industry peers (Murphy, 1998; Roberts, 1956).

IV.   Firm Performance

Whether firm performance is of influence on executive compensation is an intensively researched subject. According to Madura and Jeff (1996) a positive relationship should be found if performance is a factor that influences executive compensation. However in the researches executed mixed results can be found. Jensen ad Ruback (1983) found a significant positive relationship for example, however Cornelisse et al (2005) found no relationship between performance and executive compensation.

V.   Market forces

The marginal productivity theory suggests that executive compensation is determined through the supply and demand for executive talent. According to this theory, executive compensation must be treated as any other input or factor of production. Executives can be punished for gaining excessive compensation and for not delivering good business decisions. Competition between executive talent forces the classical productivity theory to look beyond the supply and demand picture (Gomez-Mejia & Wiseman, 1997).

VI.   Social comparison

Another theory that can explain executive compensation is the social compensation theory. This theory suggests that compensation paid to selected peers may play a role in the magnitude of the executive compensation. Compensation Boards determine the magnitude and form of executive pay most of the times. Board members are often executives themselves in other companies. In order to determine the magnitude of the executive pay they take their own compensation as a reference (O'Reilly III, Main, & Crystal, 1988).

VII.   Firm's Leverage and equity holdings

As we have seen with the factor firm risk, executives who bear more risk will demand a higher compensation level (Beatty & Zajac, 1994). If the firm has a relative high leverage level, the firm has a higher risk than firms with lower levels of leverage relative to equity. Executive cannot diminish this type of risk themselves, so again they require a higher level of compensation (Madura et al., 1996).

VIII.   Monitoring

In firms where there are just a few but large shareholders, the monitoring function is much larger and more intensive than it is in a widely held corporation. This implicates that in more widely held firms (more relatively small shareholders) the agency problem is much greater due to the lack of monitoring, and the level of executive compensation will be much larger (Dyl, 1988).

3.3.2 Executive specific factors

I.   <u>Human capital/Education</u>

The productivity of a worker is determined by his or her amount of human capital. Productivity is positively related to executive compensation, so the more human capital, the more executive compensation. A measure of human capital is, for example, the years of experience and the level of education (Simon, 1957)(Agarwal, 1981). The level of degree also represents the amount of human capital an executive has (Madura et al., 1996).

II.   <u>Age</u>

The influence of an executive's age on compensation is ambiguous. In the first place the age of the CEO is positively related to human capital. As we saw before, human capital is positively related to executive compensation. The age of an executive is therefore a factor that influences compensation in a positive way (Ingham & Thompson, 1995). Contradictory, the age of an executive may also be negatively related to executive compensation. An older executive is less risk averse, because the risk of image loss is less significant. So they demand lower premiums for the risk (Gray & Cannella Jr., 1997).

III.   <u>Tenure</u>

The tenure of the executive represents the experience the executive has on that position within the firm. The amount of experience as stated above is of influence on the human capital and therefore of influence on compensation levels. The tenure of the executive is therefore of influence in the level of executive compensation (Madura et al., 1996).

IV.   <u>Stock Ownership</u>

CEO compensation may be related to stock ownership. Executives that maintain a large proportion of the firm's stock are hypothesized to receive less total compensation. Income from stock is exposed to lower taxation than income from labour. This indicates that executive's with higher stockownership in the company receive less base salary than executives who don't owe a lot of stock in the company (Madura et al., 1996).

3.4   Summary and conclusions

This chapter provided an overview of executive compensation. First the components of executive compensation were discussed. These were divided in cash components and non-cash components. Furthermore the firm factors and the executive factors that might influence executive compensation are elaborated on. A well designed compensation package can be seen as a solution to the principle-agent problem between shareholders and executives. The components mentioned in this chapter all have an individual purpose for aligning the incentives of executives with those of the shareholders. In the research conducted in this thesis and in the empirical literature in the next chapter these components of compensation will return in order to explain why certain forms of compensation have greater impact on an acquisition decision for example than other components do. The factors described in this chapter will be extensively discussed again in the research design and most factors will serve as a variable for the conducted research. The next chapter gives an overview of the existing empirical literature regarding the relationship between executive compensation and acquisitions activities.

4 Empirical literature

4.1 Introduction

In this chapter an overview of the empirical literature available on the relationship between acquisitions and executive compensation is provided. The studies described all examine the relationship between an acquisition and executive compensation. Moreover, the studies all describe the effect on executive (or solely CEO) compensation after a merger and acquisition activities. The difference between these studies is that they all examine just one or two factors, different to one another, that can be of influence on executive compensation after an acquisition. Except for the research by Coakley and Ilipoulou (2006) all researches have been executed on US companies.

The existing literature on the subject matter is not yet very extensive. Therefore all possible research has been selected and no selection had to be made. On the next page an overview of previous studies is given in table 1.

This chapter will be used to form hypotheses and will be used to compare the outcome of the executed study of the thesis. In order to give a clear overview; the chapter is divided in sections which provide the main subjects of interest in the existing literature. The sections are classified as follows. First the existing research on CEO compensation and firm size is discusses. As noted earlier firm size is supposed to be the main factor of influence on executive compensation. Whether this statement holds in an acquisition situation will be elaborated on in this section. The second section elaborates on the effect that different forms of CEO compensation have on acquisition decisions. In the third sub paragraph a study is discussed which examines the role of bonuses on acquisition incentives. Slightly different than the other scholars do these writers put emphasis on bonuses especially granted for closing the acquisition deal. The final sub paragraph examines the difference in form of firm control and CEO compensation after an acquisition.

Author(s)	Country	Main object	Sample	Main Findings
Smidt & Fowler (1990)	US	Relationship between firm performance and compensation.	51 acquiring firms, 35 control firms. SIC 2000-3999. 1971-1983	Poor performance after a major acquisition. Significant increase in cash compensation for those firms.
Kroll, Wright, Toombs & Leavell (1997)	US	Influence of Firm Control on CEO compensation after M&A.	209 M&A firms between 1982 and 1991 (WSJI)	Owner controlled: positive relations between M&A announcements, positive access returns, and CEO compensation. Management and owner-management controlled: positive relations between firm size and CEO compensation.
Avery et al. (1998)	US	Reasons for engaging in an acquisition.	1986-1988	Acquiring executive compensation growth is not significantly different from non acquiring executive compensation growth. Compensation changes do not depend on whether the acquisition increased shareholder value.
Khorana & Zenner (1998)	US	Relationship between firm size and executive compensation.	27 firms, 46 executives. 1982-1986	Executive compensation only related to firm size in combination with acquisitions. Otherwise no relationship.
Bliss & Rosen (2001)	US	Relationship between M&A and CEO compensation	32 U.S. Banks between 1986 and 1995 (SDC). 66 mega-mergers were used.	Positive relation between Firm Size and CEO compensation after acquisition. Form of compensation explains M&A decisions. Stock-based compensation CEOs make less M&A.
Datta, Iskandar-Datta & Raman (2001)	US	Influence of CEO EB (Equity based)-compensation structure on M&A decisions.	1719 Acquisitions by 771 firms 1993-1998 (SDC)	Strong positive relation between EB compensation and stock price returns around announcement date. CEO stock option grants provide incentives for CEOs to make value maximizing M&A decisions.
Wright, Kroll & Elenkov (2002)	US	The role of monitoring in explaining CEO compensation	182 publically held M&A companies 1993-1998.	With external monitoring, CEO compensation is influenced by acquisitions returns. Without or with less external monitoring, compensation is influenced by increase in firm size.
Grinstein and Hribar (2003)	US	CEO compensation for the completion of M&A deals	327 M&A companies 1993-1999. (SDC). Deal > 1 billion.	Higher bonus compensation when deals are larger. Skill and effort do not explain variations in bonus size. Deal size correlated with more managerial power, which explains M&A bonuses.
Coakley & Iliopoulou (2006)	UK/US	Impact of acquisitions on acquiring executives.	73 UK bidding, 27 US bidding on UK firms1998-2001	Larger boards and less independent boards award executive higher bonuses and higher compensation after an acquisition.
Harford & Li (2007)	US	Relationship between CEO compensation and M&A incentives.	370 M&A deals by 362 firms 1993-2000 (SDC)	CEO compensation is insensitive for negative stock returns after M&A. Stronger Boards retain sensitivity of CEOs compensation.

Table 1: Overview of the empirical literature

4.2 Acquiring executive compensation and management incentives

In the former chapter the theories regarding acquisitions is discussed. This section examines the incentives of managers beside the incentive for manager to engage in an acquisition to maximize shareholder value. As already stated before, according to most researchers acquisitions do not result in an increase in abnormal returns. (E.g. Avery et al. and Jensen and Ruback) most acquisitions do not result in shareholder value maximization. So the incentives executives have for engaging in an acquisition may be different from shareholder value maximization.

Avery et al (1998) examined what the reasons are for executives to engage in an acquisition. They examine the executive compensation changes after an acquisition of 25 million or greater. Further they examine the image changes of executives after completing an acquisition. The research is executed in the US from 1986 to 1988. They examined 346 CEOs in that period.

What they find is that executives who executed an acquisition did not receive significantly more compensation than executives who did not engage in an acquisition. They also find that the effect on compensation after an acquisition does not depend on whether the acquisition was shareholder value increasing or not. However they do find that CEOs who completed an acquisition were more likely to receive an outside directorship than those who did not complete an acquisition (Avery, Chevalier, & Schaefer, 1998). So they find that executives do not engage in acquisition because they increase their compensation, however according to Avery et al. they engage in acquisition to increase their image in the business community. Avery et al. implicate that image building through an acquisition occurs because executing an acquisition is evidence that the executive has enough skills to mange a large, diversified enterprise.

Kroll et al (1997) also examines the incentives of managers for engaging in an acquisition. They take the differences in form of control as a variable for the executive compensation after acquisitions. They distinguish three forms of corporate control:

1. Manager-controlled firms (MC): In these firms the shareholders lack monitoring control because of the diffusion of shareholders. CEOs are more likely to maximize their own value.
2. Owner-Controlled firms (OC): These firms have one or at least little shareholders so the shareholder(s) can closely monitor the actions of the CEO. CEOs therefore have less incentive to maximize only their own wealth. In the owner-controlled firm CEOs might engage in an acquisition in order to diversify the firm and for image purposes as was explained by the study of Avery et al (1998).
3. Owner-Manager-Controlled firms (OM): The CEOs themselves have a significant ownership in the firm. This gives the CEO the incentive to benefit the shareholders in order to gain maximization as well.

4.3   Acquiring executive compensation and firm size

In chapter three the factors influencing compensation were discussed. One of the main factors that influences compensation is firm size. In this section special attention is given to this factor of influence on executive compensation. Khorana and Zenner (1998) investigate whether the documented positive relationship between firm size and compensation (e.g. Core 1999, Simon 1957) holds all together in an acquisition situation. In their study they examine the changes in compensation after an acquisition controlled for changes in executive position and the acquiring stock performance after the acquisition. They also investigate whether executive compensation relates to sales-growth, the quality of the acquisition, the change in the riskiness of the firm after the acquisition, the industry of the acquiring company, and the relationship between the target firm and the acquiring firm.

In the study they investigated 46 executives in 27 companies between 1982 and 1986 in the US. They also use a control group of companies in the same industry (Khorana & Zenner, 1998). What they found is that a positive relationship exists between changes in executive compensation and the changes in firm size for the acquiring firm. However this positive relation was not found for non-acquiring companies. Khorana and Zenner (1998) hereby implicate that the firm size executive compensation sensitivity only exists when the company is an acquiring company. They also find a positive relationship between the acquisition and increasing cash and total compensation. According to the researchers the implications of these finding are that acquiring executives have an expectation that a larger firm size will result in an increase in their compensation. This result can be an incentive for executives to engage in an acquisition.

Khorana and Zenner (1998) also investigated whether the sales and stock returns after an acquisition were positive or negative. They find that the sales and stock returns are negative. These negative results have a significant impact on the executive compensation as well. This in turn results in a decline of the acquisition effect on the executive compensation.

Interesting to note is that they only find this positive relationship between compensation and firm size when the acquiring firm experiences a significant increase in shareholder wealth after the acquisition (Khorana & Zenner, 1998). This in contrast of Avery et al. (1998) who find that the effect on shareholder wealth (positive or negative) does not have any influence on the compensation after an acquisition.

Bliss and Rosen (2001) examine whether the existing literature on the relationship between executive compensation and firm size also applies to growth due to a bank merger. In this research on executive compensation and bank mergers they indeed found that executive compensation increases after a bank merger even if the stock prices decline after an acquisition announcement. In the research Bliss and Rosen differentiate between normal firm size growth and firm size growth through acquisitions and they find that there is no difference in the executive compensation. So they state that mergers can be seen as an easy and quick way to enlarge the firm and to increase executive compensation.

According to Bliss and Rosen (2001) the implication of this finding is that executives have incentives for engaging in a merger without taking notice of the effect it has on shareholder value.

Another research on firm size and CEO acquisition inserts the role of monitoring into the model. In this research Wright et al. (2002) examine whether external monitors (identified as security analysts, independent outside board members and institutional investors) alter the reason for executive compensation. What they find is that CEO compensation is effected by increasing returns if there is significant monitoring. If there is less monitoring the firm size growth is the determinant for CEO compensation. The implication of this result is that a well designed active external monitoring device can help decrease the agency costs. Only if the returns are increasing the CEO compensation is also increasing. (Wright, Kroll, & Elenkov, 2002) As we will see in the coming section, another research also concludes that stock returns can be positively linked to CEO compensation.

The final study discussed in this section is the study of Schmidt and Fowler (1990). They take the relationship between firm size and executive compensation as a known fact and control for the size effect in their research. They first examine whether executives experience an increase in their compensation (adjusted for the inflation). The second compensation related investigation they conduct is whether there exists a relationship between executive compensation and the financial performance of the company after an acquisition. The main findings of this study state that first the post-financial performance of the acquiring firm is not positive. The implication they make is that an acquisition is not a profitable way for increasing shareholder value (Schmidt & Fowler, 1990). The second result is that there is no statistical significant evidence that the executive compensation is related to firm performance of the acquiring firm. This result holds when controlled for firm size. Non-acquiring firms do have a relationship between executive compensation and firm performance. According to Schmidt and Fowler this implicates that acquiring executive increases in compensation depend on firm size more than it depends on financial post-acquisition performance.

4.4 Acquiring executives and different forms of compensation

In the bank merger research, discussed in the first paragraph, the writers found that the form of compensation influences whether or not an acquisition was likely to be executed. CEOs are motivated by the form of the contract they have on their compensation. CEOs of banks have fewer incentives for engaging in acquisitions if they are compensated with relatively more stock then cash. As we've seen earlier, most acquisition announcements have negative stock options returns, so if CEOs are compensated with options, they will be worse off (Bliss & Rosen, 2001).

Other research suggests that acquisitions by CEOs who receive equity based compensation (EBC) result in increasing stock prices after the announcement date of the acquisition (Datta, Iskandar-Datta, & Raman, 2001). This research is contradictory to most prior research which stated that stock returns decrease after the announcement of an acquisition. This could implicate that EBC is a way of aligning CEO compensation with shareholder value maximization. As we've seen in the previous paragraph, also monitoring can lead to a positive relationship between stock returns and CEO compensation.

Finally another research has been done on whether CEO compensation after an acquisition effects the decisions on the acquisition with regard to new CEO compensations plans like stock option portfolios. They find that CEO compensation becomes insensitive for decreasing stock performance when it comes down to an acquisition. On the other hand positive stock performance after an acquisition does increase the CEO compensation even more. This implicates that wealth increases for CEOs even if shareholders are worse off due to the acquisition (Harford & Li, 2007).

If we combine the evidence suggested by the research discussed, we can make an assumption that EBC and monitoring can make a contribution to better align CEO incentives with shareholder incentives. Both cash and option payments can increase the wealth of CEOs without increasing the wealth of shareholders, so the agency costs only increase after an acquisition.

4.5 Executive compensation and deal size of acquisition

In their paper "CEO compensation and incentives: Evidence from M&A bonuses" Grinstein and Hribar (2003) examine CEO compensation after completing an acquisition deal. They also examine whether the CEO compensation is granted in order to align CEO incentives with shareholder incentives, as related to the agency theory, or if managerial power affects CEO compensation after an acquisition. In order to answer these questions Grinstein and Hribar use a sample of large U.S. acquisition (transaction > 1 billion $) companies. They use two different models test for their hypotheses. The first model examines whether M&A bonuses indeed represent additional CEO compensation. The regression performed in this research confirms that CEO compensation on closing the deal on an acquisition is in fact in the form of extra bonuses (Grinstein & Hribar, 2004).

The second model helps explain if and to what extend effort, skill and managerial power influences the level of CEO bonus after closing the deal. The result of the regression of this model is that measures of effort and skill do not explain the CEO bonus variations. Deal size is related to managerial power and Grinstein and Hribar (2004) do find some evidence for a positive relationship between deal size and the size of the bonus after an M&A deal. As we have seen earlier in the thesis managerial power can been seen as a factor influencing executive compensation. Implications of this study are correspondent with the managerial power approach. If CEOs can affect the decisions of the board on CEO compensation, CEO can choose acquisition deals that maximize their own value and not the value of the shareholders (Grinstein & Hribar, 2004).

Another research on deal size of an acquisition and executive compensation is the one of Coakley and Ilipoulou (2006). In this UK research 73 bidding companies from the UK and 27 bidding companies from the US (UK targets) are examined from 1998-2002. Also Coakley and Ilipoulou distinguish between the agency theory approach and the managerial power approach. If the agency approach hold, they expect to find that executive compensation only rewards those executives whereby the M&A deal contributes to an increase in shareholder value. If the managerial power approach holds the executives are driven by personal incentives and M&A deals are used for personal gain purposes. One of these incentives can be empire building.

In their research Coakley and Ilipoulou (2006) take the assumption of Grinstein and Hribar (2003) that deal size is a measure of deal complexity as a given. The outcome of their research is that executive compensation is higher when the deal size of the acquisition also is higher so, in this research also the managerial power approach holds (Coakley & Iliopoulou, 2006).

4.6   Summary and hypotheses

In this chapter the empirical literature on executive compensation after an acquisition was discussed. First the examined literature tried to find out what the incentives are for executives to engage in an acquisition. According to Avery et al (1998) executives do not engage in an acquisition because it increases their compensation. Other researches, like Zenner and Kroll et al, they do find that increase in compensation is followed by an acquisition and this may be a reason for executives to engage in an acquisition. The first set of hypotheses for this paper therefore relate to the effect of an acquisition on executive compensation. In general, researchers find that executive compensation is positively related to acquisition activity. Therefore the hypotheses regarding this relationship are as follows:

(H1):   Executive cash based compensation increases after an acquisition.

(H2):   Executive cash based compensation increases more after an acquisition than compensation increases when no acquisition is executed

Several researchers (Avery et al, Bliss and Rosen) found that executive compensation is positively related to acquisition activity even if there is a negative change in firm performance after an acquisition. Khorana and Zenner found that executive compensation only is positively related to acquisition activity if there is an increase in shareholder wealth after an acquisition. Because a vast majority of the researchers found that executive compensation is positively related to acquisition activity even if firm performance is not increasing due to an acquisition this insight is expected for this research also. Therefore the hypothesis is:

(H3):   Changes in compensation after an acquisition are independent of firm performance after an acquisition

Firm size is extensively examined and found positive related to executive compensation, also in combination with acquisition activity (e.g. Bliss and Rosen, Khorana and Zenner). In this paper this positive relationship is also expected for the sample used. So the hypothesis is:

(H4):   Firm size is positively related to acquiring executive compensation

Datta et al. state that the more equity holdings (stock ownership) the executive has, the less changes in executive compensation occurs after an acquisition. Equity holdings align the incentives of executives with the incentives of shareholders. The hypothesis which will be tested here is therefore:

(H5):   The executive's equity holdings are negatively related to changes in compensation of the acquiring executive.

The next hypothesis is a hypothesis about compensation risk. The higher the equity based compensation the higher the risk for the executive. The higher the risk for the executive the higher the risk premium the executive demands. In this model a positive relationship between compensation risk and executive compensation after an acquisition is expected. If compensation risk increases after an acquisition the risk premium is also expected to increase. Therefore the hypothesis for compensation risk is:

(H6): Compensation risk is positively related to changes in acquiring executive compensation.

Another risk is firm risk, which is also a factor concerning executive compensation. When firm risk is large the compensation based on performance is also exposed to more risk. To compensate for that risk, again, executives will demand a higher risk premium in this case compensation. The hypothesis for this firm risk is:

(H7):   Firm risk is positively related to changes in acquiring executive compensation.

Grinstein and Hribar and Coackley and Ilipoulou examined the relation between the deal size and the changes in executive compensation. Both researches state that deal size is an explanation for the magnitude of the change in acquiring executive compensation. Hypothesis six is therefore:

(H8):   The deal size of an acquisition is positively related to the change in acquiring executive compensation

Finally some smaller factors are mentioned that influence executive compensation. In order to control for those factors these will also be taken into account in this research. The hypotheses regarding these control factors are:

(H9):   Executives age is negatively related to acquisition activities
(H10): The tenure of the executive is negatively related to acquisition activity
(H11): The education of the acquiring executive is positively related to the magnitude of the changes in executive compensation.

These hypotheses will be examined in this research. The design of the research and the further elaboration on the hypotheses and the methodology will be discussed in the next chapter.

5 Research design

5.1 Introduction

In this chapter the research design is discussed. The second section explains the design used in this research, the sample selection is discussed, and an elaboration on the model used in this research is made. Further the variables of the model used will be explained in more detail. In the subsequent sections the reliability, the validity, and the robustness checks of the research are discussed. Finally an overview is given of the research design.

5.2 Model

5.2.1 Design

In this research two sets of companies will be taken into account. The first set of companies that will be subjected to the research are the companies that engaged in a large acquisition of at least 10 million. The other group of companies is chosen in order to compare the possible compensation change after an acquisition with the possible compensation change when no major acquisition has taken place. Two benchmarks will be made and compared to the acquisition group. These will be a benchmark where the compensation of the acquiring company will be compared to its non acquiring sector peers and the other benchmark will compare the compensation change of the acquiring companies to the non-acquiring peers in the same year.

In the model the changes in variables is used because the ultimate question is whether the changes in compensation in acquiring companies differs from the changes in compensation for non-acquiring companies. The changes in the factors that explain compensation are used to explain the changes in compensation other than normal market forces. The changes in variables will be the difference between the average of the value of the variable one year before the acquisition and the year of the acquisition and the average of the value of the variable the year of the acquisition and the year after the acquisition. The acquisitions used for the research are acquisition undertaken from 2000 till 2008. In this way enough information before and after the acquisition can be found. So each acquisition will be examined over a three year time span.

For the compensation of the executive the two mostly paid executives are taken into account. It is assumed that the three highest paid executives also have the most influence in the decisions of the company. In this case whether or not to engage in an acquisition (Khorana & Zenner, 1998). In this research the two highest paid executives are taken instead of the three highest paid executive because in the Netherlands a lot of times there are only two executives. If three had to be taken a lot of significant acquisitions could not have been taken into account, leading to a small sample.

5.2.2 Sample

The sample of acquisitions is selected from three databases. The acquisitions executed in one year have to add up to 10 million euro or more. The acquisitions also have to be full acquisitions or at least majority acquisitions. The first result was a list of 933 acquisitions of Dutch companies between 1999 and 2009 (last acquisition year 2008). For each acquisition year the total acquisitions executed per company were added up. This resulted in a list of 369 usable acquisitions. From the database ThompsonOneBanker ROE and firm risk were extracted and this resulted in a decrease of the number of usable acquisitions due to missing data. Furthermore some companies were no longer active and also had to be deleted from the sample. This resulted in a usable list of 221 acquisitions.

The final search for data was by hand collecting data on cash compensation (variable as well as fixed), age, tenure, and number of employees. The major part of the 221 acquisitions that could have been used nevertheless was dismissed because of the lack of information on compensation. Before 2005 no mandatory disclosure on compensation per executive had to be given. Ultimately the list of acquisitions totalled 108 acquisitions with 216 executives under examination. A list of the acquisitions used in this thesis is recorded in appendix I, table 5a and 5b.

5.2.3 Benchmark

In the model two benchmarks are used. One benchmark is a benchmark of industry peers who did not engage in an acquisition in the year of the examined acquiring company. The other benchmark compares the acquiring compensation change with companies who did not engage in an acquisition during that year regardless of the industry the company is in. The industries are divided in a way in which the benchmark could give a fair representation of the compensation change over the three year period. Two sectors had to be combined due to the lack of sufficient data. The sectors used are:

1000: Basic Materials (including oil and gas 0001)
2000: Industrials
3000: Consumer Goods
4000: Health Care
5000: Consumer Services
7000: Utilities
8000: Financials
9000: Telecommunications and ICT (6000)

5.2.4 Model interpretation[1]

The model used in this research will consist of one outcome variable and eleven predictive variables. The basic model used will consist of the sector benchmark and revenue as the firm size measure. In the analyses the specific models will be further discussed and explained. The used model consists of the following variables:

COMSEC: Δ COMP[2] - Δ FINDUS[3]

DEAL-S: Deal size in year t

Δ CRISK: Relative change in compensation risk $\{[(CRt + CRt+1)/2] - [(CRt-1+CRt)/2)]/ [(CRt-1+CRt)/2]\}$.

FRISK: Beta per firm

Δ FSIZE1-3:   Relative change in firm size measured by (1) revenue, (2) equity, and (3) the number of employees $\{[(FSt + FSt+1)/2] - [(FSt-1+FSt)/2)]/ [(FSt-1+FSt)/2]\}$.

Δ ROE: Relative change in present return on equity $\{[(PFt + PFt+1)/2] - [(PFt-1+PFt)/2)]/ [(PFt-1+PFt)/2]\}$.

ACQBFR: Acquisition executed the year before the measured acquisition.

ACQAFT: Acquisition executed the year after the measured acquisition.

EQHLD: Equity holdings of the executives in year t.

EXAGE: Age of executive in year t.

EXTEN: Tenure of the executive in year t.

EDUCT: Education level of the executive in year t.

$$COMSEC_{it} = \alpha_{it} + \beta_1 DEAL\text{-}S + \beta_2 \Delta CRISK + \beta_3 FRISK + \beta_4 \Delta FSIZE + \beta_5 \Delta ROE + \beta_6 ACQBFR + \beta_6 ACQAFT + \beta_7 EQHLD + \beta_8 EXAGE + \beta_9 EXTEN + \beta_{10} EDUCT + \varepsilon_{it}$$

α_{it} = a constant term

ε_{it} = residual term

$_{it}$ is used to identify the observation in period t.

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[1] Abbreviations used:

CRt: Compensation Risk in year t
FSt: Firm Risk in year t
PFt: Performance in year t
ACt: Cash compensation of the acquiring executives in year t
SCt: Sector compensation in year t
t: year of acquisition

[2] Δ COMP = Relative change in executive cash compensation $\{[(ACt + ACt+1)/2] - [(ACt-1+ACt)/2)]\}/ [(ACt-1+ACt)/2]$.

[3] Δ FINDUS = Benchmark of relative change in executive cash compensation for non acquiring industry peers $\{[(SCt + SCt+1)/2] - [(SCt-1+SCt)/2)]/ [(SCt-1+SCt)/2]\}$.

5.2.5 Variables interpretation

Δ COMP = Change in executive cash compensation

For this variable and fixed cash based compensation is used. The relative change in cash compensation will be calculated as relative change of the average of compensation in the year after the acquisition plus the compensation in the year of the acquisition compared to average of the compensation in the year before the acquisition and the year of the acquisition. Total cash compensation was abstracted from the annual reports of the acquiring companies. These reports were downloaded through the website of company.info.

Δ FINDUS = Firm industry benchmark

The firm industry specific benchmark will be used to compare the compensation change of the acquiring companies to the compensation change of non-acquiring companies for that specific industry. In this way the industry specific characteristics of compensation change will be controlled for (Wright et al., 2002). First a list was made of all the companies in a specific sector who did not engage in an acquisition in a particular year. Second, cash compensation in year t-1, t, and t+1 was collected. Next, the relative compensation change per company was calculated and finally the benchmark for that sector, for that particular year, was composed. In appendix II a summary of the companies used per benchmark can be found in tables 6-12.

Δ ACQYR= Acquisition year Benchmark

The year specific benchmark will be used to compare the compensation change of the acquiring companies with the change in compensation for the year in which the acquisition took place. In this way the year specific characteristics were accounted for. In the same way as the industry benchmark is compiled the year benchmark is compiled too.

COMSEC = Δ COMP - Δ FINDUS

COMSEC represents the outcome variable. A positive outcome would represent a higher compensation change for acquiring companies compared to the industry and a negative outcome would indicate a lower compensation change after an acquisition than the non-acquiring industry average.

COMYR = Δ COMP - Δ ACQYR

COMYR represents the second outcome variable. Again a positive (negative) outcome would describe a higher (lower) increase in cash based compensation after an acquisition than the increase in that particular year was for non-acquiring companies. A constant of zero would mean that the change in compensation of the acquiring company is equal to the overall change in compensation of the non-acquiring companies in that same year.

DEALS = Deal Size

The deal size of the acquisition represents the euro amount the acquiring company had to pay for the acquired company. Only acquisitions with a deal size over 10 million Euros were used.

Δ CRISK = Change in compensation risk

Compensation risk is defined as the risk that an executive has when his compensation is based on firm outcomes. (Gray & Cannella Jr., 1997). When the compensation risk of the executive is high the executive has an incentive to align his preferences with the preferences of the shareholders. Compensation risk is measured as the ratio of incentive compensation (equity based cash compensation) to total cash based compensation. (Gray & Cannella Jr., 1997). To determine the change in the compensation risk the same method is used as before. The relative change will be computed between the compensation risk in year t-1 plus the compensation risk in year t, and the average of the compensation risk in year t and the compensation risk in year t+1. Compensation risk will be computed by hand and the needed data will be hand collected from the annual reports of the acquiring companies.

FRISK = Firm risk

If the compensation of the executive is based on firm outcome the risk on firm outcomes also provides a risk for the executives. Examples of firm outcomes are profitability and stock price deviations. Firm risk is measured with the Capital Asset pricing Model. The measure used is the measure of systematic risk, the risk that is appropriate for the entire market, namely Beta (Gray & Cannella Jr., 1997). Beta is derived from the ThompsonOneBanker database.

Δ FSIZE I - III= Change in firm size Revenue, equity and number of employees

The change in firm size will be computed in three ways. Several measure of firm size can be used. In order to give a robust research three different measures will be used. First the change in the sales (1) is used in the model. Thereafter the change in equity (2) is added and finally the firm size is based on the number of employees(3). Revenue and equity data will be derived from the ThompsonOneBanker database and employee number data will be hand collected from the annual report from the acquiring companies.

Δ ROEp = Change in present return on equity

The measure of firm performance is the return on equity for the present year. This measurement is relevant when executive compensation is directly related to the present year's performance (Coakley & Iliopoulou, 2006). Firm performance will be used as a proxy for shareholder wealth because an increase in firm performance results in an increase in shareholder wealth. This measure can also be derived from the ThompsonOneBanker database. The same method of computing the change is used as before.

ACQBFR = Acquisition executed the year before the measured acquisition.
This variable is included in the model to control for the effect that a former acquisition still has on the compensation of the examined acquisition. The form of the variable will be a dummy variable in which a "0" will mean that in the year prior to the examined acquisition year no acquisition has taken place. A "1" consequently means that an acquisition has taken place in the year prior to the examined acquisition year. The data will be derived from the acquisition databases.

ACQAFT = Acquisition executed the year after the measured acquisition.
This variable can be interpreted in the same way as the previous variable. If a company engaged in another acquisition in the year after the examined acquisition year the variable has a value of "1". If this is not the case the value of the variable is "0".

EQHLD = Equity holdings of the executive at the moment of the acquisition
This variable is determined by the percentage of stock held by executives related to the total stock ownership. This variable will be hand collected from the annual reports of the acquiring companies.

EXAGE = Age of executive on the moment of acquisition
The age of the executive at the moment of the completion of the acquisition. This will be hand collected from the annual reports of the specific companies (Gray & Cannella Jr., 1997). This variable is inserted in the research because former research stated that the age of the executive determines whether or not the executive is likely to engage in an acquisition.

EXTEN = Tenure of the executive on the moment of the acquisition
This variable is presented as the number of years the executive is in function at the moment of the completion of the acquisition. This variable is included because the more years in a specific function, the more influence the executive has on his own compensation. (Wright et al., 2002). The number of years the executive works in a specific function is derived from the annual reports and the VEB website.

EDUCT = Education level of the executive
This variable is inserted to control for the differences in educational level between the executives and the impact that could have on the compensation. This variable is a dummy variable. This variable is 1 when the executive got a higher education and a zero when otherwise. This variable was hand collected.

5.3 Reliability

The data collection process is elaborated on in section 5.2.2. The data needed is extracted from databases and annual reports. Extracting data from secondary resources has the advantage that the data collection process will be shortened which gives the researcher more time for the actual analysis of the study. The disadvantage is that data could be wrong or incomplete. This could undermine the reliability of the research. Hand collecting the date form annual reports has the disadvantage that it takes a lot of time and the advantage that the collection is done by the researcher who has the incentive to collect the data in a complete and right way.

In this research several databases were used to diminish the possibility for errors in the data. The databases are well known, often used databases. The following websites were used extensively for collecting the data:
For data on acquisitions:
- Marketline
- Zephyr
- ThompsonOneBanker

For data on other variables than acquisition data:
- ThompsonOneBanker
- Annual Reports via www.company.info for the hand collected data
- VEB website
- DataStream for Risk data (beta).

5.4 Validity

In testing the validity of the research four validity measures are used according to Birnberg (1990). The main classification is the difference between external and internal validity. External validity is heralded by construct validity and internal validity is heralded by statistical conclusion validity (Birnberg, Shields, & Young, 1990). In this section all four (sub) classifications will be discussed concerning the model used in this research.

5.4.1 Construct validity
A construct is a concept that cannot be observed directly and therefore has to be operationalized (Babbie, 2007). Construct validity concerns whether the operationalization of the concept is indeed a good measure of that concept. In the model used in this thesis the concept of firm size is measured in three different ways. The validity can be measured by assessing whether all three measures lead to the same results (Birnberg et al., 1990).

5.4.2 External Validity

This validity classification refers to whether the results of the study can be generalized in different situations (Birnberg et al., 1990). In order to enlarge the external validity the sample size as well as the variation in the sample play an important role. The sample size of this thesis seems to be large enough to generalize the results. The variation in the sample is reached through the use of large acquisitions and small acquisitions.

5.4.3 Statistical Conclusion Validity

This validity type concerns the covariance between dependent and independent variables in a research (Birnberg et al., 1990). The model used in this research includes several control variables, like executive's age and deal size. These control variables have a positive influence on the statistical conclusion validity. Still other influences can have an effect on compensation in an acquisition situation as well as in a non-acquiring situation.

5.4.4 Internal Validity

Internal validity can be determined by assessing whether changes in the independent variables cause changes in the dependent variable (Birnberg et al., 1990). The literature study already showed that compensation can be influenced by many factors, including firm size. It is therefore hard to tell whether deal size is the only (independent) variable that influences compensation after an acquisition. The model is based on the idea that the market itself also influences compensation. The model is set to determine whether an acquisition had an extra impact on compensation besides the 'normal' market influences.

5.5 Robustness checks

In order to increase the validity and reliability of the research some robustness checks have been included. The first is the extra benchmark. In order to control for effects within the sector of the acquiring company a benchmark of sector companies is composed. However a benchmark of solely one sector does not necessarily tell everything about the economic environment despite the sector. Therefore a second benchmark is used. The year benchmark will help to take non-sector specific characteristics in a particular year into account. This will help to increase the validity and the reliability of the research.

The second robustness check inserted is related to the firm size measure. There are three general used measures for firm size and for completeness all three will be used in this research. Again this will increase the validity and the reliability of the results if they are replicated with all three measures of firm size.

Finally an extra check is created by including an extra variable in the basic model. This dummy variable investigates whether the model is influenced if we distinguish between whether the executive is a CEO or another executive. With this extra check the reliability of the model can be enhanced if this variable turns out to be a significant predictive variable.

5.6 Summary and conclusions

Chapter five describes the research design of this thesis in great detail. The design establishes a starting point for examining whether a relationship exists between acquisition activity and executive compensation. The sample consists of 108 acquisitions. Of each acquisition the top two executive compensation pay outs are taken, so in total 216 observations have been investigated. The validity and the reliability are discussed. In order to test the sensitivity of the research several robustness checks were designed. The next chapter will present the empirical results of the research conducted.

6 Empirical results and analysis

6.1 Introduction

This chapter will discuss the analysis of the data. The dataset is build from the different variables discussed in the previous section. With the use of SPSS a descriptive analysis of the data and a multiple regression analysis of the data was carried out. The descriptive results and analysis from the statistics of the dataset are presented in section 6.2, and the results and analysis from the multiple regression is described in section 6.3.

6.2 Descriptive results and analysis

In table 2 on this page, the descriptive results are presented. The highlights are summed up in this section. The dataset used is constructed from 108 acquisitions executed in the Netherlands in the period from 2000 till 2008. Of each acquisition the compensation of the two highest paid executives are taken into account. This results in a dataset of 216 compensation change outcomes as a result of 108 acquisitions. The 108 acquisitions are performed by 47 different listed companies in the Netherlands (N.V.'s).

Variable	Mean	Median	Minimum	Maximum
Compensation growth (%)	6,66	7,26	-53,87	74,73
Compensation-Sector_Benchmark (%)	0,41	-0,44	-49	88
Compensation-Year_Benchmark (%)	-0,81	-1,51	-58	72
Compensation risk (%)	30,98	30,00	0,00	87,20
Age (year)	52,25	53	36	66
Tenure (year)	4,79	4	0	22
Equity holdings in acq. year (%)	0,99	0,0014	0,00	38,42
Revenue (% firm size 1)	9,50	7,37	-41,80	103,25
Equity (% firm size 2)	9,15	5,18	-43,00	96,00
#employees (% firm size 3)	9,56	6,81	-14,00	74,00
Performance %	-15,06	-7,13	-31,5	3,18
Compensation in acquisition year €	848642,80	671619,5	180000	4692909
Deal size (million €)	649,76	173,71	12,00	10855,63

Table 2: Descriptive statistic results

The acquisition data were collected from year 2000 till year 2008. In this sample most acquisitions took place in 2007 (25 acquisitions) and the least in year 2000 and 2001 (both 3 acquisitions). The average (median) deal size was €649.760.000 (€173.710.000)

In the sample period 2000-2008 the average (median) total cash compensation in an acquisition year for the selected companies was approximately €848.643 (€670.000). The largest compensation growth after an acquisition was 74,7% and the largest decline after an acquisition was 53,87%. On average (median) a 6,7% (7,3%) growth from total cash based payment was detected in the sample period from the average of year t-1 and year t, and the average of year t and year t+1. Although compensation decreases in some instances after an acquisition, these declines seem to follow the sector benchmark.

A one-sample t-test is used in order to define whether the positive average outcome is significantly different from zero. The outcome of this t-test is indeed significant (t = 5,895, p = 0,000). The average change is a positive change, so this lead to an acceptance of hypothesis one (H1) which stated that: "*Executive cash based compensation increases after an acquisition.*"

After subtraction of the industry benchmark the highest positive deviation between total cash compensation change after an acquisition and total cash compensation change without an acquisition was 88% and the highest negative deviation was minus 48%. The average (median) deviation was 0,41% (minus 0,44%). So, compensation after an acquisition increases slightly more than compensation of the benchmark does in the same sector in the same year for the basic model.

In order to investigate whether this result is significant an independent two samples test is executed. This test results in an insignificant outcome (t = 0,326, p = 0,745). This indicates that compensation change after an acquisition is not significantly different compared to the sector benchmark. Hypothesis two (H2), *Executive cash based compensation increases more after an acquisition than compensation increases when no acquisition is executed,* is therefore rejected.

With the year benchmark the average (median) deviation was minus 0,81% (minus 1,51) and within this benchmark the highest positive deviation was 72% and the highest negative deviation was minus 58%. The independent two sample test of the year benchmark also entails an insignificant outcome (t = -0,670, p = 0,504). So, the results of the year benchmark confirms the results from the sector benchmark. Because the year benchmark is used to check the robustness of the basic model, this result indicates that the robustness of the basic model is valid.

In the acquisition year the average (median) compensation risk (variable cash bonus as a percentage of the total cash bonus) was 31% (30%). All executives received fixed cash compensation and a total of 11 executives (5,1%) did not receive any variable compensation in the acquisition year.

The average (median) age of the executives was 52,25 (53) years in the year of the acquisition. The oldest executive was 66 at the time of the acquisition and the youngest was 36. The tenure of the executives was 4,79 (4) years on average (median). The executive with the longest tenure served the company 22 years in the same function and a total of 9 executives were in their function for the first year at the moment of the acquisition. The executives did have on average approximately 0,14% equity holdings in the acquisition company examined.

Firm size is measured through revenue, the firm's equity holdings and through the number of employees. The average (median) revenue increase in the acquisition period is 9,5% (7,4%). The largest increase was an increase of 103,3% and the largest decrease in revenue was a decrease of 41,8%. The equity holding increased 9,15% (5,18%)on average (median) with the largest growth of 96% and the largest shrinkage of 6,8%. The average (median) growth of the number of employees was 9,56% (6,81%) with the highest growth of employees of 74% and the largest decline in number of employees of 14%.

Finally the company performance was measured with the company's return on equity (ROE) and within the acquisitions years the average (median) change in ROE was minus 15, 06% (minus 7,13%). The highest increase in ROE was 3,18% and the highest decrease was minus 31,5%.

6.3   Regression results and analysis

In this section the results and the analysis of the multiple regressions performed are discussed. The results presented in this section are the regression results of the dataset with the sector benchmark and revenue as the measure for firm size. The section is divided in the results for the overall model and the results per predictive variable. First, the overall results of the multiple regression analysis are presented in table 3.

Variable	β (standardized coefficients)	t- value	Significance (p-value)
Constant*	0,363	3,831	0,000
Deal size***	-0,104	-1,816	0,071
Compensation Risk*	0,543	9,568	0,000
Firm Risk**	-0,124	-2,214	0,028
Firm Size (revenue)**	0,115	2,079	0,039
Performance (ROE)	0,023	0,415	0,678
Acquisition before	-0,031	-0,551	0,582
Acquisition after	0,067	1,168	0,244
Equity Holdings	-0,025	-0,433	0,665
Age*	-0,216	-3,555	0,000
Tenure	0,075	1,226	0,221
Education	-0,031	-0,519	0,605
R^2	0,415	* $p<0,01$	
F-ratio	13,133	** $p<0,05$	
Significance	0,000	*** $p<0,10$	

Table 3: Model with sector benchmark and firm size_revenue

6.3.1 Overall Model

Although the explanatory power (F-ratio: 13,133) is relatively low, the overall basic model with is significant (p=0.000). The total combination of independent variables account for 41,5% (R^2) of the total variability in compensation change measured against the benchmark.

6.3.2 Results and analysis per predictive variable

- Deal size : Deal size as an explanatory variable is significant ($\beta = -0,104$, $p = 0,071$) for the basic model. Deal size is negatively related to compensation after an acquisition. So a higher (lower) deal size results in a lower (higher) change in compensation.
  Hypothesis seven (H8), predicted that deal size would be positively related to compensation after an acquisition. The results clearly state differently, so hypothesis eight (H8), *the deal size of an acquisition is positively related to the change in acquiring executive compensation, t*herefore has to be rejected.

- Compensation risk: Compensation risk (variable cash compensation as a ratio of total cash compensation) is significant ($\beta = 0,543$, p=0.000). The relationship is a positive one which means that the higher (lower) the compensation risk, the higher change in compensation as a measure against the benchmark. So the higher the variable part of the cash compensation the higher the change in compensation after an acquisition in relation to the change in compensation without an acquisition. The hypothesis on compensation risk (H6) stated: *Compensation risk is positively related to changes in acquiring executive compensation.* The results indicate that there is indeed a positive significant relationship, so this hypothesis is accepted.

- Firm Risk: Firm risk is a significant ($\beta = -0,124$, $p = 0,028$) measure for the variability in the difference between the compensation change after an acquisition. The relationship found for the sector benchmark is a negative one. This indicates that the higher (lower) the firm risk, the lower (higher) the change in compensation as a measure against the benchmark is. This result surprisingly contradicts the hypothesis in the way that the hypothesis predicted a positive relationship. Hypothesis seven (H7), *Firm risk is positively related to changes in acquiring executive compensation,* will therefore be rejected.

- Firm size - Revenue: Firm size revenue is significant in the sector benchmark case ($\beta = 0,115$, $p = 0,028$). So, the increase in firm size due to the acquisition is positively related to the change in compensation after an acquisition. This indicates that a positive (negative) change in firm size is an explanation of a positive (negative) change in compensation after an acquisition. Hypothesis four (H4) states: *Firm size is positively related to acquiring executive compensation.* This hypothesis can be accepted for this sample.

- Performance ROE: Performance does not have any significant explanatory power ($\beta = 0,023$, $p = 0,678$) for the change in compensation after an acquisition. This indicates very clear that performance does not have any explanatory power in the model. So the changes in compensation observed in this research are independent of the changes in performance of the firms in this sample due to the acquisition. Hypothesis 3 (H3), *Changes in compensation after an acquisition are independent of firm performance after an acquisition,* is therefore accepted.

- Acquisition before/after measurement year: No significant effect (before: $\beta = -0,031$, $p = 0,582$; after: $\beta = 0,067$, $p = 0,244$) was found for the change in compensation after an acquisition due to an acquisition executed in the year before or the year after the measured acquisition.

- Equity Holdings: The percentage of equity holding is not a significant predictor ($\beta = -0,025$, $p = 0,666$) of compensation change after an acquisition. Therefore the hypothesis (H5), *the executive's equity holdings are negatively related to changes in compensation of the acquiring executive,* has to be rejected. One reason for this rejection is that a lot of executives in this sample do not hold any equity in the company. Therefore the deviation in equity holdings is fairly small and cannot result in any explanatory power.

- Executive age: A significant negative relationship ($\beta = -0,216$, $p = 0,000$) exists between the age of the executive in the acquisition year and the compensation change due to an acquisition. This could indicate that the higher (lower) the age of the executive is, the lower (higher) the change in compensation. The hypothesis (H9) regarding the executive's age stated: *Executives age is negatively related to acquisition activities.* This hypothesis is therefore accepted for this sample. A possible explanation for this negative relationship could be that older executives realize better what the effect of their actions are in the society. They also have the interest of the company more in mind when they engage in an acquisition

- Executive Tenure: According to the regression analysis the tenure of the executive at the moment of the acquisition does not have any significant explanatory power for the compensation change after an acquisition ($\beta = 0,075$, $p = 0,221$). The hypothesis (H10), *the tenure of the executive is negatively related to acquisition activity,* has to be rejected. So, tenure of the executive does not have any explanatory power.

- Executive education: Education does not have any significant explanatory power in this model as well ($\hat{a} = -0,031$, $p = 0,605$). The hypothesis (H11) regarding education stated: *The education of the acquiring executive is positively related to the magnitude of the changes in executive compensation.* Again this hypothesis has to be rejected. In many cases the executive has a high education so their does not exists any explanatory power in this variable. A sample with more education differences might give different results.

6.4 Robustness Checks

In this section the exceptions from the other models examined are discussed. Also the two other measures of firm size are discussed. In appendix III the results of the robustness check models are summarized in 13-17.

- Overall Model: With firm size measured by revenue, the year benchmark model has greater explanatory power than the sector benchmark model. Though with the year benchmark model the confidence level is lower than in the sector benchmark model (R^2 = 0,436, F = 14.360, p = 0,000).

- Deal size: In the year benchmark model, with firm size measured by revenue, the relationship is also a negative relationship. Nevertheless in this model the significance is at a lower level (β = -0,113, p = 0,046)

- Firm Risk: In the case of the year benchmark, with revenue as the firm size measure, firm risk is not a significant measure for the variability (β = -0,090, p = 0,102).

- Acquisition before/after measurement year: In the year benchmark model two instances were found where there seems to be a significant positive relationship between an acquisition executed after the measured year and the compensation change in the measured year. These results were found when revenue (β = 0,112, p = 0,049) and the number of employees (β = 0,121, p = 0,034) were taken as a measure of firm size. In these instances the fact that the company engaged in an acquisition in the year after the measured year had an impact on compensation changes after the measured acquisition in this sample.

- Firmsize_equity: Revenue as a measure for firm size did have a significant influence on the compensation change after an acquisition. However in both benchmark cases (sector and year) equity as a measure for firm size is not a significant predictor of the compensation change (sector: β = 0,060, p = 0,289; Year: β = 0,095, p = 0,094).

- Firm size_employees: Just like revenue as a measure for firm size, number of employees as a measure of firm size is also a significant predictor in both benchmark models
(sector: β = 0,125, p = 0,033; year: β = 0,164, p = 0,004). The models indicate a positive relationship, which means that an increase in the number of employees also results in an extra increase in the compensation after an acquisition.

- Whether the executive is the CEO of the firm or another executive adds no explanatory power in the basic model (β = 0,015, p = 0,478). Also the overall model doesn't change significantly with regard to the model used (R^2 = 0,416, F = 12,052, p = 0,000).

6.5 Summary and conclusions

In this chapter the empirical results of the research are summarized. First an overview is given on the overall results of the regression model.

number	Hypothesis	Outcome
H1	Executive cash based compensation increases after an acquisition.	✓
H2	Executive cash based compensation increases more after an acquisition than compensation increases when no acquisition is executed	✗
H3	Changes in compensation after an acquisition are independent of firm performance after an acquisition	✓
H4	Firm size is positively related to acquiring executive compensation	✓
H5	The executive's equity holdings are negatively related to changes in compensation of the acquiring executive.	✗
H6	Compensation risk is positively related to changes in acquiring executive compensation.	✓
H7	Firm risk is positively related to changes in acquiring executive compensation	✗
H8	The deal size of an acquisition is positively related to the change in acquiring executive compensation	✗
H9	Executives age is negatively related to acquisition activities	✓
H10	The tenure of the executive is negatively related to acquisition activity	✗
H11	The education of the acquiring executive is positively related to the magnitude of the changes in executive compensation.	✗

Table 4: Overview of the outcome of the hypotheses
✓ = hypothesis is accepted
✗ = hypothesis is rejected

The research indicates that compensation does indeed increase after an acquisition. However compensation after an acquisition does not increase more relative to the benchmarks in this sample.

Three variables do have explanatory power in the models used. These variables are firm size, compensation risk, and executive's age. As anticipated, compensation changes are independent of firm performance in all instances.

Overall the model has a significant but not very high explanatory power for the outcome. Only 41,5 % of the outcome is explained by the explanatory variables in the model.

Except for the equity measure of firm size the robustness checks show the same outcomes as the basic model.

7   Conclusions

This research was conducted in order to answer the following research question.

Which factors influence executive compensation of acquiring firms
within the Netherlands and in what way?

In the previous chapter the factors that influence executive compensation were discussed. These factors, firm size, compensation risk, and the executive's age are three explanatory variables which influence the compensation change after an acquisition. Firm size and compensation risk relate to the outcome variable in a positive way and executive's age relates in a negative way with the outcome variable.

As earlier research also indicated, firm size explains a great deal of executive compensation change after an acquisition. Due to the fact that the firm grows after an acquisition the level of expertise has to become larger and the executive, most of the time, has to manage a more complex organization what can result in an increase of executive compensation.

Compensation risk also influences compensation after an acquisition in a positive way. The reason for this may be that executives demand a higher risk premium when the firm grows and the compensation risk increases. When compensation becomes more performance based the executives demand higher compensation because of the increased risk.

The age of the executive relates to the outcome variable negatively. This result states that the higher the executive's age, the lower the compensation after an acquisition is. This result can be explained on the basis of the notion that executives demand a more steady compensation as they reach their retirement age. Another reason for the executive's age to be negatively related to the outcome variable can be the fact that older executives may have more shareholdings in the company. This aligns the preferences of the executive with the preferences of the shareholders. Increasing compensation after an acquisition, independent of the performance after that acquisition, is not in the shareholders interest.

The outcomes of the research regarding the factors that influence executive compensation correspond in great deal with the research discussed earlier in this thesis. Avery et al (1998), for example, also found that there is almost no difference between compensation change after an acquisition and without an acquisition.

One possible reason for compensation not to increase significantly more relative to the benchmark is that, like in the UK study of Coakley and Ilipoulou, Dutch executives received little or no bonus for executing the acquisition. Grinstein and Hribar (2003) found that in the US, the increase in compensation after an acquisition mostly originates from a bonus received in relationship to the same acquisition.

Second, in a study on CEO compensation, Mertens et al (2007) found that there is a slightly positive relationship between short term bonuses and firm performance. Smidt and Fowler (1990) consequently found that a negative relationship exists between an acquisition and firm performance. So, if performance is positively related to compensation and an acquisition results in a performance decrease, compensation after an acquisition also decreases.

Another reason that executive compensation after an acquisition does not differ relative to the benchmark could be that in the Netherlands a lot of executive compensation is based on peers from the same industry. Most companies record five peers from their industry and use the averages as a benchmark for their own annual increase in (base) salary. This research did not investigate whether this is actually an important reason for the difference with other studies, but it seems to be a logical explanation.

Finally, the firms in this sample are much smaller than the firms in the samples from the US firms. This could indicate that there is less room for the firms to increase executive compensation after an acquisition. As Simon (1957) stated, the ability to pay is less in smaller companies, so even if an increase in executive compensation was desired, the disability to pay could prevent this.

Due to the fact that only 41% of the model is explained by the explanatory factors, more influences play a role in the outcome of the model. A limitation of this research is that these other factors that may have an influence cannot be detected, so the larger part of the variance in executive compensation remains unexplained.

Another limitation of this research is that the acquisitions are not equally divided over time. Most acquisitions in the sample took place in 2007. Least acquisitions in this sample are from 2000-2002. The fact that the economic environment changes and other factors become more or less important over time is a limitation of this study. In order to fully generalize the results of this research, the acquisitions should have been spread equally over the years. In the future more data will become available on acquisitions and compensation and this dispersion may be possible and give more explanatory power to the model.

As the results of this research indicate, a negative relationship emerges from this sample between deal size and executive compensation. In the study of Grinstein and Hribar (2003) they found that the magnitude of executive compensation is positively related to the deal size of the acquisition. An explanation for this different outcome can be that in this research deal size is measured in absolute terms. If deal size would have been measured in relative terms this might have given different results. Therefore this is a third limitation of the study and measuring deal size as a relative measure could be subject of further research.

Another limitation of this study is that the compensation data is hand collected. This was necessary because only CEO compensation data was available and not for all sample years. Hand collecting data diminishes the reproduction possibility of the research. In future years more data will become available and this would increase the replication possibility of the research.

The final limitation of this research is that the benchmark per industry is in some cases (sector 4000 for example) very small. A small sample gives no faithful image of reality. The small benchmarks might therefore influence the research in a negative way, diminishing the explanatory power of the research. Again as more data becomes available over time, this research could be executed again and give more reliable and valid results.

A final remark can be placed on the question whether executives engage in acquisition in order to receive a higher pay. As the results make clear, this question can be answered in a positive way, but with the remark that the compensation does not increase substantially more after an acquisition than compensation does without an acquisition. This research indicates that executives cannot use acquisitions in order to maximize their own wealth, without maximizing shareholders wealth.

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Appendix I: Acquisitions

Company	Acq. Year	Deal size	Company	Acq. Year	Deal size
Spyker Cars NV	2006	84,99	Heineken NV	2002	449,84
Stern Group NV	2008	701,25	Heineken NV	2003	799,40
TomTom NV	2008	2.501,12	Heineken NV	2004	228,14
Arcadis NV	2002	12,00	Heineken NV	2005	491,86
Randstad Holding NV	2006	66,98	Heineken NV	2008	195,37
Randstad Holding NV	2007	72,01	Nutreco Holding NV	2006	24,00
Randstad Holding NV	2008	3.495,94	Nutreco Holding NV	2007	353,59
TNT NV	2004	252,80	Nutreco Holding NV	2008	44,00
TNT NV	2007	245,05	Philips Electronics NV	2000	1724,06
USG People NV	2003	100,00	Philips Electronics NV	2002	28,53
USG People NV	2007	66,64	Philips Electronics NV	2003	400,47
USG People NV	2008	175,77	Philips Electronics NV	2007	1.257,84
Akzo Nobel NV	2006	215,28	Philips Electronics NV	2008	5.431,30
Akzo Nobel NV	2007	170,68	Royal Dutch/Shell Group	2000	23,77
Akzo Nobel NV	2008	10.855,63	Royal Dutch/Shell Group	2002	4362,78
CSM NV	2001	132,21	Royal Dutch/Shell Group	2005	1.567,92
CSM NV	2002	114,00	Royal Dutch/Shell Group	2007	5.583,78
CSM NV	2003	284,84	ABN Amro Holding NV	2006	1055,25
CSM NV	2007	214,86	BinckBank NV	2007	412,77
Koninklijke DSM NV	2003	1750,00	Delta Lloyd NV	2007	55,60
Koninklijke DSM NV	2005	1.099,67	Delta Lloyd NV	2008	153,15
Koninklijke DSM NV	2006	18,23	Eurocomm. Properties	2005	37,28
Koninklijke Ten Cate NV	2004	30,37	Eurocomm. Properties	2007	14,08
Koninklijke Ten Cate NV	2005	67,56	ING Groep NV	2001	1341,38
Koninklijke Ten Cate NV	2007	130,09	ING Groep NV	2003	300,42
Koninklijke KPN NV	2005	1.092,20	ING Groep NV	2004	258,21
Koninklijke KPN NV	2006	263,94	ING Groep NV	2005	254,21
Koninklijke KPN NV	2007	1.182,58	ING Groep NV	2008	7.588,63
Koninklijke KPN NV	2008	95,34	Rodamco Europe NV	2003	154,70
Imtech NV	2006	45,67	Rodamco Europe NV	2004	270,00
Imtech NV	2007	209,47	Rodamco Europe NV	2005	296,00
Imtech NV	2008	235,00	VastNed Retail NV	2006	113,57
Corio NV	2006	251,33	VastNed Retail NV	2007	100,01
Corio NV	2007	32,16	Draka Holding NV	2006	25,00
Corio NV	2008	378,36	Eriks Group NV	2006	204,84
Fugro NV	2003	158,96	TKH Group NV	2006	171,65
Fugro NV	2006	73,83	Telegraaf Media Groep	2006	272,73
Fugro NV	2007	25,66	Telegraaf Media Groep	2008	418,95
Fugro NV	2008	78,94	Wolters Kluwer NV	2001	101,45
Grontmij NV	2006	170,20	Wolters Kluwer NV	2002	64,00
Grontmij NV	2008	24,82	Wolters Kluwer NV	2006	315,68
Heijmans NV	2006	44,04	Crucell NV	2006	412,79
Heijmans NV	2007	100,05	Mediq	2007	36,32
Koninklijke Bam Groep NV	2002	709,60	Mediq	2008	90,21
Vastned Offices/Industrial NV	2007	14,50	Qiagen NV	2007	994,53
Wereldhave NV	2007	207,32	Qiagen NV	2008	832,05
Wereldhave NV	2008	110,03	Macintosh Retail Group	2006	135,02
Heineken NV	2000	876,92	Macintosh Retail Group	2008	156,86

Table 5a: Summary of researched Acquisitions

Company	Acq. Year	Deal size	Company	Acq. Year	Deal size
BE Semicond. Ind.	2008	77,57	Unit 4 NV	2006	29,45
ASML Holding NV	2007	205,55	Unit 4 NV	2008	214,86
Exact Holding NV	2007	36,56	Sligro Food Group NV	2002	35,00
OCE	2005	551,10	Sligro Food Group NV	2004	36,50
Ordina NV	2004	20,49	Sligro Food Group NV	2006	88,37
Ordina NV	2007	19,97			
Unit 4 NV	2004	15,70			

Table 5b: Summary of researched Acquisitions

Appendix II: Benchmark

2003	2005	2006	2007	2008
Akzo Nobel	Akzo Nobel	Crown van Gelder	Crown van Gelder	Crown van Gelder
Corus Group	Corus Group	Holland Colors	Holland Colors	Holland Colors
Crown van Gelder	Crown van Gelder	Univar	Koninklijke DSM	Koninklijke DSM
Royal Dutch Shell	Univar		Univar	New World Resources
Univar				

Table 6: Sector 1000, basic materials

2000	2001	2002	2003	2004	2005	2006	2007	2008
Accell	Accell	Accell	Accell	Accell	Accell	Accell	Accell	Accell
Antonov	Antonov	Antonov	Alanheri	Alanheri	Alanheri	Alanheri	Alanheri	Alanheri
AVEBE	Docdata	Docdata	A'dam comm	A'dam comm	A'dam comm	A'dam comm	A'dam comm	A'dam comm
CSM	Hunter Douglas	Grolsch	Antonov	Antonov	Antonov	Antonov	Antonov	Antonov
Docdata NV	Grolsch.	Porceleyne fles	Blydenstein	Blydenstein	Avebe	Avebe	Astarta	Astarta
Hunter Douglas	Wessanen	Wessanen	Docdata	CSM	CSM	CSM	Avebe	Avebe
Grolsch	Unilever	Mc Gregor	Grolsch	Docdata	Docdata	Docdata	Docdata	CSM
Mc Gregor		Nutreco	Porceleyne fles	Grolsch	Efes	Grolsch	Efes	Docdata
Nutreco		Unilever	Wessanen	Porceleyne fles	Grolsch	Porceleyne fles	Grolsch	Efes
Nutreco			Mc Gregor	Wessanen	Porceleyne fles	Wessanen	Porceleyne fles	Grolsch
			Nutreco NV	Mc Gregor	Wessanen	Mc Gregor	Wessanen	Porceleyne fles
			Unilever	Nutreco	Mc Gregor	Unilever	Mc Gregor	Wessanen
				Unilever	Unilever		Unilever	Mc Gregor
								Unilever

Table 7: Sector 3000, Consumer Goods

2006	2007	2008
AMT Holding	AMT Holding	AMT Holding
Fornix Biosciences	Crucell	Crucell
Galapagos	Cryo Save Group	Cryo Save Group
Octoplus	Fornix Biosciences	Fornix Biosciences
	Galapagos	Galapagos
	Octoplus	Octoplus
	Pharming Group	Pharming Group

Table 8: Sector 4000, Health Care

2000	2002	2003	2004	2005	2006	2007	2008
Arcadis NV	Airspray	Aalberts	Aalberts	Arcadis	Aalberts	Aalberts	Aalberts
Ballast Nedam	Boskalis	Airspray	Airspray	Ballast Nedam	Arcadis	Arcadis	Arcadis
Boskalis	Catalis	Arcadis	Arcadis	Bateman Engineering	Ballast Nedam	Ballast Nedam	Ballast Nedam
Catalis	DPA Group	Ballast Nedam	Ballast Nedam	Brunel Int.	Bateman Engineering	Batenburg Beheer	Brunel
DPA Group	Eads	Brunel Int.	Brunel Int.	Catalis	Brunel Int.	Brunel Int.	Catalis
Envipco	Envipco	Catalis	Catalis	DPA group	Catalis	Catalis	DPA group
Exendis	Eriks	DPA group	DPA group	Draka Holding	DPA group	DPA group	Envipco
Gamma Holding	Exendis	Draka Holding	Draka Holding	Envipco	Envipco	Envipco	Fiarstar Heavy Tr.
Grontmij	Gamma Holding	Eriks	Envipco	Eriks	Fiarstar Heavy Tr.	Eriks	Hagemeyer
Heijmans	Grontmij	Gamma Holding	Fugro	Gamma Holding	Gamma Holding	Fiarstar Heavy Tr.	Heijmans
Hitt NM	Hagemeyer	Grontmij	Gamma Holding	Grontmij	Hagemeyer	Gamma Holding	HES-beheer
IHC Caland	Heijmans	Hagemeyer	Grontmij	Hagemeyer	HES-Beheer	Grontmij	Hitt NM
Imtech	HES-beheer	Heijmans	Hagemeyer	Heijmans	Hitt NM	Hagemeyer	Hydratic
James Hardie	Hitt NM	HES-beheer	Heijmans	HES-beheer	Hydratic Industries	HES-Beheer	Innoconcepts
Kendrion	Hydratic Industries	Hitt NM	HES-beheer	Hitt NM	Ifco systems	Hitt NM	Bam Group
Econosto	Imtech	Hydratic Industries	Hitt NM	Hydratic Industries	Innoconcepts	Hydratic Industries	Ten Cate
Nedschroef	Innoconceps	Ifco systems	Hydratic Industries	Ifco systems	Kendrion	Innoconcepts	Vopak
Neways Electric	Kendrion	Imtech	Ifco systems	Innoconcepts	Bam group	Kendrion	Nedap
Punch Graphix	Econosto	Innoconceps	Imtech	Kendrion	Econosto	Bam group	Neways Electric
Roto Smeets	Nedschroef	Kendrion	Kendrion	Bam group	Ten Cate	Vopak	Punch Graphix
TKH	Ten Cate	Bam group	Bam group	Econosto	Vopak	Nedap	Reesink
USG People	Vopak	Econosto	Econosto	Nedschroef	Nedap	Neways Electric	Roto Smeets
Value 8	New Electric	Nedschroef	Nedschroef	Vopak	Neways Electric	Reesink	TMC
	Punch Graphix	Ten Cate	Vopak	Nedap	Punch Graphix	Roto Smeets	TKH
	Randstad Holding	Vopak	Nedap	Neways Electric	Reesink	Stork	Value8
	Reesink	Nedap	Neways Electric	Roto Smeets	Roto Smeets	TMC	Wavin
	Roto Smeets	Randstad Holding	Roto Smeets	SBM Offshore	SBM Offshore	Value8	
	SBM Offsh.	Roto Smeets	SBM Offsh.	Smit Int.	Smit Int.	Wavin	
	Smit Int.	SBM Offshore	Smit Int.	Stork	Stork		
	Stork	Smit Int.	Stork	TMC	TMC		
	TKH Group	Stork	TMC	TKH	USG People		
	TNT	TMC	TKH Group	USG People	Value 8		
	Value 8	TKH Group	Value8	Value 8	Wavin		
		TNT					
		Value 8					

Table 9: Sector 2000, Industrials

2001	2002	2004	2006	2007	2008
Air France-KLM	Air France-KLM	AFC Ajax NV	2Waytraffic NV	AD Pepper Media	AD Pepper Media
And Publishers	And Publishers	And Publishers	AD Pepper Media	AFC Ajax NV	AFC Ajax NV
Beter Bed	Beter Bed	Beter Bed	AFC Ajax NV	And Publishers	And Publishers
Wegener	Brill	ENDEMOL	And Publishers	Beter Bed	Beter Bed
Macintosh Retail	Wegener	Ahold	Beter Bed	Cinema City	Cinema City
Mediq	Macintosh Retail	Brill	Cinema City	Ahold	Ahold
Reed Elsevier	MCC Global	Wegener	Brill	Brill	Brill
Schuitema NV	Mediq NV	Macintosh Retail	Wegener	Wegener	Wegener
Sligro Food	Reed Elsevier	MCC Global	Mediq	Macintosh Retail	Reed Elsevier
Stern Groep	Schuitema	Mediq	Reed Elsevier	Schuitema	Schuitema
Telegraaf Media	Stern Groep NV	Reed Elsevier	Schuitema	Sligro Food	Sligro Food
	Super De Boer	Schuitema	Stern Groep	Stern Groep	Super De Boer
	Telegraaf Media	Stern Groep NV	Super De Boer	Super De Boer	Wolters Kluwer NV
		Super De Boer		Telegraaf Media	
		Telegraaf Media		Wolters Kluwer	
		Wolters Kluwer			

Table 10: Sector 5000, Consumer Services

2001	2003	2004	2005	2006	2007	2008
Athlon	Aegon	Aegon	Aegon	Aegon	Aegon	Aegon
AOT	Athlon	Athlon	Athlon	Athlon	Athlon	Athlon
Corio	Bever Holding	Bever Holding	Bever Holding	Bever Holding	Bever Holding	Bever Holding
Delta Lloyd DN	Binckbank NV	Binckbank NV	Binckbank NV	De Vries Robbe	Delta Lloyd DN	Binckbank
Delta Lloyd IF	Corio	Corio	De Vries Robbe	Delta Lloyd DN	Delta Lloyd IF	Delta Lloyd DN
DIM Vastgoed	Delta Lloyd DN	De Vries Robbe	Delta Lloyd DN	Delta Lloyd	Delta Lloyd J	Delta Lloyd IF
EMBA	Delta Lloyd IF	Delta Lloyd DN	Delta Lloyd Group	Delta Lloyd IF	DIM Vastgoed	DIM Vastgoed
Euro Comm. Properties	DIM Vastgoed	Delta Lloyd	Delta Lloyd IF	DIM Vastgoed	EMBA	Euro Comm. Properties
Nieuwe Steen	EMBA	Delta Lloyd IF	DIM Vastgoed	EMBA	GR Handelsg.	GR Handelsg.
Bank NL. Gemeenten	Euro Comm. Properties	DIM Vastgoed	EMBA	Euro Comm. Properties	KAS Bank NV	Kardan NV
Rodamco	FORTIS	EMBA	GR Handelsg.	GR Handelsg.	Nieuwe Steen	KAS Bank NV
SNS Reaal	GR Handelsg.	Euro Comm. Properties	Kardan NV	ING Groep NV	Bank NL. Gemeenten	Nieuwe Steen
Van Lanschot	Nieuwe Steen	Groothandelsge bouwen	KAS Bank NV	Kardan NV	Robeco NV	Bank NL. Gemeenten
Vastned Off	Bank NL. Gemeenten	Kardan NV	Nieuwe Steen	KAS Bank NV	Rodamco	Robeco NV
Vastned Rt	Robeco NV	KAS Bank NV	Bank NL. Gemeenten	Nieuwe Steen	Spazio Investment	Rodamco Eur
Wereld Have	SNS Reaal	Nieuwe Steen	Robeco NV	Bank NL. Gemeenten	Van Lanschot	Spazio Investment
	Van Lanschot	Bank NL. Gemeenten	SNS Reaal	Robeco		Van Lanschot
	Vastned	Robeco NV	Van Lanschot	Rodamco		Vastned
	Wereldhave	SNS Reaal	Vastned	Van Lanschot		
		Van Lanschot		Wereldhave		
		Vastned				
		Wereldhave				

Table 11: Sector 8000, Financials

2004	2005	2006	2007	2008
Asml Holding	ASM International	ASM International	ASM International	ASM International
BE Semiconductor Industries	Asml Holding	Asml Holding	BE Semiconductor Industries	Asml Holding
Ctac NM	BE Semiconductor Industries	BE Semiconductor Industries	Ctac NM	Ctac NM
Exact Holding	Ctac NM	Ctac NM	ICT Automatisering	Exact Holding
ICT Automatisering	Exact Holding	Exact Holding	Jubii Europe	ICT Automatisering
Jubii Europe	GETRONICS	ICT Automatisering	LB ICON AB	Jubii Europe
LB ICON AB	ICT Automatisering	LB ICON AB	LOGICACMG	LB ICON AB
LOGICACMG	Jubii Europe	LOGICACMG	Management Share	LOGICACMG
Nedsense Enterprises	LB ICON AB	Nedsense Enterprises	Nedsense Enterprises	Management Share
Oce	LOGICACMG	Oce	Oce	Nedsense Enterprises
Qurius	Nedsense Enterprises	Qurius	Qurius	Oce
Roodmicrotec	Priority Tel.	Roodmicrotec	Roodmicrotec	Ordina
Simac Techniek	Qurius	Simac Techniek	Simac Techniek	Qurius
SOPHEON	Roodmicrotec	SOPHEON	Smartrac	Roodmicrotec
Teleplan International NV	Simac Techniek	Teleplan International	SOPHEON	Simac Techniek
Tie Holding	SOPHEON	tele2	Teleplan International NV	Smartrac
TomTom	Teleplan International	Tie Holding	Tie Holding	SOPHEON
Vivenda Media Groep	tele2	TomTom	Tom Tom	Teleplan International
	Tie Holding	Triple P	Unit 4	Tie Holding
	Tom Tom	Vivenda Media Groep	Vivenda Media Groep	Vivenda Media Groep
	Triple P			
	Unit 4			
	Vivenda Media Groep			

Table 12: Sector 9000, Telecommunications and ICT (6000)

Appendix III Regression

Variable	β	t	Significance (p-value)
Constant*	0,386	4,051	0,000
Deal size***	-0,105	-1,815	0,071
Compensation Risk*	0,526	9,160	0,000
Firm Risk**	-0,128	-2,263	0,025
Firm Size (equity)	0,060	1,063	0,289
Performance (ROE)	0,022	0,400	0,690
Acquisition before	-0,026	-0,459	0,647
Acquisition after	0,061	1,046	0,297
Equity Holdings	-0,039	-0,676	0,500
Age*	-0,224	-3,639	0,000
Tenure	0,076	1,233	0,223
Education	-0,035	-0,581	0,562
R^2	0,405	* p<0,01	
F-ratio	12,648	** p<0,05	
Significance	0,000	*** p<0,10	

Table 13: Model with sector benchmark and firm size_equity

Variable	β	t	Significance (p-value)
Constant*	0,335	3,415	0,001
Deal size***	-0,096	-1,681	0,094
Compensation Risk*	0,539	9,536	0,000
Firm Risk**	-0,133	-2,380	0,018
Firm Size (# of employees)**	0,125	2,150	0,033
Performance (ROE)	0,025	0,457	0,648
Acquisition before	-0,031	-0,544	0,587
Acquisition after	0,075	1,295	0,197
Equity Holdings	-0,048	-0,842	0,401
Age*	-0,199	-3,174	0,002
Tenure	0,072	1,168	0,705
Education	-0,023	-0,379	0,705
R^2	0,415	* p<0,01	
F-ratio	13,179	** p<0,05	
Significance	0,000	*** p<0,10	

Table 14: Model with sector benchmark and firm size_number of employees

Variable	β	t	Significance (p-value)
Constant*	0,224	2,694	0,008
Deal size**	-0,113	-2,012	0,046
Compensation Risk*	0,547	9,830	0,000
Firm Risk	-0,090	-1,642	0,102
Firm Size (revenue)*	0,163	3,014	0,003
Performance (ROE)	0,042	0,783	0,435
Acquisition before	0,011	0,200	0,842
Acquisition after**	0,112	1,977	0,049
Equity Holdings	-0,027	-0,471	0,638
Age*	-0,202	-3,376	0,001
Tenure	0,063	1,043	0,298
Education	0,063	1,076	0,283
R^2	0,436	*	p<0,01
F-ratio	14,360	**	p<0,05
Significance	0,000	***	p<0,10

Table 15: Model with year benchmark and firm size_revenue

Variable	β	t	Significance (p-value)
Constant*	0,250	2,973	0,003
Deal size**	-0,113	-1,987	0,048
Compensation Risk*	0,523	9,207	0,000
Firm Risk***	-0,096	-1,725	0,086
Firm Size (equity)***	0,095	1,682	0,094
Performance (ROE)	0,043	0,774	0,440
Acquisition before	0,019	0,327	0,744
Acquisition after***	0,102	1,778	0,077
Equity Holdings	-0,047	-0,820	0,413
Age*	-0,211	-3,466	0,001
Tenure	0,063	1,027	0,306
Education	0,057	0,970	0,333
R^2	0,419	*	$p<0,01$
F-ratio	13,394	**	$p<0,05$
Significance	0,000	***	$p<0,10$

Table 16: Model with year benchmark and firm size_equity

Variable	β	t	Significance (p-value)
Constant**	0,195	2,259	0,025
Deal size***	-0,104	-1,841	0,067
Compensation Risk*	0,542	9,739	0,000
Firm Risk***	-0,103	-1,863	0,064
Firm Size (# of employees)*	0,164	2,880	0,004
Performance (ROE)	0,044	0,819	0,414
Acquisition before	0,012	0,217	0,829
Acquisition after**	0,121	2,135	0,034
Equity Holdings	-0,059	-1,041	0,299
Age*	-0,180	-2,929	0,004
Tenure	0,059	0,972	0,332
Education	0,073	1,242	0,216
R^2	0,434	* p<0,01	
F-ratio	14,237	** p<0,05	
Significance	0,000	*** p<0,10	

Table 17: Model with year benchmark and firm size_number of employees