



Earnings management surrounding CEO changes in the Netherlands

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Foreword

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Chapter 1: Introduction

1.1 Introduction

The last couple of years there have been an increase in stock-based and option-based executive compensation. The median exposure of the world wide CEO income to firm stock price tripled between 1980 and 1994, and doubled again between 1994 and 2000 (Hall and Liebmann, 2000). And while the median of CEO bonuses was just between 50 percent and 68 percent of the basic salary in 2005, it already increased to 83 percent till 105 percent in 2008 (Piia Pily, 2008). The firms who are responsible for this change often described the increase in CEO exposure to stock prices as a way to align upper management incentives with the interests of shareholders (Bergstresser and Philippon, 2004). However, some studies show an opposite result (Wells, 2002, Pourciau, 1993), it has been suggested that large option packages increase the incentives for managers to manipulate their firms' reported earnings, especially surrounding CEO changes, because the circumstances surrounding certain types of executive turnover provide incentives for the incoming and outgoing CEO to make opportunistic accounting choices. For example, the incoming executives may undertake earnings management to decrease earnings in the year of the executive change and increase earnings the following year (Wells, 2002, Pourciau, 1993). However, none of the studies provide a clear answer to this subject.

This thesis investigates the extent of (income-increasing or income-decreasing) earnings management in the periods surrounding chief executive officers changes by Dutch firms during the period 2003-2007. 2008 will not be part of this thesis, because it is not clear whether the CEO's who were appointed in 2008, are still employed in 2009. Although the relation between earning management and CEO changes is already discussed in literature (Wells, Australia 2002, Pourciau, USA, 1993), there is a lack of empirical evidence for Dutch firms on this issue. The fact that this region has specific characteristics, which potentially increase the risk of earnings management, makes it even more interesting to investigate. In other words, this thesis directly addresses this lack of empirical evidence, and provides the first evidence by identifying CEO changes and examining the extent of earnings management prior, during, and immediately after the change of a chief executive officer among Dutch firms.

1.2 Dutch situation

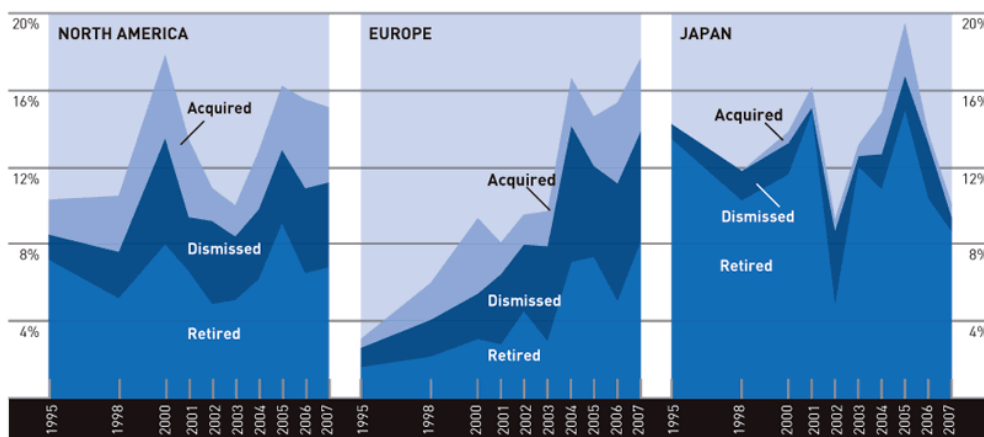
The focus on Dutch CEO changes is motivated by several considerations, those considerations will be discussed in this paragraph per category. First, the differences in characteristics between the US and Europe will be discussed, then the differences between the Netherlands and the US and Europe will be reviewed in order to gain more understanding about the considerations to focus just on the Netherlands in this thesis.

United States versus Europe

Differences in CEO tenure

According to figure 1 (Garret, 2007), we can see that Europe led the world in CEO turnover in 2007, with an overall rate of 17.6 percent, compared with 15.2 percent in North America, 10.6 percent in Japan, and 9.1 percent in the rest of the world. Europe is the most aggressive region in replacing CEO's whose companies aren't performing well; it has the fastest rate of growth in CEO turnover, and the shortest average CEO tenure. This shorter CEO tenure in Europe potentially increases the risk of earnings management in Europe, because managers who are threatened by termination try to increase earnings to avoid termination according to Murphy and Zimmerman (1993).

Figure 1: CEO turnover by region.



Legend:

Acquired = Due to acquisition of a company or a merger

Dismissed = Non-routine change

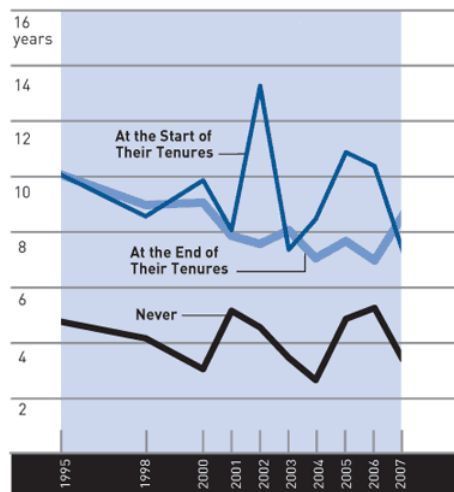
Retired = Routine change

Difference in CEO governance models

Another difference between Europe and the US may be their different CEO governance models, i.e. is whether the CEO also serves as chairman of the board during their CEO tenure,

because according to figure 2, a combined CEO–chairman is less likely to be dismissed (Karlsson et al, 2007).

Figure 2: Tenures of CEO’s who were chairman.



Legend:

- = CEO & chairman at one time at the end of their tenure (US)
- = CEO & chairman at one time at the start of their tenure (US)
- = Never been a CEO & chairman at one time (Europe)

In Europe, only 16.5 percent of the European CEO’s leaving office in 2007 held both titles during their careers as a CEO, with an average tenure of 5 years; while in North America, nearly 75 percent held both titles during their careers as a CEO with an average tenure of 10 years. The longer tenure of CEOs in the US might be explained by the fact that the idea of a long-serving CEO which is deeply ingrained in the U.S. business culture in contrast with Europe (Lucier et al, 2005). Furthermore, the low number of CEO’s who hold both titles in Europe reflects established governance models in many countries (including France, Germany, Italy, the Netherlands, and the United Kingdom). The shorter CEO tenure in Europe, potentially increases the risk of earnings management in Europe. Because as mentioned above, according to Murphy and Zimmerman (1993), managers who are threatened by termination try to increase earnings to avoid termination.

United States versus Europe versus the Netherlands

Differences in CEO governance models

In the previous part, a difference in CEO governance model has already been discussed. However, there is another explanation for the difference in European and North American rates of CEO dismissal within the CEO governance models. In a study done by Booz Allen Hamilton, they found significant differences between geographic regions. In Europe, where CEO’s are presumed to be more protected by intimate relationships among senior

management, boards, governments, and financial institutions, CEO's are at most risk contrary to the expectation. This result might be explained by the difference between Europe and the US in their CEO governance models, because in Europe there is the Rhineland model. Countries with 'Rhineland model' policies include Austria, Belgium, France, Germany and Luxembourg. Another term used to describe these countries is the continental social partnership model. In this model they think more in terms of stakeholders. By encouraging influence from every party involved, one can achieve a better situation for everyone. However, this assumption (*a better situation for everyone*) doesn't always have to be in the interest of the shareholder. In fact, the Rhineland model makes the shareholder in Europe of less influence on the CEO's compared to the US. Because in the US where the self-regulated Anglo-Saxon model is applied, issues such as economic value and shareholder value take precedence, with a result that the shareholder has more influence. This difference in influence of the shareholders might explain the difference in rates of dismissal of the CEO's.

In the Netherlands, there has not been an Anglo-Saxon business model like the US, but the 'collegial Poldermodel' which is derived from the Rhineland model (It has to be noticed that in the last couple of years, there have been a shift towards the Anglo-Saxon business model). In this Poldermodel, consensus and teamwork are the most important aspects, resulting in among other things wage-restraint and employment growth (van de Kerkhof, 2006). This wage-restraint is an important aspect. Because stockholder think that high bonuses might increase the explicit incentives that CEO's may experience to manipulate income to maximise bonus-based compensation. However, the wage-restraint (which include the bonuses for the CEO's) due to the Poldermodel, potentially reduces the explicit incentives that CEO's may experience to manipulate bonus-based compensation. On the other hand, the low rates (actually the lowest compared to figure 3) of total CEO compensation may also increase the potential risk of earnings management, because it provides incentives to the Dutch CEO's to increase their income by manipulating earnings.

Differences in bonuses

Another difference between the Netherlands and Europe/US is the difference in rates of CEO compensation. This rate of CEO compensation might be an incentive for CEO's to manage earnings to maximize bonus-based compensation, and thus also resulted in some discussions in the Netherlands about the bonuses of CEO's (Weblog topsalaris Volkskrant, 2009). An example is the participation of the Netherlands during the G20 meeting in London in 2009 to

reach a consensus on executive pay. The goal of the meeting was to pass “tough new principles on pay and compensation”. While the Netherlands are not a member of the G20, they still came up with some proposals to reach this goal (Gruyter, 2009).

This discussion about bonuses is caused by the fact that stockholders think that high bonuses might increase the explicit incentives that CEO’s may experience to manipulate income to maximize bonus-based compensation (Cools, 2008). However, a recent study shows that the Netherlands has a much lower (the lowest) rate of total CEO compensation compared to Europe and the US (Garret, 2008)¹.

Figure 3: Chief executive - total cash (€000s).

	Europe	US	France	Germany	Netherlands	UK
No. of companies	50	50	11	10	4	19
Upper Quartile	3,920	6,600	3,400	3,660	-	4,300
Median	3,280	4,490	2,820	3,280	1,680	3,590
Lower Quartile	2,570	2,530	1,940	2,730	-	3,230
Median Indexed to Europe = 100	100	137	86	100	51	109

The European companies covered are the 50 largest by market capitalisation for which chief executive compensation data are disclosed: UK (19), France (11), Germany (10), Netherlands (4), Italy (3), Switzerland (2), and Finland (1).

This could show an opposite effect, it potentially reduces the explicit incentives that CEO’s may experience to manipulate bonus-based compensation. On the other hand, it may also increase the potential risk of earnings management, because Dutch CEO’s have the lowest rates of total CEO compensation compared to CEO’s in other countries, and this lower income might provide incentives to the Dutch CEO’s to increase their income by manipulating earnings. So there is no clear answer yet to this subject and also prior research, that was mainly US-based, does not provide a clear answer. Also, it has to be noticed that the number of the sample size for the Netherlands in figure 3 is just four, so the result of this study are not that strong to draw conclusions about the behaviour of CEO’s.

Differences in corporate governance

According to Karlsson et al (2007), the higher number of CEO dismissals at European companies might also be a result of the corporate governance reforms established since the late 1990s by many countries, including the Netherlands. On the 1st of January of 2004, a new

¹ This research is done by the Hay Group, a human resources firm. The report indicated that chief executives received in the US and the UK have the highest median total direct compensation (including salary, bonus, and fair value of long-term incentive awards) according to the survey of compensation at the 50 largest European companies and the Netherlands had the lowest rates of total CEO compensation.

Dutch Corporate Governance Code became effective. The results of these reforms have been a shift of power from CEO's to boards of directors and shareholders, with a result that boards have become more proactive about risk management and are therefore more likely to depose a CEO. During these non-routine, unplanned CEO changes, the CEO's might have several incentives to manage earnings; this will be discussed more in detail in chapter 4. On the other hand, the new corporate governance code might also have reduced earnings management during CEO changes; because due to the improved regulations, it might have become more difficult for the Dutch CEO to manage earnings.

This can be explained by the fact that the new Dutch corporate governance code requires companies to annually publish how it applied the principles of the corporate governance code to its company's corporate governance in the last financial year. According to this corporate governance code, the management board and supervisory board should take account of the interest of the different stakeholders more than before. This is directly related to the positive accounting theory and the agency problem, and thus to this thesis. Good entrepreneurship, including integrity and transparency of decision-making by the management board, and proper supervision thereof, including accountability for such supervision, are essential if the stakeholders are to have confidence in the management board (Corporate Governance Committee, 2003). These are the two pillars on which good corporate governance rests and on which this Dutch code is based.

The combination of the shortest average of CEO tenure in Europe, the differences in CEO governance models between the US and Europe, the lowest rates of total CEO compensation in the Netherlands and the differences in corporate governance between the Netherlands and Europe and the US, potentially increases the risk of earnings management in the Netherlands compared to the U.S. In this thesis I will investigate whether there is earnings management prior, during, and after a CEO change in the Netherlands.

1.3 Non-routine versus routine changes

Prior literature (Pourciau 1993, Wells 2002) has found that the motivations and opportunities for income manipulation vary with the circumstances of the CEO change. Their prediction, based upon a research done by Vancil (1987), is that the degree of earnings management will be higher in times of non-routine changes. Because non-routine changes are often unplanned due to inadequate time and/or insufficient opportunity to select and groom a successor CEO, it is difficult for the directors and stockholders to structure the CEO turnover in a way that

minimizes the opportunities and incentives for earnings management (Pourciau, 1993). However, in my opinion it is not just the company who will not be able to take the time for structuring the CEO turnover (because non-routine changes are most of the time unplanned); but it is also possible that the outgoing CEO has no time to perform earnings management. And from that point of view there will be less chance for earnings management behaviour and the degree of earnings management will be lower even during a non-routine change.

This knowledge will be used by separating the CEO changes into non-routine and routine changes. This classification of CEO changes as routine or non-routine is based on an extended information search and that provides insights into the CEO change process.

1.4 Research question

Taking these considerations into account and after studying prior research with the scope on earnings management and CEO changes (Pourciau, 1993; Murphy and Zimmerman, 1993; Wells, 2002), the following research question has been developed:

'Is there significant evidence of earnings management surrounding non-routine and routine CEO changes of Dutch firms during the period 2003-2007?'

2008 will not be part of this thesis, because it is not clear whether the CEO's who were appointed in 2008, are still employed in 2009. And 2003 is the starting point, because the two websites that have been used to identify the CEO changes became effectively since 2002.

Furthermore, the following sub questions will be used in order to give answer to the research question:

- *What is earnings management?*
- *What are the methods to detect earnings management?*
- *What are the incentives for incoming and outgoing CEO to apply earnings management?*
- *What is the relationship between earnings management and CEO changes?*
- *What is the research design for this study?*
- *What are the results of this study?*

1.5 Methodology

In order to give answer to the research question, the following accrual detection models will be used: the times series modified-Jones model and the performance-matching Jones model. The choice for the modified-Jones model is based on several considerations. First, it is the most commonly used model to estimate the non-discretionary accrual component despite more recent models, so it will be easier to compare the results of this study to prior research. Also, due to the limitations of the other models, which will be discussed later on, this model is supposed to be the best model for this study. The performance-matching Jones model will be used as well because it is almost similar to the modified-Jones model, except that it is augmented to include ROA_{it} or ROA_{it-1} . Kothari's motivation to use ROA as the matching variable is caused by the fact that Dechow et al. (1998) suggest that ROA controls for the effect of performance on measured discretionary accruals. Kothari (2005) suggest that this model might provide stronger results for earnings management. However, there are no studies yet who confirmed or rejected this assumption. Those two models will be used to measure the level of accruals during 67 CEO changes among 62 firms. And in addition, I will also evaluate the two competing models to find out which of the two models is actually a better model to detect earnings management. This will be done in a way described in the paper of Dechow (1995), who argue that the power of the earnings management test is inversely proportional to the magnitude of the standard error. In other words, the standard deviation of total accruals becomes the benchmark with which discretionary accruals should be evaluated. That is, a good discretionary model must yield standard error below this level (Dechow, 1995).

The CEO changes in this thesis were identified by using a list of the annually best paid CEO's at Dutch companies; this list can be found on the website of the Dutch newspaper Volkskrant. By comparing the same list for different years, it was possible to identify CEO changes. This procedure has also been applied to another list on the website www.bestuursvoorzitter.nl. This site does not just contain the best paid CEO's, but the rewards of all CEO's of the companies on the Euronext Amsterdam. In this way it was possible to identify even more CEO changes. Besides these two lists, other CEO changes were identified by using the annual list of FEM Business which contains the top ten CEO's of large companies (also not listed companies) who are likely to depart that year. All these changes were confirmed by reference to firms' annual reports. For an overview of all the CEO changes, see appendix B.

1.6 Expected outcome

The expectation is to find evidence for earnings management prior to CEO departures like Dechow and Sloan (1991), caused by the lowest CEO income and the specific characteristics of the corporate governance in the Netherlands. This is in contrast with the results of prior research (Pourciau, USA, 1993; Murphy and Zimmerman, USA, 1993; Wells, Australia, 2002), which found little empirical support for CEO's undertaking upward earnings management prior to a CEO change.

Furthermore, the expectation is to find support for the view that incoming CEO's take an earnings bath in the year of a CEO change, with the strongest results for CEO changes categorised as non-routine, caused by the fact that non-routine changes are often unplanned, making it difficult for the directors and stockholders to structure the turnover in a way that minimizes the opportunities and incentives for earnings management.

1.7 Relevance

This thesis contributes to the literature by providing first evidence of earnings management around CEO changes in Europe, and specifically the Netherlands. Prior research was mainly US and Australian-based and the expectation is to find significant evidence of earnings management surrounding CEO changes of Dutch firms, based on the differences in compensations and CEO tenure between the regions as mentioned above. Furthermore, stockholders think that high bonuses might increase the incentives that CEO's may experience to manipulate income to maximize bonus-based compensation. This means that the new guidelines in the Netherlands might not have strengthened the corporate governance function and did not enhance the integrity of financial reporting surrounding CEO changes. The results of this thesis could provide incentives and help regulators in their decision to make adjustments to the corporate governance code surrounding CEO changes, in an attempt to reduce the chance of CEO's using earnings management within companies.

Second, contrary to the study by Wells (2002) who just used one prediction accrual model, the modified-Jones model and performance-matching Jones model will be evaluated as well in this thesis in order to find out which model is a better discretionary accrual model. So the results of this thesis offer some practical guidance for determining which model to use for detecting earnings management activity surrounding CEO changes. In other words, this thesis extends the prior work by using and evaluating the results of the two models, and also a more recent period will be investigated.

1.8 Outline

The remainder of this thesis is organized as follow. In the second chapter, earnings management will be reviewed to answer the first sub question what earnings management actually is. The procedures and methods used to investigate and detect earnings management are discussed in the third chapter and that way will provide answer to the second sub question. The third and fourth sub questions will be answered in chapter four and chapter five, prior literature about earnings management relating to CEO changes and possible incentives for CEO's to manage earnings will be reviewed in those chapters. In chapter six the research design will be discussed together with the data collection. In chapter seven the last sub question will be answered by providing the results of this study, which will be analyzed and discussed. And finally, conclusions, limitations and suggestions for future research are presented in the last chapter.

Chapter 2: Understanding earnings management

2.1 Introduction

One of the objectives of external reporting is the dissemination of information from inside the organization to outsiders. More specifically, to provide users with information about the financial position, results and changes in the financial position which they need for making economic decisions (Klaassen en Hoogendoorn, 2004). Because there are often conflict of interests between the (management of the) organization and outsiders, there is a need for an institutional and juridical framework of reporting regulations.

2.2 Positive Accounting Theory

The positive theory is closely related to this thesis, it is a theory that seeks to explain and predict particular phenomena. It is a theory that purports to describe behaviour that is actually practiced as opposed to norms or standards that ought to be practiced. An example of a particular positive theory of accounting is the positive accounting theory of Watts and Zimmerman (1978). As Watts and Zimmerman state, Positive Accounting Theory is concerned with explaining accounting practice. It is designed to explain and predict which firms will and which will not use a particular method, but it says nothing as to which method a firm should use. This is in contrast with the normative accounting theory that seeks to derive and prescribe "optimal" accounting standards. The positive accounting theory focuses on the relationship between management and owners involved in providing resources to an organization and how accounting is used to assist in the functioning of these relationships (Watts and Zimmerman, 1978). It is focused on the behavior of managers and the goal of this theory is to describe, explain and predict actual accounting practices of managers.

The positive accounting theory is based upon two assumptions. The first assumption is that all individuals are self-interested and will try to increase their wealth. The second assumption is that individuals will always act in an opportunistic manner (Watts and Zimmerman, 1978). An example of self interested behaviour, and which is an important aspect of this thesis, is the self interest of the outgoing CEO to increase their bonus compensation at the end of their CEO tenure. As a consequence of this opportunistic behaviour, the organization will try to put mechanism in place in an attempt to align the interest of the agents and the principals. An example of such a mechanism and also a subject of this thesis is the compensation contract for

the CEO (chief executive officer). However, the question upon today is still whether CEO's really act in the interest of the shareholders due to these compensation contracts (value increase of the organization), or whether they are still acting in their own interest (increase their bonus compensation), especially during a CEO turnover. Given the assumptions that all individuals are driven by self-interest, the positive accounting theory could explain management choice of particular accounting methods.

Besides those two assumptions, the PAT is organised around three hypotheses, which are:

- the bonus plan hypothesis
- the debt covenant hypothesis
- the political cost hypothesis

The first hypothesis (the bonus plan hypothesis) implies that managers will use accounting policies that are likely to shift reported earnings from future periods to the current period. This is to maximize their personal compensation as by reporting a high net income, their utility will be maximized through bonuses and incentives (Watts and Zimmerman, 1990). However, a bonus plan does not always give managers incentives to increase earnings. Because when earnings are below the minimum level required for payment of a bonus, or when bonus compensation has already been maximized, managers would rather have incentives to reduce earnings than increase earnings. This bonuses plan hypothesis is directly related to the subject of this thesis, because CEO's might have the incentives to make income-increasing accounting decisions in a period prior to the CEO change to maximize their bonuses just before they leave the company, or income decreasing incentives during the year of a CEO change. However, it has to be noticed that there is a difference between stock-based bonuses and earnings-based bonuses. Because the latter one is directly related to the subject of this thesis, while stock-based bonuses are indirectly related to the subject of this thesis.

The second hypothesis, the debt covenant hypothesis, implies that a firm's main managerial objective is to minimize problems with creditors. Especially at times where firms are close to violating accounting-based debt covenants, they are more likely to select accounting procedures that shift reported earnings from future periods to the current period (Watts and Zimmerman, 1990). Also this hypothesis is related to this thesis, because in the period prior to the CEO change, the CEO are more likely to select accounting procedures that shift reported earnings from future periods to the current period. Basically firms choose accounting

procedures that increase income to avoid violations with creditors. This way they build confidence among the creditors and thus might avoid an early termination.

Also the last hypothesis is related to earnings management but not applicable to the subject of this thesis. The political cost hypothesis states that the greater the political cost to the firm, the more likely management is to use accounting policies to defer reported earnings from current periods to future periods, because highly profitable firms attract media and consumer attention. This attention could be an incentive for management to make use of earnings management. Because the consequence is that questions will be raised in times of high profits, this attention can create an increase in taxes and other regulations (Watts and Zimmerman, 1990).

These three hypotheses are the cornerstones of the PAT, and all three the hypotheses are directly related to earnings management. Another theory that also describes this problem and related to the PAT and this thesis is the agency theory. The principal-agent problem is found in most employer/employee relationships, for example, when stockholders hire top executives (CEO's) of corporations. The principal-agent theory explains the relationships that arise under conditions of incomplete and asymmetric information when a principal (shareholder) hires an agent (CEO) (Jensen and Meckling, 1976). An example is the problem that the two may not have the same interests, while the principal is, presumably, hiring the agent to pursue the interests of the former. And according the assumption of the positive accounting theory, the agent (CEO), might be only interested in his own compensation during his tenure. Various mechanisms may be used to try to align the interests of the agent in solidarity with those of the principal, like a contract between the principal and the agent. However, there is still no clear answer to the question whether those mechanisms really work in an attempt to align the interest of the agent with those of the principal.

So both the positive accounting theory and the agency theory as well are part of this thesis (see chapter four). Not just because this thesis will provide more information about CEO's behavior during a CEO turnover in the Netherlands, but also it will try to answer the question whether CEO's undertake upward earnings management prior to a CEO change or downward earnings management after a CEO change (so whether they act in the interest of the shareholders).

2.3 Definitions of earnings management

In prior literature there are many definitions given about earnings management. Most of these definitions describe earnings management as a negative phenomenon. However, not all earnings management is misleading. According to Ronen and Yaari (2008) there are many different definitions of earnings management and these definitions can be classified as white, grey or black. Figure 5 shows a summary of these different definitions.

Figure 5: Alternative definitions of earnings management

White	Gray	Black
Earnings management is taking advantage of the flexibility in the choice of accounting treatment to signal the manager's private information on future cash flows	Earnings management is choosing an accounting treatment that is either opportunistic (maximizing the utility of management only) or economically efficient	Earnings management is the practice of using tricks to misrepresent or reduce transparency of the financial reports

Beneficial (white) earnings management enhances the transparency of reports; the pernicious (black) involves outright misrepresentation; and managing reports within the boundaries of compliance with bright-line standards (grey), which could be either opportunistic or efficiency enhancing (Ronen and Yaari, 2008). It has to be noted that all three definitions are within the boundaries of the rules and regulations

An example of a negative (black) definition is given by Healy and Wahlen:

*“Earning management occurs when **management use judgment** in financial reporting and in structuring transactions to alter financial reports to either **mislead some stakeholders** about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers”*(Healy and Wahlen, 1998).

Two aspects of the above definition will be further discussed. First, management has a lot of choices that they can exercise judgment to influence the figures. Because these will not always be objective decisions, future estimations could be an instrument for managers to manipulate. The second aspect is the mentioned objective of earnings management as being to mislead stakeholders, as mentioned above, according to the classification of Ronen and Yaari (2008) not all earnings management is misleading.

Another well-known definition that describes earnings management in a negative manner is that from Schipper:

“*Earning Management is a **purposeful intervention** in the external financial reporting process, with the intent of **obtaining some private gain** as opposed to merely facilitating the neutral operation of the process*” (Schipper, 1989).

Both definitions include the freedom of management to operate within the rules and regulations of external reporting. Behaviour outside the boundaries of the rules and regulations is called fraud. However, the latter one is not the focus in this study.

Beside these two negative descriptions of earnings management, there are also some positive (white) aspects mentioned in prior literature as mentioned above. Healy and Wahlen (1998) give a short (white) comment on their (black) definition, by mentioning that management can also have intentions to make financial reports “more informative” for users. Also Beneish (2001) puts earnings management in a more positive view by mentioning the information perspective on earnings management. The intention of earnings management is “a means for managers to reveal to investors their private expectations about the firm’s future cash flows”.

Several definitions of earnings management have been discussed above, positive (white) definitions and negative (black) definitions as well. Although it is known that not all earnings management is misleading, this study will investigate whether earnings management does exist in the Netherlands, based on the fact that we do not know whether management is always acting in the interest of stockholders. Also, it has to be noticed that during this empirical research, there will be no distinction made between black, white or grey earnings management, because we simply don’t know what the incentives are if earnings management is applied during CEO changes. As will be discussed in the next paragraph, management have a lot of incentives to manipulate a firm’s reported earnings, which cause stockholders being sceptic all the time. By investigating whether there is significant evidence of earnings management surrounding non-routine and routine CEO changes of Dutch firms, this study might improve the relationship and trust between stockholders and management by providing more insight in management reporting behaviour.

During the investigation of this thesis it is important to be aware of the distinction between earnings management and earnings manipulation. Earnings manipulation occurs when managers manipulate earnings to *mislead* investors and benefit from the wealth transfer between investors and management, while earnings management does not support this notion, because it does not mislead investors (Stolowy & Breton, 2004).

2.4 Management's incentives for earnings management

Although it is known that earnings management exists, it seems to be very difficult for researchers to prove it with convincing evidence (Beneish 2001). "This problem arises primarily because, to identify whether earnings have been managed, researchers first have to estimate earnings before the effects of earnings management, which is not an easy task" (Healy and Wahlen, 1998).

One common approach is to identify management's incentives for making use of earnings management and to estimate whether patterns of unexpected accruals (detection methods will be discussed in chapter 3) are consistent with these incentives (Healy and Wahlen, 1998). Healy and Wahlen distinguish three different incentives for earnings management:

1. Capital Market motivations
2. Contracting motivations
3. Political costs motivations

The first incentive means that management tries to manipulate earnings in an attempt to influence short-term stock price performance. This is possible because investors and other interested parties make use of all available information to predict the profitability and performance of an organization. An example of information where investors rely on is accounting information published by the organization. This gives the management of an organization incentive to manipulate accounting information to achieve specific objectives. For example, increasing the results and stock prices makes them more attractive for investors. The second incentive deals with different individuals involved in providing resources to an organization. Because the behaviour of management is characterized as self interest, outsiders like to conclude contracts to anticipate unwanted behaviour. "Watts and Zimmerman (1990) suggested that these contracts create incentives for earnings management because it is likely to be costly for compensation committees and creditors to "see through" earnings management" (Healy and Wahlen, 1998). The first and second incentives are both closely related to each other, because contracts nowadays often contain stock-based and option-based executive compensations as part of the contracts. The last incentive for management's discretionary judgment has to do with the size of the company. It predicts that larger companies have higher incentives than smaller companies to manipulate the figures because the larger the company the more attention the company attract from public. Not this attention, but the consequence that questions will be raised in times of high profits, could be an incentive for management to make use of earnings management.

2.5 Methods of earnings management

Managers who want to influence accounting income can choose between a couple of methods. Some of the methods are pure accounting decisions, and some of the methods require real transactions. Generally, there are two methods to apply earnings management: Real transactions and accrual management. The first method means that managers are manipulating reported earnings by structuring real transactions. That is, they can alter the timing and scale of real activities throughout the accounting period in such a way that a specific earnings target could be met (Kim and Sohn, 2009). It is also called natural income manipulation, i.e. playing with the timing of transactions (Stolowy and Breton, 2004).

However, in this study, the focus will be on accruals, accruals are the difference between the results and the cash flow (Ronen and Yaari, 2008). Since the cash flow can not be manipulated by the method of accrual manipulation (it can by real transactions), the result can only be affected by adjustments to accruals. Accruals occur when revenues and expenses are recognized when they are accrued. Accrued revenue refers to revenue that has been incurred but not yet received. Accrued expense, in contrast, refers to an expense that has been incurred but not yet paid. Managers can manipulate accruals at the end of the financial year, which is as mentioned above, within the boundaries of compliance with bright-line standards.

One way to manage earnings is *income smoothing*, which means moderating year-to-year fluctuations in income by shifting earnings from peak years to less successful periods. This will lower the peaks and support the troughs, making earning fluctuations less volatile (Trueman et al, 1988). Another way is *big bath accounting*. Big bath accounting is strongly related to this research. According to Hoogendoorn et al (2004), it is the process where corporations write-off or write-down certain assets from their balance sheets in a single year. The write-off removes or reduces the asset from the financial books and results in lower net income for that year. The objective is to ‘take one big bath’ in a single year so future years will show increased net income, this way the incoming CEO attempts to attribute past poor performance to the previous CEO since they are not held responsible for past performance (Hoogendoorn et al., 2004).

2.7 Conclusion

In this chapter earnings management and management’s incentives for earnings management have been described in an attempt to gain more knowledge about earnings management, the objective of the first sub-question. As mentioned above, there are positive definitions and

negative definitions of earnings management as well. But before analyzing whether there is earnings management behaviour surrounding CEO changes, several methods to detect earnings management will be discussed in the next chapter. However, it has to be noticed that earnings management is not easy to detect by just using external financial statement information, because earnings management tends to be invisible and not directly measurable. In an attempt to solve this problem, several methods to detect and measure earnings management have been developed during the last years. These methods are: the discretionary accrual method, the single accrual method and the total accruals method. The focus in this study will be on discretionary accruals, these models are based on the assumption that managers mainly rely on the discretion over accounting accruals in relation to earnings management (Jones, 1999). These models will be discussed further in the next chapter.

Chapter 3: Detection models of earnings management

3.1 Introduction

In the previous chapter different definitions of earnings management have already been discussed. In addition it could be concluded that it is still difficult to detect the use of earnings management. The main reason is that it is necessary to define normal earnings before concluding something about unusual earnings. Various researchers who tried to detect earnings management behaviour have developed some models. In this chapter, the most important accrual models will be discussed: the Healy model (1985), the DeAngelo model (1986), the Jones model (1991), the modified Jones model (1995), the Margin model (2000) and the performance- matching Jones accrual model (2005). In the conclusion, the motivation for choosing the modified Jones (1995) model as a basic for further investigation will be discussed and the motivation for using the performance-matching Jones model (2005) as well.

3.2 Accrual models

Before discussing the different accrual prediction models, it is useful to define accruals and describe the measures used in the empirical literature. Total accruals are defined as the difference between net income and cash flow from operations (Dechow et al., 1995). There are two types of accruals: the normal or expected accruals (referred as non-discretionary) and the abnormal or unexpected (referred as discretionary) accruals. **Non-discretionary accruals** are accruals that arise from transactions made in the current period that are normal for the firm given its performance level and business strategy, industry conventions, macro-economic events, and other economic factors. **Discretionary accruals** are accruals that arise from transactions made or accounting treatments chosen in order to manage earnings (Ronen, Yaari 2008). The problem is to identify the discretionary component of accruals. In the next part, some of the accrual prediction models and the power or limitations of each model will be discussed.

3.2.1 Healy model (1985)

Healy (1985) was the first one who tried to detect earnings management by estimating deviations from normal levels of accruals. He decomposes accounting earnings into cash flows from operations (Ct), non-discretionary accruals (NDAt) and discretionary accruals (DA_t), where he defines non-discretionary accruals as accounting adjustments to the firm's

cash flows mandated by accounting standard-setting bodies and discretionary accruals as adjustments to cash flows selected by the manager (Healy, 1985). Healy measured the non-discretionary accruals with the average total accruals from a particular period (i.e. the estimation period, most of the time a period of 5 years) without making a distinction between discretionary and non-discretionary accruals. So the non-discretionary accruals are supposed to be constant in the Healy model, because Healy assumes $TA=DA$ during the estimation period. However, Kaplan (1985) points out a weakness to this research: Errors arise when measuring non-discretionary accruals if the average total accruals of the prior years are being used as a proxy, because non-discretionary accruals are most of the time not equal to zero and actually do vary with economic conditions and circumstances.

3.2.2 DeAngelo model (1986)

DeAngelo et al assume a random walk by defining discretionary accruals as the change in total accruals of the current period t compared to the total accruals of period $t-1$. DeAngelo's model assumes the most recent period $t-1$ contained no earnings management and therefore that period's total accruals are a reasonable proxy for non-discretionary accruals. So actually, DeAngelo defines total accruals as Healy (1985). However, there is a difference between the Healy model and the DeAngelo model, while the latter one is using the *total* accruals of just the *prior* year as a proxy for non-discretionary accruals; Healy uses the *average* of past total accruals of *several* years (most of the time 5 years) as a proxy for non-discretionary accruals.

However, as already mentioned above, Kaplan (1985) already stated that it is not possible that non-discretionary accruals are zero given a period. With a result that following DeAngelo's model, it might occur that non-discretionary accruals will be classified as discretionary accruals, while they are not. Dechow et al. (1995) also state that the assumption that the average change in nondiscretionary accruals is zero for both the Healy model and the DeAngelo model, will result in errors when nondiscretionary accruals change periodically (Dechow, 1995).

3.2.3 Jones model (1991)

Jones (1991) proposes a model that attempts to control for the effects of changes in a firm's economic circumstances on non-discretionary accruals. The Jones model uses changes in revenues (REV) from period $t-1$ to t and period t gross plant, property, and equipment (GPPE) to predict total accruals and to control for changes in the firm's economic circumstances:

GPPE is used to control for the portion of total accruals related to non-discretionary depreciation expense, and REV to control for the normal (unmanaged) level of current accruals. Sales revenues are an objective measure of the firm's operation before manager's manipulation, so this variable will control for the economic environment of the firm (Jones, 1991). But before calculating non-discretionary accruals, total accruals have to be calculated first, which are defined as the difference between net income before extraordinary items and operating cash flows:

$$\frac{TA_{it}}{A_{it-1}} = \frac{EXBI_{it} - CFO_{it}}{A_{it-1}} \quad (1)$$

Where:

- TA_{it}:** Total accruals
EXBI_{it}: Earning before Extra Ordinary Items for firm *i* in year *t*.
CFO_{it}: Operating Cash Flows for firm *i* in year *t*.
A_{it-1}: Total Assets for firm *i* in year *t*.

Then, Jones uses a two-stage approach to separate the normal and abnormal accruals. In the first stage, the estimation stage, Jones assumes that in the control year (*t-1*) no discretionary accruals exist or where it is expected to average to zero.

The parameters are estimated by regressing the total observed accruals (TA) on the change in sales (ΔREV) and the gross level of property, plant and equipment (PPE). The parameters are estimated for each sample firm separately by using the longest available time-series data prior to the event year. The estimated coefficients are used to calculate the nondiscretionary component in TA. These coefficients are the level at which the associated variable influences the NDA. It is reasonable to say that these coefficients differ per industry. Estimates of the firm-specific parameters, α_1 , α_2 and α_3 , are generated using the following model in the estimation period:

$$\frac{EA_{it}}{A_{it-1}} = \alpha_1 \left(\frac{1}{A_{it-1}} \right) + \alpha_2 \left(\frac{\Delta REV_{it}}{A_{it-1}} \right) + \alpha_3 \left(\frac{PPE_{it}}{A_{it-1}} \right) + \varepsilon_{it} \quad (2)$$

Where

- EA_{it}:** Estimated total accruals for firm *i* in period *t*.
 ΔREV_{it} : Change in revenues for firm *i* in period *t*.
PPE_{it}: Property plant and equipment for firm *i* in period *t*.

A_{it-1}: Total assets in for firm *i* period in period *t-1* (use of assets as the deflator is intended to mitigate heteroskedasticity in residuals).

α1, α2, α3: Firm-specific parameters.

ε_{it}: Error term for firm *i* in period *t*.

In the second stage, the discretionary component of the total accruals is determined by using the parameters that have been estimated in the first stage of the model. In this stage, the non-discretionary accruals (NDA) are determined by combining the parameters with ΔREV and PPE.

$$\frac{NDA_{it}}{A_{it-1}} = \alpha_1 \left(\frac{1}{A_{it-1}} \right) + \alpha_2 \left(\frac{\Delta REV_{it}}{A_{it-1}} \right) + \alpha_3 \left(\frac{PPE_{it}}{A_{it-1}} \right) \quad (3)$$

Where

NDA_{it}: Non-discretionary accruals for firm *i* in period *t*.

ΔREV_{it}: Change in revenues for firm *i* in period *t*.

PPE_{it}: Property plant and equipment for firm *i* in period *t*.

A_{it-1}: Total assets in for firm *i* period in period *t-1*.

α1, α2, α3: Firm-specific parameters.

The abnormal or discretionary accruals (DA) are determined by subtracting NDA from TA:

$$DA_{it} = TA_{it} - NDA_{it} \quad (4)$$

Where:

DA_{it}: Discretionary accruals for firm *i* in year *t*.

TA_{it}: Estimated total accruals for firm *i* in year *t*. (see equation 1)

NDA_{it}: Estimated non-discretionary accruals for firm *i* in year *t*. (see equation 3)

So Jones (1991) modifies the definition of total accruals compared with DeAngelo (1986). The use of longer time series improves estimation efficiency but in addition increases the probability of structural changes during the estimation period (Jones, 1991). Furthermore, Jones (1991) adds the PPE_{it} variable to the model to control possible changes in non-discretionary accruals caused by changing conditions. However, Dechow et al (1995) point out a weakness of the standard-Jones model, they argue that since all revenue changes in the

Jones models are assumed to be non-discretionary, the resulting measure of discretionary accruals does not reflect the impact of sales based manipulation.

3.2.4 Modified Jones model (1995)

As mentioned above, earnings management through sales can not be detected by the Jones model. In an attempt to capture sales-based manipulations, Dechow et al. (1995) proposed a modification to the standard Jones model. The first stage of estimating normal accruals is similar to the Jones model. In the second stage, the event period, NDA is computed by multiplying the estimated coefficient of the change in sales by the change in cash sales (the change in revenues minus the change in accounts receivable) instead of the change in sales (Ronen and Yaari, 2008).

$$\frac{NDA_{it}}{A_{it-1}} = \alpha_1 \left(\frac{1}{A_{it-1}} \right) + \alpha_2 \left(\frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} \right) + \alpha_3 \left(\frac{PPE_{it}}{A_{it-1}} \right) \quad (5)$$

Where:

ΔREC_{it} : Change in receivables for firm i in period t.

So Dechow added the variable ΔREC (net receivables in year t less receivables in year t-1 scaled by total assets at t-1) in the model of Jones. The modified Jones model assumes that all changes in credit sales in the event period are due to earnings management, they suggested this adjustment in order to avoid errors in estimating discretionary accruals when there is discretionary behaviour through sales. So the only difference between the Jones model and the Modified Jones model is that the modified version adjusts the change in revenues for the change in receivables in the event period. Therefore the estimation of earnings management should no longer be biased toward zero in samples where earnings management has taken place through the management of revenues. In other words, the modified Jones model tries to improve the inability of the Jones model to capture sales-based manipulation.

Dechow et al. (1995) assessed the ability of several accrual models (Healy, 1985, DeAngelo 1986, Jones, 1991, modified-Jones, 1995 and the industry model, 1991) to detect earnings management and found that the times-series modified-Jones model is the most powerful in detecting earnings management in a sample of firms the SEC (Security and Exchange Commission) identified for overstating earnings; the Modified Jones model has identified the firms selected by the SEC that have managed earnings. Also, Dechow et al. (1995) used the

standard deviation of total accruals as a benchmark with which discretionary accruals have been evaluated. In their opinion, a good discretionary accrual model must yield standard error (of the DA) below this level because in principle, nondiscretionary accruals take away the part of the variation of total accruals that is related to the explanatory variables. In their paper, Dechow et al. (1995) find that the standard error of the DA calculated with the Jones and modified Jones model was 9.2%. While the Healy, DeAngelo and the Industry models generated standard errors of over 20%. So the modified Jones model did not just identify the firms that have managed earnings, but also had the lowest standard error and thus is the best model in their opinion. This benchmark used by Dechow et al. (1995) will also be used in this thesis to compare the modified Jones model and the performance matching Jones model in order to evaluate which model is the best in detecting earnings management.

Also according to Guay et al. (1996) only the time-series Jones and modified-Jones model identify discretionary accruals that show performance-improving or opportunistic behaviour of managers. In their study they specified a simple earnings model and presented managerial discretion hypotheses in order to evaluate five discretionary accrual models. The five discretionary accrual models are similar to the ones evaluated in Dechow et al (1995).

The result of their study suggest that the Healy, DeAngelo, and industry models are not effective in isolating discretionary accruals that are consistent with opportunism, firm performance, or noise. While the Jones and modified Jones models yield discretionary accruals that are consistent with both performance-improving and opportunistic smoothing of earnings. Thus, there is evidence that these two models identify discretionary accruals (Guay, 1996).

3.2.5 Margin model (2000)

Peasnell et al (2000) examined the performance of the Jones and the modified Jones model as well in their study. In addition they developed a new cross-sectional model, called the Margin model. Similar to the standard-Jones and modified-Jones procedures, Peasnell et al (2000) estimate abnormal accruals using a two-stage procedure, where the first stage involves regressing accounting accruals on a vector of explanatory variables designed to capture unmanaged accruals. In contrast to the two Jones models, however, the explanatory variables included in their first-stage regression are derived from a formal model linking sales, accruals and earnings. So contrary to the Jones and modified-Jones model, Peasnell et al. (2000) estimate abnormal accruals (the difference between an expected level of accruals that a firm

should have and the actual accruals) as the residual from a linear regression of working capital accruals on current sales and current cash receipts from customers (i.e., current sales minus the current change in accounts receivable). Also, Peasnell et al. (2000) decided to exclude the depreciation variable from the accrual measures, assuming that depreciation is not likely to represent systematic earnings management. So the Margin model is based on working capital accruals and is defined as follow:

$$WCA_{it} = \lambda_0 + \lambda_1 REV_{it} + \lambda_2 CR_{it} + \eta_{it} \quad (6)$$

Where:

WCA_{it}: Working capital accruals.

REV_{it}: Total sales for firm *i* in period *t*.

CR_{it}: Total sales minus the change in trade debtors for firm *i* in period *t*.

λ₀, λ₁, λ₂: Regression coefficients.

η_{it} : Regression residuals for firm *i* in period *t*.

The primary advantage of this approach is its improved economic intuition, which should, in turn, lead to a more precise estimate of normal accruals. On the other hand, compared to the modified-Jones model procedure, is that unmanaged accruals are computed using a variable (REV) that may itself be contaminated by earnings management. With a result that the margin model will be less powerful than the modified-Jones model at detecting revenue-based and bad debt manipulation according to Peasnell et al. (2000).

3.2.6 Performance-matching Jones model (2005)

Previous research examines the specification and power of various discretionary accrual models (see Dechow et al., 1995), but not that of performance-matching accrual models (Performance matching on return on assets controls for the effect of performance on measured discretionary accruals). Kothari et al (2005) examined properties of discretionary accruals adjusted for a performance-matching firm's discretionary accrual, where performance is being matched on the basis of a firm's return on assets (ROA) and industry membership. By relying on a control sample to calibrate earnings management, the earnings management identified by Kothari's (2005) approach must be interpreted as 'abnormal' earnings management. In other words, adjusting for performance, firms identified as having managed earnings are in fact managing earnings at a rate higher than the comparison sample.

The linear-performance-matching model (i.e., ROA is added to the Jones and modified-Jones models as an additional regressor) embodies one important modification of the Jones and the modified Jones models: an additional regressor (ROA) for the lagged rate of return on assets.

$$NDA_{it} = \alpha_0 + \left(\frac{1}{A_{it-1}} \right) + \alpha_2 \left(\frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} \right) + \alpha_3 \left(\frac{PPE_{it}}{A_{it-1}} \right) + \alpha_4 \left(\frac{ROA_{it}}{A_{it-1}} \right) \quad (7)$$

Where:

ROA: Return on assets for firm i in period t .

So it is almost similar to the modified-Jones model, except that it is augmented to include ROA_{it} or ROA_{it-1} . Their motivation to use ROA as the matching variable is caused by the fact that Dechow et al. (1998) suggest that ROA controls for the effect of performance on measured discretionary accruals. Kothari suggest that this model might provide stronger results for earnings management. However, there are few studies yet that investigated the detection models of Peasnell (2000) and Kothari (2005) yet and which confirmed or rejected the strength/weaknesses of these models.

3.3 Conclusion and motivations

In this chapter the second sub-question have been answered: *What are the methods to detect earnings management?* Based upon the results of prior literature (Dechow 1991 and Guay 1996), the time series modified-Jones model will be used for the empirical analysis of earnings management in this study. Dechow (1991) and Guay (1996) both concluded that the modified-Jones model is the most powerful in detecting earnings management.

This time series approach estimates parameters for each firm in the sample using data from periods prior to the period, while parameters in the cross-sectional models are estimated each period for each firm in the event sample using data of firms in the same industry. Besides the modified-Jones model, the performance-matching Jones model will also be used, since the model of Kothari is almost similar to the modified-Jones model (except the additional control return on assets) and suggested to be a better model by Kothari. However, there are no studies yet who confirmed or rejected this assumption. I want to compare the results of this study by using both models to find out whether it will provide the same results. Also, I will compare the standard errors of the two models like Dechow et al. (1995) did in order to find out which of the two models is a better model in detecting earnings management. However, I want to emphasize that this is not the main theme of this study. The main question is still: *Is there*

significant evidence of earnings management surrounding non-routine and routine CEO changes of Dutch firms during the period 2003-2007. The choice for the modified-Jones model is based on several other considerations. First, it is one of the most commonly used models to estimate the non-discretionary accrual component despite more recent models (Peasnell 2000, Kothari 2005). So it will be easier to compare the results of this study to prior research. Second, the limitations of the other models outweigh the limitation of the modified-Jones model. Since Healy (1985) and DeAngelo (1986) as well assume total accruals proxy for discretionary accruals, and it is not possible that non-discretionary accruals are zero given a period. Also, Guay et al. (1997) provide evidence that both models are not effective in isolating discretionary accruals that are consistent with opportunism, firm performance, or noise. Compared to the Jones-model (1991), the modified-Jones model is improved since it takes sales-based manipulation into account. And compared to the margin model, Peasnell et al. (2005) stated the margin model will be less powerful than the modified-Jones model at detecting revenue-based and bad debt manipulation. Another important reason is already mentioned in paragraph 3.2.4., because according to a research done by Dechow et al. (1995), who assessed the ability of several accrual models to detect earnings management, they think that the modified-Jones model is the most powerful in detecting earnings management in a sample of firms the SEC (Security and Exchange Commission) identified for overstating earnings; the modified Jones model has correctly identified the firms selected by the SEC that have managed earnings. Also, the standard error calculated with the Jones and modified Jones model was 9.2%. Far below the standard error of the Healy, DeAngelo and the industry models who generated standard errors of over 20%.

Chapter 4: Literature review: CEO's incentives

4.1 Introduction

Prior literature predicts that there is a difference between the usage of earning management when CEO's are replaced on routine basis or non-routine basis (Pourciau 1993, Wells, 2002). The difference would exist because of the different incentives and opportunities of the outgoing and incoming CEO's, especially in case of non-routine turnover. Before introducing the hypotheses, the different motives between routine changes and non-routine changes will be discussed first, both for the outgoing and incoming CEO as well.

4.2 Different motives for in- and outgoing chief executive officers

4.2.1 Motives for outgoing CEO's

In 1987, R.F. Vancil writes a paper about the CEO succession in a sample of turnovers in the USA. About routine CEO changes he said: "Under this approach, the former and successor executives have the same goal: to make the incoming CEO successful. If the new executive is unsuccessful, it reflects badly on the former CEO's judgment and management skills" (Vancil, 1987). Furthermore, there are few opportunities for earnings management during a routine CEO change since the incoming CEO is most of the time an insider, so the incoming CEO is able to closely monitor the outgoing CEO. So Vancil (1987) asserts there will be no conflict of interest between the outgoing and incoming chief executive officer, and from that point of view there will be less chance for opportunistic earnings management behaviour. However, in some cases, in my opinion it is also possible that the former CEO does not want the incoming CEO to be successful. In that case, the former executive may wish to make it more difficult for the incoming executive to meet or exceed the (his) previously established performance.

A greater conflict of interest arises when executive changes are less orderly planned, because in that case the incentive for earnings management is more present. Pourciau (1993) states the following about non-routine changes: "A non-routine top executive change is one in which the company does not have adequate opportunity to select and groom a successor" (Pourciau, 1993). Because non-routine changes are most of the time unplanned, the company will not be able to take the time for structuring the CEO turnover. Example of a non-routine executive

change is a voluntary resignation. Executives who resign voluntarily might have several incentives to make income-increasing accounting decisions. First, the manager may wish to reinforce his or her reputation and send a signal to the new company (*Cover-up problem*). Second, the manager may be eligible for an annual bonus or other pay based on accounting earnings (*Horizon problem*). Third, the former executive may wish to make it more difficult for the replacement manager to meet or exceed the previously established performance (Wells 2002). However, because non-routine changes are most of the time unplanned, it is not just the company who will not be able to take the time for structuring the CEO turnover; it is also possible that the CEO has no time to perform earnings management.

4.2.2 Motives for incoming CEO's

In the case of routine executive changes, there is little conflict of interest between the old and the new executives, which might lead to less opportunistic earnings management.

Because during a routine, planned executive turnover, with a relatively ordered process of CEO succession, the former and successor CEO both have the same goal: to make the incoming CEO successful. If the new executive is unsuccessful, it reflects badly on the former CEO's judgment and management skills (Vancil, 1987). Furthermore, since the former CEO remains on the board of directors most of the time, he or she is in a position to monitor the new chief executive, which reduces the opportunity for earnings management. However, like already mentioned above, it is also possible that the former executive may wish to make it more difficult for the incoming executive to meet or exceed the previously established performance of the former executive.

In case of non-routine changes, the incoming CEO does have incentives to manage earnings. Vancil (1987) describes the role of a new CEO as follow: almost every CEO must face three critical tasks early in his tenure:

- (1) Managing the expectations of his officers and directors.
- (2) Taking ownership of the strategic thrust of the corporation during his tenure.
- (3) Building confidence among all parties by achieving an initial, realistic set of performance goals in his first year or two (Vancil, 1987).

To manage expectations and reach performance goals, the incoming CEO attempts to attribute past poor performance to the previous CEO since they are not held responsible for past performance. This can be accomplished through initial large discretionary write-offs to focus

attention on the inferior decisions of prior management. Previous research of Elliott and Shaw (1988) and Strong and Meyer (1987) provide support for the hypothesis that new executives make large discretionary write-offs. And also DeAngelo (1986) notes that in the period subsequent to a successful proxy contest, incoming managers take an ‘earnings bath’, which is evident from both non-cash write-offs and unexpected accruals, and that they attribute this to the former management. Another incentive to apply downward earnings management in the initial stage of their tenure is caused by the irrelevant of income during the first financial year of tenure. Formal compensation contract are not expected to come into operation until the second year of tenure (first full financial year).

4.3 Conclusion

In this chapter, different incentives have been discussed for CEO’s to manage earnings during a CEO turnover to provide an answer to the third sub-question. These incentives are in accordance with the positive accounting theory and the agency theory as mentioned in chapter two. Individuals are not just self-interested, but they are also acting in an opportunistic manner, with a result that the interest of the agent (CEO) is not always in line with the interest of the principal (shareholder) despite the use of contracts.

Furthermore, a distinction of incentives is made between CEO’s who are replaced on routine basis and CEO’s who are replaced on non-routine basis. This difference is made because of the different incentives and opportunities of the outgoing and incoming CEO, especially during a non-routine turnover. Outgoing CEO’s might have several incentives to make income-*increasing* accounting decisions during a non-routine turnover: Cover-up problem, horizon problem and the former executive may wish to make it more difficult for the replacement manager to meet or exceed the previously established performance. While the incoming CEO might have incentives to apply *downward* earnings management during a non-routine CEO change: The incoming CEO’s attempt to attribute past poor performance to the previous CEO to manage expectations and reach performance goals, since they are not held responsible for past performance (big batch accounting).

Now the incentives for CEO’s to manage earnings during a CEO turnover have been discussed in this chapter, prior research about the relation between earnings management and CEO changes will be discussed in the next chapter.

Chapter 5: Literature review: Earnings management & CEO changes

5.1 Introduction

The incentives for earnings management have been discussed in the previous chapter, and as mentioned, there is difference between incentives during a routine or non-routine change. In this thesis, earnings management will be investigated during a CEO turnover, with a distinction between a routine CEO turnover and a non-routine CEO turnover. However, it is not the first time that the relation between earnings management and chief executive officers changes will be investigated. Prior research was mainly US and Australian based, and in this chapter, each of the relevant prior literature will be discussed first and try to explore how the different researches are connected. The investigation of prior research will form the basic for the development of the hypothesis in this thesis; those hypotheses will be presented in the last section of this chapter.

5.2. Prior research about earning management and CEO changes

5.2.1 DeAngelo (1986)

DeAngelo's (1986) study investigates earnings management during 86 proxy fights contests for board seats on listed companies in the U.S. from 1970 till 1983. "A proxy contest is a political campaign in which stockholders who disagree with managerial policies seek election to the firm's board of directors" (DeAngelo, 1986). In her paper DeAngelo tested the predictions that (i) *managers report increased earnings during an election campaign*, and (ii) *these earnings reflect incumbents' accounting discretion*. She investigates these predictions in by using the accrual approach developed by Healy (1985) and DeAngelo (1986) in two periods: the year before the CEO change (T-1) and the year of the CEO change (T0). DeAngelo took the year-earlier comparison period accrual as an estimate of the 'normal' accrual in the event period. The difference in accruals serves as a proxy for the 'abnormal' accrual, or the extent to which managers deliberately alter their accounting choices to influence reported earnings (DeAngelo, 1986). In addition, DeAngelo concludes that incumbent executives manipulate trying to increase revenues during the proxy fight. During the election campaign, incumbent managers apparently exercise their accounting discretion to portray a favourable picture of their own performance to voting stockholders. DeAngelo concludes that successful dissidents taking 'a bath' when elected, which they typically blame

on the poor decisions of prior management, and report increasing profits the next year, to impress the public of their superior quality and which enables them to report an earnings ‘turnaround’ the following year.

5.2.2 Dechow and Sloan (1991)

Top-executives compensation contracts generally contain incentive provision designed to encourage executives to maximize firm value. These provisions link executive compensation to firm performance, which is usually measured using both stock-price performance and accounting-earnings performance (Dechow and Sloan, 1991). However, a common criticism of performance measures based on annual earnings is that they encourage management to focus on short-term performance rather than long-term value creation. That is the reason why Dechow’s study investigates the hypothesis that CEO’s manage investment expenditures to improve short-term earnings performance during their final years in office, also referred as the ‘horizon problem’. To investigate the hypothesis, they investigated a sample of CEO’s whose incentive compensation is based on earnings while focussing on the behaviour of R&D expenditures during the CEOs’ final years in office. This way they identified a sample size of 58 CEO changes occurred in industries in the U.S. that have significant ongoing R&D activities between 1979 and 1989. Their focus is on an eleven-year window around each of the CEO change (T-5, T0, T+5).

The results of their ordinary-least-square regression analysis suggest that CEO’s spend less on R&D during their final years in office, and in fact do respond to earnings-based incentives. The results are consistent with the view that firms’ contracting procedures do not completely eliminate opportunistic managerial behaviour. Executives and stockholders minimize agency problems by incurring bonding and monitoring costs, like the use of incentive compensations plans and the appointment of a board of directors. Because these bonding and monitoring activities are costly, executives’ opportunistic behaviour is not completely eliminated (Dechow and Sloan, 1991). Furthermore, reductions in R&D expenditures are mitigated through CEO stock ownership. There is no evidence that the reduced R&D expenditures are associated with either poor firm performance or reductions in investment expenditures that are capitalized for accounting purposes. In other words, the evidence supports the hypothesis that earnings-based incentives encourage executives to focus on short-term performance (The results suggest that executives who are in their final years as CEO spend less on R&D).

Like Dechow and Sloan (1991), I expect to find evidence that supports the hypothesis that earnings-based incentives encourage executives to focus on short-term performance, caused by the specific situation in the Netherlands, this subject will be further discussed in chapter six.

5.2.3 Pourciau (1993)

Pourciau's research is different because she classifies executive changes as routine or non-routine. Pourciau identified 73 organizations with non-routine executive changes, and for each of the firms, she examined earnings, accruals, cash flows, and special items and write-offs over a three-year period (the year prior to the change, the year of the change, and the following year, 1985-1988), and predicts that the degree of earnings management will be higher in times of non-routine executive changes. In case of a non-routine change, the company will not be able to plan an orderly process of CEO succession, due to inadequate time and or insufficient opportunity to select a successor CEO with the support of the incumbent. While 'routine' executive changes are those in which the company structures an orderly, well-planned process of turnover (Pourciau, 1993). Pourciau suggested that the circumstances during non-routine changes provide more incentives and opportunities for the use of earnings management than at the time of routine changes. Caused by the fact that non-routine executive changes are often unplanned, making it difficult for the directors and stockholders to structure the turnover in a way that minimizes the opportunities and incentives for earnings management. However, the results of her research provide less evidence for this expectation. Pourciau computed earnings, accruals, cash flows, and special items and write-offs for the executive change firms for the two years prior to the executive change year, the year of the change, and the year following the change. And contrary to expectations, departing executives record accruals and write-offs that decrease earnings during their last year. Both performance measures reveal a downward trend for the period $T-2$ through T . Possible explanations for this result are given by Pourciau: "The difficulty of controlling for firm performance, the manager's inability to predict his or her termination, and the increase in monitoring activities associated with poor firm performance." Furthermore, the results suggest that incoming executives record accruals and write-offs in a way that decreases earnings the year of the executive change and increases earnings the following year; this supports the hypothesis that new executives make large discretionary write-offs.

For this research I will also make a distinction between routine and non-routine chief executive changes because I do think that the incentives and opportunities for earnings management will be different in case of termination or a retirement for example. From the sample of 67 CEO changes of this thesis, 36 changes can be classified as non-routine.

5.2.4 Murphy and Zimmerman (1993)

The research of Murphy and Zimmerman (1993) is different from Dechow (1991) in the way that the objective of the research is to estimate the extent to which changes in potentially discretionary variables are more explained by poor economic performance rather than by direct managerial discretion (Murphy and Zimmerman, 1993). Instead of existing studies focusing on a single variable like Dechow and Sloan (1991), Murphy and Zimmerman examine and document the behaviour of a variety of financial variables surrounding CEO turnover, and consider the implications of simultaneous changes among the variables. They distinguish between different variables considerable managerial discretionary (like R&D, advertising and capital expenditures) and less discretionary (like earnings and assets).

Murphy and Zimmerman focus on three explanations of different behaviour for the three financial variables (R&D, advertising, capital expenditures) at the time of CEO turnovers: *the horizon problem*, *the cover up*, and *the big-bath opportunity*. The first explanation predicts increasing earnings in the last year before a known retirement. Cover up behaviour means managers who are threatened by termination try to increase earnings to avoid termination. Big bath accounting is already discussed in the second chapter. Big bath accounting includes the behaviour of incoming CEO to speculate for future profits.

Murphy and Zimmerman identified a large sample of 1000 departures in the US from 1971 till 1990. They find little evidence for earnings management prior to CEO departures; the declines in the growth rate of R&D, advertising, and capital expenditures preceding departures, measured by a pooled cross-sectional time-series regression, are better explained by the overall poor performance of the firm (no horizon problem or cover up), this in contrast with the results of Dechow (1991).

Furthermore, Murphy and Zimmerman found some evidence for ‘big bath’ accounting in relation with incoming CEO’s (the big bath opportunity): After controlling for firm performance, market-adjusted accounting accruals are lower in the fiscal year in which the incumbent CEO is replaced by his successor.

Murphy and Zimmerman give a short comment on their results; they conclude that “until a more accurate way of determining which CEO had control of the transition year is found, the

power of tests to detect managerial discretion and our ability to distinguish among the various explanations is compromised”. Murphy and Zimmerman criticise Pourciau (1993) because her research always assigns the transition year to the incoming CEO, while Murphy and Zimmerman assigned the transition year to the outgoing CEO.

In this research I will carefully study the exact date of the CEO turnover. However, the lack of clarity about the transition year will be a limitation of this research.

5.2.5 Wells (2002)

Wells (2002) investigates earnings management surrounding CEO changes for Australian firms, because there was a lack of “systematic Australian empirical evidence on this issue”. Compared to Wells’ research, I will compare the results of the main model of this study, the modified-Jones model, to the performance-matching model of Kothari (2005).

Wells’ sample selection comprises 77 CEO changes reported by 53 firms in the period of 1984 to 1994. Wells made use of the time series modified Jones model to estimate accruals because of the absence of alternatives. This is also the reason why I will use another more recent model (Kothari) to investigate whether both models yield the same results.

Like Pourciau (1993), Wells also make a distinction between routine and non-routine, because “prior literature has found that the motivations and opportunities for income manipulation vary with the circumstances of the CEO change” (Wells 2002). Wells classification between routine and non-routine is based on the fact whether the CEO change is described as a retirement (routine) or not (non-routine). Wells formulized six hypotheses, (H1) expecting increasing earnings management before a CEO change, (H2) more increasing earnings management before a CEO change in case of a non-routine change, (H3) decreasing reported income during the period of CEO change, (H4) more decreasing reporting income during the period of CEO change in case of a non-routine change, (H5) increasing reported income in the period after the CEO change, (H6) more increasing reported income in the period after the CEO change in case of a non-routine change. Just like Murphy and Zimmerman (1993), Wells finds no empirical support for CEO’s undertaking income increasing earnings management through accruals before (T-1) or after (T+1 and T+2) a CEO change, using either parametric and non-parametric tests (H1, H2, H5 and H6). However, Wells does find some support for the view that incoming CEO’s take an ‘earnings bath’ in the year of a CEO change, with the strongest results for CEO changes categorised as ‘non-routine’ (H3 and H4). In this setting, the incoming CEO is typically not associated with past decisions, implicit criticism of which

may be embodied in downwards earnings management. Moreover, the outgoing CEO is unable to constrain such behaviour (Wells, 2002). This occurs notwithstanding the relatively limited use of management compensation contracts and relatively small bonuses in Australia (Wells, 2002).

Based on the researches done by Pourciau (1993) and Murphy and Zimmerman (1993), I expect to find evidence for 'big bath accounting' in relation with incoming CEO's in the Netherlands, especially surrounding non-routine changes. Also I expect to find empirical support for CEO's undertaking upward earnings management before a CEO change in contrast with prior research, because Europe is the most aggressive region in replacing CEO's whose companies aren't performing well (cover up problem) and also, CEO's in the Netherlands receive the lowest rate of total CEO compensation.

5.2.6 Geiger and North (2006)

The research of Geiger and North's is different in that way that they investigate the relation between the entrance of a new CFO and earnings management, instead of a CEO. In their study they investigated the relationship between appointing a new CFO and the changes in a company's reported discretionary accounting accruals surrounding the turnover event. If individual CFOs maintain an ability to effectively shape the financial information reported, then the exercise of this influence would be manifest in changes in a company's reported discretionary accounting accruals surrounding the change in personnel (Geiger and North, 2006). By using a sample of 712 companies that appointed a new CFO in the period 1994 to 2000, Geiger and North identified discretionary accruals decreased, calculated by using the cross-sectional Jones model and the performance-matching procedure by Kothari, and using multivariate regressions to provide additional control for other accrual-related factors. They assessed annual levels and changes in levels of discretionary accruals from the year preceding the appointment of a new CFO to the year after their appointment, representing the time period under the full purview of the former CFO to the first year the new CFO had full responsibility for all company financial information. With a result that their sample of hiring firms report significantly higher discretionary accruals in the year prior to the new CFO appointment and significantly lower discretionary accruals in the first full reporting year under the new CFO. Also, they emphasize that their results are not confounded by the appointment of a new CEO during their CFO turnover examination period. Firms who did not appoint a new CEO during a CFO turnover period, report significant reductions in

discretionary accruals while firms concurrently appoint a new CEO together with a new CFO exhibit no significant reduction in discretionary accruals compared to firms who did not appoint a new CEO. However, it has to be noted that Geiger and North include all types of CEO changes regarding joint CEO and CFO turnover, so they did not make a separation between routine and non-routine changes.

5.3 Hypothesis development for this thesis

Based on prior literature discussed in this and the previous chapter, and the research question in this thesis, seven hypotheses are developed relating to this thesis. They can be classified in three categories: Earnings management in period T-1, earnings management in period T0 and earnings management in period T+1. Each of them will be introduced in the next part, but prior to the hypotheses, a short summary/recapitulation will be given to explain the development of the specific hypothesis.

Earnings management in period T-1

In the period before a CEO change, outgoing CEO's might have several incentives to make income-*increasing* accounting decisions, especially during a non-routine turnover. Those incentives are already mentioned in chapter four: Cover-up problem, horizon problem and the former executive may wish to make it more difficult for the replacement manager to meet or exceed the previously established performance. Also, because non-routine changes are most of the time unplanned, the company will not be able to take the time for structuring the CEO turnover. However, sometimes it is not just the company who will not be able to take the time for structuring the CEO turnover; it is also possible that the CEO has no time to perform earnings management because he did not expect to leave the company in such a short time.

During routine CEO changes, the former and successor executives both have the same goal: to make the incoming CEO successful. If the new executive is unsuccessful, it reflects badly on the former CEO's judgment and management skills (Vancil, 1987). Furthermore, there are few opportunities for earnings management during a routine CEO change since the incoming CEO is most of the time an insider, so the incoming CEO is able to closely monitor the outgoing CEO. So Vancil (1987) asserts there will be no conflict of interest between the outgoing and incoming chief executive officer, and from that point of view there will be less chance for opportunistic earnings management behaviour.

On the other hand, executives who resign voluntarily also might have several incentives to make income-increasing accounting decisions. As discussed in chapter four, the manager may

wish to reinforce his or her reputation and send a signal to the new company (*Cover-up problem*). Second, the manager may be eligible for an annual bonus or other pay based on accounting earnings (*Horizon problem*). Third, the former executive may wish to make it more difficult for the replacement manager to meet or exceed the previously established performance (Wells 2002).

Based on these considerations the following hypotheses relating to the incumbent CEO's accounting decisions are tested:

H1: In the period before a non-routine CEO change ($T-1$), prior CEO's undertake earnings management to increase reported income.

H2: In the period before a routine CEO change ($T-1$), prior CEO's do not undertake earnings management to increase reported income.

Earnings management in period T_0

Also in the period of a CEO change (T_0), CEO's might have incentives to manage earnings. The incoming CEO might have incentives to apply *downward* earnings management during a non-routine CEO change: The incoming CEO's attempt to attribute past poor performance to the previous CEO to manage expectations and reach performance goals, since they are not held responsible for past performance (big batch accounting). Another incentive to apply downward earnings management in the initial stage of their tenure is caused by the irrelevance of income during the first financial year of tenure. Formal compensation contract are not expected to come into operation until the second year of tenure (first full financial year).

However, in the case of routine executive changes, there is little conflict of interest between the old and the new executives, which might lead to less opportunistic earnings management. Because during a routine, planned executive turnover, with a relatively ordered process of CEO succession, the former and successor CEO both have the same goal: to make the incoming CEO successful. If the new executive is unsuccessful, it reflects badly on the former CEO's judgment and management skills (Vancil, 1987). Furthermore, since the former CEO remains on the board of directors most of the time, he or she is in a position to monitor the new chief executive, which reduces the opportunity for earnings management. On the other hand, it is also possible that the former executive may wish to make it more difficult for the incoming executive to meet or exceed the previously established performance of the former

executive. However, it has to be noticed that until now there is a still lack of clarity about the assignation of the transition year during a CEO change. While Pourciau (1993) assigns the transition year to the incoming CEO in her research, Murphy and Zimmerman (1993) assign the transition year to the outgoing CEO. In this thesis I will also assign the transition year to the incoming CEO like Pourciau (1993). This choice is based on the incentives mentioned above: Incoming CEO's are not held responsible for past performance and the irrelevance of income during the first year of tenure. However, in reality, it is not always sure who has the responsibility for income decreasing earnings management during a CEO change. As noted before, Murphy and Zimmerman criticise Pourciau (1993) because she always assigns the transition year to the new CEO, while that's not always the case. Furthermore, when the new CEO is appointed at the beginning of the year, he will have a lot more time to manage earnings then when appointed at the end of the year.

Taking these considerations in account, the following hypotheses in the year of the CEO change are tested:

H3: In the period of a non-routine CEO change (T0), earnings management is used to decrease reported income.

H4: In the period of a routine CEO change (T0), earnings management is not used to decrease reported income.

(Note: When the transition year will be assigned to the outgoing CEO like Murphy and Zimmerman did, the hypotheses will be as follow: In the period of a non-routine CEO change (T0), earnings management is used to increase reported income (H3). In the period of a routine CEO change (T0), earnings management is not used to increase reported income (H4)).

Earnings management in period T+1

In subsequent periods, T+1, it is expected that any form of earnings management in prior years will be reversed (due to the incentives of CEO's to maximize their bonus compensation). With a result that the following hypotheses are tested:

H5: In the periods subsequent to a CEO change (T+1), CEO's appointed as part of a non-routine change, undertake earnings management to increase reported income.

H6: In the periods subsequent to a CEO change (T+1) CEO's appointed as part of a routine change, undertake earnings management to increase reported income.

In summary, the new CEO is expected to undertake earnings management in the year of the CEO change to decrease reported income (big bath accounting). The expectation is that this

will be most pronounced for CEO's appointed as part of a non-routine change. Also, it is expected that the effects of earnings management in the change year will reverse in subsequent periods. Those hypotheses will be tested by using the modified-Jones model and the performance-matching model to find out whether it provides the same results. Because according to Kothari (2005), the performance-matching Jones model might provide stronger results for earnings management due to the additional regressor ROA. Their motivation to use ROA as the matching variable is caused by the fact that Dechow et al. (1998) suggest that ROA controls for the effect of performance on measured discretionary accruals. By testing the following hypothesis, we will be able to find out whether the two detection models provide other results.

H7: The performance-matching Jones model does not provide the same results compared to the modified-Jones model.

Chapter 6: Research design

6.1 Introduction

In chapter four and five, the relevant literature and the hypothesis development related to this thesis have been discussed. This chapter presents the research methodology employed. The chosen detection method (modified-Jones model and performance matching Jones model) and the sample selection will be discussed.

6.2 Research method

Modified-Jones model

As already discussed in chapter three, the modified-Jones model will be used as a basic for further investigation and to test the hypotheses mentioned in chapter five. The use of the time series modified-Jones model requires the application of the model over an estimation period, with the estimated parameters then forming the basis for determining expected accruals in the test period. However, before calculating non-discretionary accruals, total accruals have to be calculated first, which are defined as the difference between net income before extraordinary items and operating cash flows:

$$\frac{TA_{it}}{A_{it-1}} = \frac{EXBI_{it} - CFO_{it}}{A_{it-1}} \quad (1)$$

Where:

- TA_{it}:** Total accruals
EXBI_{it}: Earning before Extra Ordinary Items for firm *i* in year *t*.
CFO_{it}: Operating Cash Flows for firm *i* in year *t*.
A_{it-1}: Total Assets for firm *i* in year *t*.

Then, a two-stage approach is applied to separate the normal and abnormal accruals. In the first stage, the estimation stage, it is assumed that in the prior years (in this thesis T-2 until T-7) no discretionary accruals exist or where it is expected to average to zero. The parameters are estimated by regressing the total observed accruals (TA) on the change in sales (ΔREV) and the gross level of property, plant and equipment (PPE). The parameters are estimated for the sample by using the longest available time-series data prior to the event year (in this thesis 5 years). The estimated coefficients are used to calculate the nondiscretionary component in TA. These coefficients are the level at which the associated variable influences the NDA. It is

reasonable to say that these coefficients differ per industry. Estimates of the firm-specific parameters, α_1 , α_2 and α_3 , are generated using the following (original Jones) model in the estimation period:

$$\frac{EA_{it}}{A_{it-1}} = \alpha_1 \left(\frac{1}{A_{it-1}} \right) + \alpha_2 \left(\frac{\Delta REV_{it}}{A_{it-1}} \right) + \alpha_3 \left(\frac{PPE_{it}}{A_{it-1}} \right) + \varepsilon_{it} \quad (2)$$

Where

- EA_{it}:** Expected total accruals for firm *i* in period *t*.
ΔREV_{it}: Change in revenues for firm *i* in period *t*.
PPE_{it}: Property plant and equipment for firm *i* in period *t*.
A_{it-1}: Total assets in for firm *i* period in period *t-1* (use of assets as the deflator is intended to mitigate heteroskedasticity, if the random variables have different variances, in residuals).
α₁, α₂, α₃: Firm-specific parameters.

In the second stage, the discretionary component of the total accruals is determined by using the parameters that have been estimated in the first stage of the model. In this stage, the non-discretionary accruals (NDA) are determined by combining the parameters with ΔREV-ΔREC and PPE:

$$\frac{NDA_{it}}{A_{it-1}} = \alpha_1 \left(\frac{1}{A_{it-1}} \right) + \alpha_2 \left(\frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} \right) + \alpha_3 \left(\frac{PPE_{it}}{A_{it-1}} \right) \quad (3)$$

Where:

- NDA_{it}:** Non-discretionary accruals for firm *i* in period *t*.
ΔREC_{it}: Change in receivables for firm *i* in period *t*.

After the non discretionary accruals have been determined, the discretionary accruals can be determined by subtracting NDA from TA:

$$DA_{it} = TA_{it} - NDA_{it} \quad (4)$$

Where:

- DA_{it}:** Discretionary accruals for firm *i* in year *t*.
TA_{it}: Estimated total accruals for firm *i* in year *t*. (see equation 1)

NDA_{it}: Estimated non-discretionary accruals for firm *i* in year *t*. (see equation 3)

Performance-matching model

The second model is the performance-matching Jones model. This model will be used to compare the results of the modified-Jones model to find out whether both models yield the same results. Also the standard errors of the two models will be compared in order to find out which model is the best in detecting earnings management. However, this is not the main objective of this study.

The performance-matching Jones model is similar to the modified-Jones models, except that it is augmented to include ROA_{it}.

$$NDA_{it} = \alpha_0 + \left(\frac{1}{A_{it-1}} \right) + \alpha_2 \left(\frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} \right) + \alpha_3 \left(\frac{PPE_{it}}{A_{it-1}} \right) + \alpha_4 \left(\frac{ROA_{it}}{A_{it-1}} \right) \quad (5)$$

As noted before, their motivation to use return on assets as a performance measure is caused by the fact that Dechow et al. (1998) suggest that ROA controls for the effect of performance on measured discretionary accruals (Kothari et al, 2005).

6.3 Sample selection

Information about CEO changes for the last years is more difficult to find than expected. It would be a lot of work to read every individual annual report searching for management changes. CEO changes will be identified by using a list of the annually best paid CEO's at Dutch companies, this list can be found on the website of the Dutch newspaper Volkskrant and is running since 2002. By comparing the same list for different years, CEO changes will be identified. This procedure has also been applied to another list available on the website www.bestuursvoorzitter.nl (also running since 2002). This site does not just contain the best paid CEO's, but the rewards of all CEO's of the companies on the Euronext Amsterdam. This way it is possible to identify even more CEO changes. Besides these two lists, other CEO changes are identified by using the annual list of FEM Business which contains the top ten CEO's of large companies (also not listed companies) who are likely to depart that year. So the sample selection is a mix of listed and large private companies.

These changes are confirmed by reference to firms' annual reports and resulted in the identification of 93 CEO changes. However, from this sample I have eliminated seven CEO

changes that occurred more than once within a range of two years, because it would not provide sufficient evidence to test the hypotheses, which contain three periods, they before a CEO change (T-1), the year of a CEO change (T0) and the year after a change (T+1). Another six CEO changes are eliminated, because the CEO change preceded a takeover and subsequent financial statements are unavailable. And two more are deleted from the list due to insufficient background information about the cause of the CEO change; in other words, it is not possible to classify the CEO change as routine or non-routine due to lack of information. And also, due to the nature of their operations and the inapplicability of the models used to estimate expected accruals, eleven changes in the 'investment' 'finance services and insurance' sectors are deleted from the sample. These exclusions result in the identification of a sample size of 67 CEO changes reported by 62 firms. The whole list of firms can be found in appendix B. The period for which CEO changes are selected is from 2003 till 2007. And as mentioned in the introduction of this thesis, 2008 will not be part of this thesis. Because it is not clear whether the CEO's who were appointed in 2008, are still employed in 2009.

As already mentioned in the previous chapter, I decided to separate those CEO changes between routine and non-routine changes, according to the definition of Pourciau (1993).

- *'Routine' executive changes include:*

- 1) *those changes which were described in the annual reports or in specialized literature as retirements*
- 2) *resignations when the executive was reported to have remained on the company's board of directors or continued to serve the company in some other capacity*

- *'Non-routine' executive changes include:*

- 1) *all other sort of chief executive changes*

To make this distinction I have collected information about the CEO change from newspaper reports, annual reports and press releases. However, in some cases it was not possible to make this distinction due to insufficient information. And as mentioned above, I eliminated two CEO changes that could not be classified as a routine or non-routine change due to insufficient information. A summary of these changes are presented in figure 3, 4 and 5. Figure 3 indicates that CEO changes during the period 2003 to 2007. Figure 4 shows the CEO changes classified as routine and non-routine. And figure 5 presents the classification of the total sample of companies into listed or non-listed.

Figure 3: CEO changes by year

Financial year ended	CEO changes	
	No.	%
2003	19	28,4
2004	13	19,4
2005	13	19,4
2006	9	13,4
2007	13	19,4
Total	67	100

Figure 4: Nature of CEO changes determined by reviewing newspaper reports and annual reports at the time of and subsequent to the CEO change

Nature of CEO change	Number of changes
Routine	31
Non-routine	36
Total	67

Figure 5: Total sample of companies classified as listed or non-listed.

Nature of companies	Number of companies
Listed companies	40
Non-listed companies	27
Total	67

6.4 Limitations

Despite carefulness and extensiveness, this research has to deal with a couple of limitations. One limitation in this study could be that I did not take the implementation of IFRS into account. I have tried to mitigate this problem by obtaining a larger sample size in combination with a shorter time period, for instance: 2006-2008. However, after using Databank, Thomson One Bank and making an appointment with the Data team at the Erasmus University of Rotterdam, I had to conclude that it was not possible to increase the sample size in an easier way and take a shorter time period. However, based on prior research (Van Tendeloo and

Vanstraelen, 2005) it is assumed that the implementation of IFRS is not associated with lower earnings management.

Van Tendeloo and Vanstraelen (2005) investigated whether German companies that have adopted IFRS engage significantly less in earnings management compared to German companies reporting under German GAAP, while controlling for other differences in earnings management incentives. Their sample, consisting of German listed companies, contains 636 firm-year observations relating to the period 1999-2001. The results of their study suggest that adopting IFRS does not constitute a significant constraint on earnings management, as measured by the level of discretionary accruals (the discretionary accruals were estimated by using the cross-sectional Jones model). In fact, the results of their study suggest that IFRS-adopters turn more to discretionary accruals to manage earnings (without the possibility of using reserves to manage earnings). Moreover, it appears that companies that have adopted IFRS engage more in earnings smoothing. However, this increase in earnings smoothing with the adoption of IFRS is significantly reduced when the company has a Big 4 auditor (van Tendeloo and Vanstraelen, 2005).

A possible explanation (and a comparison with the Dutch situation) for the result of the research done by van Tendeloo and Vanstraelen (2005) is that the German GAAP used to be much stricter compared to the Dutch GAAP. German accounting is widely presumed to be more conservative compared to the Netherlands. The objectives of the German accounting system are to preserve equity, protect creditors and facilitate the computation of taxable income (van Tendeloo and Vanstraelen, 2005). In Germany the influence of the taxes on the annual account has always been large. Financial statements form the basis for tax accounts. The consequence is that German companies mostly report their profits more conservative to minimise their tax obligations. In the Netherlands the influence of taxes on the annual account was less strong than in Germany and therefore less conservative. In other words, the German GAAP used to be much stricter compared to the Dutch GAAP, and the implementation of (the more flexible) IFRS might explain the increase of earnings management in Germany.

Another limitation might be the assignation of the transition year, because during a CEO change (the transition year); it is not always known who has the responsibility (for income decreasing earnings management) during the of a CEO change. Prior research also recognized this problem. As noted before, Murphy and Zimmerman criticise Pourciau (1993) because she always assigns the transition year to the new CEO, while that's not always the case. Furthermore, when the new CEO is appointed at the beginning of the year, he will have a lot more time to manage earnings than when appointed at the end of the year.

The last limitation in this study is the distinction between a routine and non-routine change. In some cases it might occur that the company is not publishing all the information about a CEO change, with a result that it is not possible to guarantee that the given reason is the real reason for the departure. In that case, it might occur that some routine change may be falsely classified as non-routine, or vice versa. However, a lot of research has been done before making the classification, based on news reports, annual reports and press releases. Also, two CEO changes were eliminated due to lag of sufficient information about the CEO change.

Chapter 7: Results and analysis

7.1 Introduction

In this chapter, the empirical research will be carried out and presented. By using the modified Jones model and the performance matching Jones model, the hypotheses mentioned in chapter five will be tested in order to answer the main research question; that is, whether there is significant evidence of earnings management surrounding CEO changes in the Netherlands. Also, the results of the two different models, the Modified Jones model and the performance matching Jones model, will be presented. The results of those two models will be investigated and compared in order to obtain more knowledge about the power of the two discretionary accrual models to detect earnings management.

7.2 Modified Jones model

7.2.1 Outliers

The sample size and the detection models have already been discussed in the previous chapters. However, before starting our analysis, the outliers have to be removed first. Outliers are observations that are numerically distant from the rest of the data Barnett (1994). To remove the outliers, the method of Moore et al. (2003) will be used. Moore et al. (2003) use the $1,5 * IQR$ (inter quartile range) rule in order to discover outliers in data sets. The rule is based on the IQR, which is defined as the difference between the Q1 (25%) and Q3 (75%). The percentiles in thesis and which have been used to calculate the IQR are presented in table 1A. Data with an amount of 1,5 times IQR above Q3 or under Q1 are seen as outliers and have to be removed. Applying this rule to the sample of this thesis has resulted in 2 outliers, which have been removed.

7.2.2 Descriptive statistics

Table 1A presents the descriptive statistics for the sample of CEO changes in the year of CEO change ($T=0$). Table 1A reports the mean, the median, the minimum and maximum, and the percentiles, those values are the unscaled values. The percentiles in this table have been used to calculate the IQR. And for the remaining part of this thesis, just the mean variables will be used for calculation of the non-discretionary and the discretionary accruals. Table 1B reports the same values scaled by lagged total assets. The results of the descriptive statistics indicate poor performance with a mean return on total assets of 4.36 percent for the whole sample of

CEO changes. This number is even lower when just focussing on non-routine change: -8.1 percent (Table 1B). Both numbers are lower than that reported by Wells (2002). Also, according to the tables below, there is a big difference between the minimum and maximum values. An explanation could be that the sample used in this thesis does not just contain large Dutch listed companies, but also some smaller Dutch private companies.

Table 1: Descriptive statistics on sample CEO changes in the year of CEO change (T=0)

Table 1A: Absolute (unscaled) values expressed in Euro's in 2007. All amounts in €000.000 (N=65).

	EXBI-CFO	Total assets	Δ REV- Δ REC	PPE
Mean	-309,81	6667,88	317,22	5655,58
Median	-42,85	814,34	22,38	403,40
Minimum	-5926	8	-15561	5
Maximum	76	133632	31717	142360
Percentiles				
25	-123,67	307,99	-33,36	162,57
50	-42,85	814,34	22,38	403,40
75	-2,50	2626,01	88,98	1682,83

Table 1B: Values scaled by lagged total assets per category of CEO change

Total sample	EXBI-CFO	Δ REV- Δ REC	PPE	ROA
Mean	-,050297	,043580	,653610	,0006894
Std. Deviation	,0769253	,3309741	,4174187	,00242562
Routine changes				
Mean	-,042266	-,081869	,691868	,0004313
Std. Deviation	,0897401	,3437862	,4446963	,00160923
Non-routine changes				
Mean	-,058729	,175302	,613439	,0009603
Std. Deviation	,0619244	,2656149	,3941299	,00308379

7.2.3 Parameters

Before calculating the non-discretionary accruals, the estimated total accruals have to be calculated first. This is done by using equation 1 in chapter 6, which is defined as the difference between net income before extraordinary items and operating cash flows scaled by total assets. Table 2 presents the calculated estimated total accruals, which will be used to calculate the parameters.

Table 2: Estimated total accruals: difference between net income before extraordinary items and operating cash flows scaled by total assets.

		EXBI-CFO
Mean		-,050297
Median		-,052787
Std. Deviation		,0769253
Minimum		-,2751
Maximum		,1370
Percentiles	25	-,082099
	50	-,052787
	75	-,016202

After the estimated total accruals have been calculated, the first stage of the modified Jones model, the estimation stage, can be applied. The parameters are estimated by regressing the total observed accruals (TA) on the change in sales (ΔREV) and the gross level of property, plant and equipment (PPE):

$$\frac{EA_{it}}{A_{it-1}} = \alpha_1 \left(\frac{1}{A_{it-1}} \right) + \alpha_2 \left(\frac{\Delta REV_{it}}{A_{it-1}} \right) + \alpha_3 \left(\frac{PPE_{it}}{A_{it-1}} \right) + \varepsilon_{it}$$

The estimated coefficients are presented in table 3.

Table 3: Summary of the results for estimating the first stage of the modified Jones model.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,064	,034		-1,890	,068
	1/Ait-1	1,208	,728	,292	1,659	,107
	?REV/TA	-,020	,075	-,045	-,263	,794
	PPE/TA	,007	,041	,030	,169	,867

a. Dependent Variable: TA

Model summary

Model	R	R Square	Adjusted R Square
1	,288 ^a	,083	-,003

a. Predictors: (Constant), PPE/TA, ?REV/TA, 1/Ait-1

Those estimated coefficients will be used to calculate the nondiscretionary component in TA as shown in the equation below; more details about the calculation will be provided in paragraph 7.2.4.

$$\frac{NDA_{it}}{A_{it-1}} = 1,208 \left(\frac{1}{A_{it-1}} \right) - 0,020 \left(\frac{\Delta REV_{it}}{A_{it-1}} \right) + ,007 \left(\frac{PPE_{it}}{A_{it-1}} \right)$$

It has to be noticed that there is a difference between the unstandardized coefficients and the standardized coefficients. With the latter one, it is possible to investigate which of the independent variables have a greater effect on the dependent variable in a multiple regression analysis, when the variables are measured in different units of measurement. However, this is not applicable to this thesis and thus the unstandardized coefficients have been used. Also the R and R Square are shown in table 3, which are respectively 28.8% and 8.3%. Also, it has to be noticed that the R Square, which is the proportion of variance in the dependent variable which can be predicted from the independent variables, has a low value which indicates that the majority of the firms used to estimate accruals have limited explanatory power.

7.2.4 Evidence of earnings management

In the previous paragraph, the parameters have already been estimated as shown in table 3; those estimated coefficients have been used in the second stage to calculate the non discretionary components in the total accruals. In this stage, the non-discretionary accruals (NDA) are determined by combining the parameters with the scaled values $\Delta REV - \Delta REC$ and PPE. After the non discretionary accruals have been determined, refer to appendix C for the variables, it was possible to determine the discretionary accruals by using equation 4 in chapter 6, i.e. subtracting NDA from TA. The results are shown in table 4, which shows us the results of tests of earnings management through discretionary accruals.

Table 4: Unexpected (discretionary) accruals scaled by lagged total assets. The Wilcoxon Sign Rank test has been used to test whether unexpected accruals are different from zero at a significant level of 10 percent.

		Total sample (N = 65)	Sign	Non-routine (N = 35)	Sign	Routine (N = 30)
T-1	Mean	-0,04806	H1 -	-0,06144	H2 +	-0,03377
	Median	-0,04841	H1 -	-0,05848	H2 +	-0,00418
T=0	Mean	-0,03922	H3 +	-0,03174	H4 +	-0,04587
	Median	-0,04351	H3 +	-0,03826	H4 +	-0,04745
T+1	Mean	-0,04486	H5 -	-0,06788	H6 -	-0,02243
	Median	-0,03648	H5 -	-0,04811	H6 -	-0,01453

+ : the results are conform the hypotheses.

- : the results are not conform the hypotheses.

The year prior to the CEO change (T-1)

The hypotheses that are related to this period are:

H1: In the period before a non-routine CEO change (T-1), prior CEO's undertake earnings management to increase reported income.

H2: In the period before a routine CEO change (T-1), prior CEO's do not undertake earnings management to increase reported income.

As shown in table 4, the mean standardised discretionary accruals are income decreasing in the period prior to the CEO change (T-1) for the total sample (-0,048), the non routine sample (-0,061) and the routine sample (-0,034) as well. However, none of these values are significantly different from zero using the Wilcoxon Rank Tests ($p = 0,41$ for the total sample, $p = 0,27$ for the non routine CEO changes and $p = 0,39$ for the routine CEO changes). So there is no support for the outgoing CEO to undertake income increasing earnings management during a non routine CEO change through accruals in the period prior to the CEO change (H1). And there is also no evidence that the prior CEO does not undertake earnings management to increase reported income during a routine CEO change (H2).

The year of the CEO change (T=0)

The hypotheses that are related to this period are:

H3: In the period of a non-routine CEO change (T0), earnings management is used to decrease reported income.

H4: In the period of a routine CEO change (T0), earnings management is not used to decrease reported income.

In the period of the CEO change (T=0), mean standardised unexpected accruals are income decreasing for the total sample (-0,039), as well as for the non-routine and routine CEO changes in all three the samples report income decreasing unexpected accruals (respectively -0,032 for the non routine CEO changes and -0,046 for the routine CEO changes). The result for the non routine CEO change sample is in line with the third hypothesis. However, again it is not significantly different from zero using non-parametric statistics ($p = 0,164$). The result for the routine CEO change sample is in the opposite direction to that hypothesised, but also this is not significant at the significant level of 10 percent ($p = 0,475$). Also the result of the full sample is not significantly different form zero ($p = 0,326$).

The year after the CEO change (T+1)

The hypotheses that are related to this period are:

H5: In the periods subsequent to a CEO change (T+1), CEO's appointed as part of a non-routine change, undertake earnings management to increase reported income.

H6: In the periods subsequent to a CEO change (T+1) CEO's appointed as part of a routine change, undertake earnings management to increase reported income.

In the subsequent period, T+1, again all three the samples report income decreasing unexpected accruals (-0,045, -0,068 and -0,022). And none of them are significantly different form zero at the 10 percent level using non-parametric tests ($p = 0,291$ for the total sample, p

= 0,244 for the non routine CEO changes and $p = 0,486$ for the routine CEO changes). Accordingly, there is no support for the hypothesis that CEO's appointed as part of a non routine change, undertake earnings management to increase reported income (H5); and neither for the hypothesis that CEO's appointed as part of a routine change undertake earnings management to increase reported income (H6).

7.3 Linear performance matched Jones model

Before analyzing the empirical results, the same steps as described in paragraph 7.2 will be applied to the performance matching Jones model. As mentioned before, the only difference between the modified Jones model and the performance matching Jones model is the additional variable ROA. It is added because Dechow et al. (1998) suggest that ROA controls for the effect of performance on measured discretionary accruals. Kothari et al. (2005) suggest that this model might provide stronger results for earnings management. In this part, I will use the performance matching Jones model to detect earnings management during CEO changes in the Netherlands, and I will compare the results of this model against the results of the modified Jones model discussed in the previous part. It has to be noticed that the first stage of the performance matching Jones model is similar (except for the additional variable ROA) to the modified Jones model and thus has already been discussed in paragraph 7.2.1. The results of calculating the parameters are shown in appendix B.

So this part will continue with the second stage of the model, which is calculating the non-discretionary part of the total accruals by using the following equation:

$$\frac{NDA_{it}}{A_{it-1}} = -0,071 + 1,228 \left(\frac{1}{A_{it-1}} \right) - 0,014 \left(\frac{\Delta REV_{it}}{A_{it-1}} \right) + 0,014 \left(\frac{PPE_{it}}{A_{it-1}} \right) + 1,579 \left(\frac{ROA_{it}}{A_{it-1}} \right)$$

7.3.1. Evidence of earnings management

Table 5 reports the descriptive statistics for the sample of CEO changes in the year of CEO change (T=0). The only difference between this table and table 1B is the Return on Assets scaled by lagged total assets that has been added to the table. Looking at the results, it can be concluded that the numbers for ROA are low, and thus the impact would probably be also low on the level of mean standardised discretionary accruals. Whether this will be the case is shown in table 6.

Table 5: Descriptive statistics: Values scaled by lagged total assets per category of CEO change

Total sample	EXBI-CFO	REV- REC	PPE	ROA
Mean	-,050297	,043580	,653610	,0006894
Std. Deviation	,0769253	,3309741	,4174187	,00242562
Routine changes				
Mean	-,042266	-,081869	,691868	,0004313
Std. Deviation	,0897401	,3437862	,4446963	,00160923
Non-routine changes				
Mean	-,058729	,175302	,613439	,0009603
Std. Deviation	,0619244	,2656149	,3941299	,00308379

Table 6: Unexpected (discretionary) accruals scaled by lagged total assets. The Wilcoxon Sign Rank test has been used to test whether unexpected accruals are different from zero at a significant level of 10 percent.

		Total sample (N = 65)	Sign	Non-routine (N = 35)	Sign	Routine (N = 30)
T-1	Mean	-0,04827	H1 -	-0,06125	H2 +	-0,03441
	Median	-0,04841	H1 -	-0,05850	H2 +	-0,00419
T=0	Mean	-0,03992	H3 +	-0,06595	H4 +	-0,04687
	Median	-0,04370	H3 +	-0,04502	H4 +	-0,04755
T+1	Mean	-0,04484	H5 -	-0,06595	H6 -	-0,02332
	Median	-0,03649	H5 -	-0,04502	H6 -	-0,01456

Table 6 shows us the level of standardised discretionary accruals as calculated by the performance matching Jones model. As expected, the difference between the results of the modified Jones model and the performance matching Jones model is very little. Because like the results of the modified Jones model, the mean standardised discretionary accruals are income decreasing in the year prior to the CEO change, during the year of CEO change, and in the subsequent period for the total sample, the non routine and the routine CEO changes as well. However, the significant levels still have to be calculated to find out whether the hypothesis results are also the same as the modified Jones model. This will be done by using the Wilcoxon Rank test to test whether unexpected accruals are different from zero at a significant level of 10 percent.

Table 7: Significant levels are calculated by using the Wilcoxon Rank test at a significant level of 10 percent.

		Total sample (N = 65)	Non-routine (N = 35)	Routine (N = 30)
T-1	<i>p</i>	0,411	0,279	0,383
T=0	<i>p</i>	0,312	0,477	0,144
T+1	<i>p</i>	0,314	0,253	0,474

The year before the CEO change (T-1)

The hypotheses that are related to this period are:

H1: In the period before a non-routine CEO change (T-1), prior CEO's undertake earnings management to increase reported income.

H2: In the period before a routine CEO change (T-1), prior CEO's do not undertake earnings management to increase reported income.

According to table 7, it can be concluded that the performance matching Jones model and the modified Jones model indeed yield the same results. This is in contrast with the last hypothesis H7: *The performance-matching Jones model does not provide the same results compared to the modified-Jones model.* None of the values are significantly different from zero using the Wilcoxon Rank Tests just like the modified Jones model. Thus, there is no support for the outgoing CEO to undertake income increasing earnings management during a non routine CEO change through accruals in the period prior to the CEO change (H1). And there is also no evidence that the prior CEO does not undertake earnings management to increase reported income during a routine CEO change (H2).

The year of the CEO change (T=0)

The hypotheses that are related to this period are:

H3: In the period of a non-routine CEO change (T0), earnings management is used to decrease reported income.

H4: In the period of a routine CEO change (T0), earnings management is not used to decrease reported income.

Furthermore, in the period of the CEO change (T=0), mean standardised unexpected accruals are income decreasing for the total sample, as well as for the non-routine and routine CEO changes in all three the samples. However, again the numbers are not significantly different from zero using non-parametric statistics like the modified Jones model. Accordingly, it can be concluded that there is no support for the hypothesis that CEO's appointed as part of a non routine change, undertake income decreasing earnings management (H3); and neither for the hypothesis that CEO's appointed as part of a routine change do not undertake earnings management to decrease reported income (H4).

The year after the CEO change (T+1)

The hypotheses that are related to this period are:

H5: In the periods subsequent to a CEO change (T+1), CEO's appointed as part of a non-routine change, undertake earnings management to increase reported income.

H6: In the periods subsequent to a CEO change (T+1) CEO's appointed as part of a routine change, undertake earnings management to increase reported income.

Finally, since none of the values are significantly different from zero using the Wilcoxon Rank Tests in the subsequent periods, there is no support for the hypothesis that CEO's appointed as part of a non routine change, undertake earnings management to increase reported income (H5); and neither for the hypothesis that CEO's appointed as part of a routine change undertake earnings management to increase reported income (H6).

7.4 Result analysis

Since the modified Jones model and the performance matching Jones model yield the same results, the results will be analyzed all together for every period. The results will be compared to the results of prior research and to the formulated expectation as stated in chapter 5. Then, the results will be evaluated. Because as discussed in paragraph 7.3, the mean standardised discretionary accruals are income decreasing in the year prior to the CEO change, during the year of CEO change, and the subsequent period for the total sample, the non routine and the routine CEO changes using both models. Those results are inconsistent with the expectation.

The year before the CEO change (T-1)

Prior research (Vancil 1987, Wells 2002, Murphy and Zimmerman 1993 and Pourciau 1993) predict that the degree of earnings management will be higher in times of non-routine executive changes, they suggested that the circumstances during non-routine changes provide more incentives and opportunities for the use of earnings management than at the time of routine changes. The results of those researches were different. While the researches of Murphy and Zimmerman (1993), Wells (2002) and Pourciau (1993) found little evidence for upwards earnings management prior to CEO departures. Dechow and Sloan (1991) did find empirical support for that CEO's spend less on R&D during their final years in office, and in fact do respond to earnings-based incentives.

In this thesis, the expectation is similar to prior research: CEO's undertake income increasing earnings management prior to a non-routine CEO change. And in the period before a routine CEO change, prior CEO's do not undertake income increasing earnings management to increase reported income. However, contrary to the expectation, there is no evidence for the outgoing CEO undertaking upward earnings management prior to the non routine CEO

change and also not for the outgoing CEO not undertaking upward earnings management during a routine CEO change.

The year of the CEO change (T=0)

Vancil (1987) suggested that the incoming CEO might have incentives to apply *downward* earnings management during a non-routine CEO change: The incoming CEO's attempt to attribute past poor performance to the previous CEO to manage expectations and reach performance goals, since they are not held responsible for past performance (big batch accounting). Another incentive to apply downward earnings management in the initial stage of their tenure is caused by the irrelevance of income during the first financial year of tenure. Formal compensation contract are not expected to come into operation until the second year of tenure (first full financial year).

Also Wells (2002) expected big batch accounting during the year of the CEO change, especially during non-routine CEO changes. In fact, in his study little support was found for the view that incoming CEO's take an 'earnings bath' in the year of a CEO change. Also, Murphy and Zimmerman (1993) found some evidence for 'big bath' accounting in relation with incoming CEO's (the big bath opportunity).

Also in this thesis, the expectation was to find support for the view that incoming CEO's undertake downward earnings management during the year of non-routine CEO change. Although little empirical support has been found for CEO's undertaking downward earnings management during a routine and non-routine CEO change, neither of these values are significantly different from zero.

The year after the CEO change (T+1)

Wells (2002) expected income increasing earnings management for both the routine and the non-routine CEO changes as well, because formal compensation contract are not expected to come into operation until the second year of tenure (first full financial year). However, Wells did not find support for the hypothesis that CEO's manage earnings upwards in the first full year of tenure. While DeAngelo (1986) concludes in their research, that successful dissidents taking 'a bath' when elected, which they typically blame on the poor decisions of prior management, and report increasing profits the next year, to impress the public of their superior quality and which enables them to report an earnings 'turnaround' the following year.

In this thesis, the expectation was similar to the expectation of DeAngelo (1986) and Wells (2002). However, just like Wells (2002), the results of this thesis do not provide any support for upwards earnings management. In fact, the discretionary accruals were income decreasing.

Evaluation of the results

As mentioned in the introduction, several specific Dutch characteristics made it interesting to investigate the Netherlands; those characteristics might also explain the results of this thesis and the lack of empirical support for the hypotheses.

First, stockholders in the Netherlands think that high bonuses might increase the explicit incentives that CEO's may experience to manipulate income to maximize bonus-based compensation (Cools, 2008). However, a recent study shows that the Netherlands has a much lower (the lowest) rate of total CEO compensation compared to Europe and the US (Garret, 2008). This could show an opposite effect, it potentially reduces the explicit incentives that CEO's may experience to manipulate bonus-based compensation. And thus might also explain the lack of empirical support for the view that CEO's undertake upward earnings management before and after a CEO change. The incentives for CEO's in the Netherlands to maximize bonus compensation are much less present compared to the US.

A second potential explanation is the difference in corporate governance between the US and the Netherlands. On the 1st of January of 2004, a new Dutch Corporate Governance Code has come in place. The new Dutch corporate governance code required companies to annually publish how it applied the principles of the corporate governance code to its company's corporate governance in the last financial year. Furthermore the corporate governance code requires companies to annually publish how it applied the principles of the corporate governance code to its company's corporate governance in the last financial year. According to this corporate governance code, the management board and supervisory board should take account of the interest of the different stakeholders more than before. This statement is directly related to the positive accounting theory and the agency problem as discussed in chapter 2, and thus to this subject of this thesis. Good entrepreneurship, including integrity and transparency of decision-making by the management board, and proper supervision thereof, including accountability for such supervision, are essential if the stakeholders are to have confident in the management board and supervision (Corporate Governance Committee,

2003). These are the two pillars on which good corporate governance rests and on which this Dutch code is based.

Also in the US a new corporate governance code, the Sarbanes-Oxley Act of 2002 (SOX), have been introduced. An important distinction between this code and the Dutch Corporate Governance Code is that the corporate governance in the US is controlled much stricter by the government, while the Dutch Corporate Governance Code resulted in a more regulated market (CIAD-groep, 2006). In other words, the Tabaksblat allows well substantiated freedoms (comply or **explain**) and SOX requires to be followed exactly. An example of this is the potential sanctions for individual directors as stated in the SOX.

Another difference between the Dutch Corporate Governance Code and the SOX and is that in the latter one, shareholders are not mentioned in the law. While in the Dutch Code, shareholders play a rather large role: i.e. involvement with the appointment of the external accountant, approval of the remuneration report, governing board has to lay justification in the shareholders meeting about finished choices and corporate governance structure. This means that the shareholders have more influence in the Netherlands compared to the US and thus might explain the little empirical support for earnings management in the Netherlands.

In other words, the results of these reforms might explain the results of this thesis, that is, the corporate governance code might have reduced earnings management during CEO changes; because due to the improved regulations, it might have become more difficult for the Dutch CEO to manage earnings. However, there are no studies which investigated the relation between earnings management and the Dutch corporate governance. Also, the influence of the implementation of the SOX in 2002 is not taken in consideration in the prior research as discussed in chapter 4, because the prior research that are directly related to this thesis (Dechow, 1991, Pourciau 1993, Murphy and Zimmerman 1993, Wells 2002) was mainly written in the period before the implementation of SOX.

Despite the usage of the performance matching Jones model, the difficulty of controlling for firm performance still exist, so poor firm performance might be another explanation for the results of the empirical research. The usage of the performance matching Jones model did not provide significantly other results then the modified Jones model, while performance matching on return on assets controls for the effect of performance on measured discretionary accruals according to Dechow et al. (1998). And according to Dechow et al. (1995), the

modified Jones model provides biased estimates of unexpected accruals when applied to firms with extreme performance. Also Pourciau (1993) provide evidence of an association between poor firm performance and CEO changes, particularly during non-routine CEO changes.

Furthermore, since using two detection models did not provide evidence for earnings management in the Netherlands, we must consider the following as a potential explanation for the results of this thesis: i.e. that discretionary accrual models are in common no good models to detect earnings management. This statement is supported by the results of prior research (Dechow, 1995 and Guay, 1996). Because as already discussed in chapter three, Dechow (1995) and Guay (1996) assessed the ability of several accrual models to detect earnings management and concluded that just *one* detection model, the modified Jones model, was effective in detecting earnings management. However, Wells (2002) and Pourciau (1993) already suggested that the lack of empirical support in their studies might also be explained by the limited explanatory power of the modified Jones model.

And at least, another potential explanation might be the assignation of the transition year, because during a CEO change (the transition year); it is not always sure who has the responsibility for income decreasing earnings management during a CEO change. With a result that when the new CEO is appointed at the beginning of the year, he will have a lot more time to manage earnings than when appointed at the end of the year. Prior research also recognized this problem. And also I think that the power of tests to detect managerial discretion is compromised until a more accurate way of determining which CEO had control of the transition year just like Murphy and Zimmerman (1993)

7.5 Evaluating the models

In the previous part, the results of the two detection models have been evaluated. Although the two models yield the same results, it does not say anything about which model is better in explaining discretionary accruals. The last section of this thesis evaluates the power of the two discretionary accrual models to detect earnings management. First thing to do is to define the criteria to determine which model is the best. In this thesis, the standard deviation of TA will be used as a benchmark with which discretionary accruals will be evaluated. This is in line with the papers of Dechow (1995), Barth et al. (2001) and Collins and Hribar (2001). Because according to those papers, a good discretionary accrual model must yield standard errors of the DA below this level. Table 7 report the standard errors of the total accruals and

discretionary accruals for the modified Jones model and the performance matching Jones model.

Table 7: Standard errors of the total accruals and discretionary accruals, calculated by the modified Jones model and the performance matching Jones model.

	Standard deviation total accruals	Standard deviation discretionary accruals
Modified Jones model	0,07693	0,09275
Performance matching model	0,07693	0,09311

According to table 7, the standard errors discretionary accruals calculated with the modified Jones model is 9,3%. While the performance matching Jones model also generates a standard error of 9,3%. This suggests that both models are equal in detecting earnings management. None of them is better or worse than the other, this in contrast with the statement made by Kothari et al. (2005). However, it has to be noticed that both the standard deviations of the discretionary accruals exceed the standard deviation of the total accruals, which implies that the explanatory variables introduced in the models can't explain variation in accruals. It might even be the case that the discretionary accrual models are in common no good models to detect earnings management. On the other hand, it is also possible that in stead of bad detection models, that there isn't any earnings management in the Netherlands during CEO changes.

7.6 Conclusion

In this chapter the results and the analysis of the empirical results have been discussed. According to the main research question, the results indicate that there is little empirical support for CEO's undertaking earnings management before, during or after a routine or non-routine CEO change in the Netherlands. Those hypotheses were tested by using two models: the modified Jones model and the performance matching Jones model. Although the latter model is augmented to include ROA and suggested to be a better model by Kothari (2005), both models yield the same results. Even comparing the standard errors discretionary accruals and total accruals in order to determine which model is the best, resulted in exactly the same results. This suggests that both models are equal in detecting earnings management. However, it has to be noticed that both the standard deviations of the discretionary accruals exceed the standard deviation of the total accruals, which implies that the explanatory variables introduced in the models can't explain variation in accruals.

Chapter 8: Summary and conclusions

This thesis has investigated the extent of opportunistic (income-increasing or income-decreasing) earnings management in the periods surrounding chief executive officers changes using a sample of 67 CEO changes in the Netherlands during the period 2003-2007. In this last chapter, the main research question as stated in the first chapter will be answered, that is:

'Is there significant evidence of earnings management surrounding non-routine and routine CEO changes of Dutch firms during the period 2003-2007?'

Different aspects of this research question have already been addressed throughout this paper. Firstly, theoretical background has been provided about earnings management in order to gain more knowledge about this subject. In these chapters, the motivation to use the modified Jones model and the performance matching Jones model has also been explained. Furthermore, a literature research was done, where two main subjects were addressed, that is the use of earnings management during CEO changes and the different motives for CEO's during non-routine and routine CEO changes. Prior literature has found that the motivations and opportunities for earnings management vary with the circumstances of the CEO change (Pourciau 1993, Wells 2002). Based upon this literature framework, seven hypotheses have been developed. And in the subsequent chapters, the research design and the empirical research were discussed; the results of the hypotheses are summarized in the next paragraph in order to answer the main research question of this thesis. This thesis is different and relevant due to the specific characteristics of the Netherlands compared to the US and Europe, those characteristics have already been discussed in chapter 1.

Conclusion

Based on prior research (Vancil, 1987, Pourciau, 1993), it was expected that in the period before a CEO change, outgoing CEO's might have several incentives to make income-increasing accounting decisions, especially during a non-routine turnover.

However, the results of the empirical research indicate that outgoing CEO's don't undertake income increasing earnings management during a non routine CEO change through accruals in the period prior to the CEO change (H1). And there is also no evidence that the prior CEO doesn't undertake earnings management to increase reported income during a routine CEO

change (H2), using both the modified Jones and performance matching Jones model. Although these results are in contrast with our expectation, they are in line with the results of prior research (Wells, 2002, Murphy and Zimmerman, 1993).

Furthermore, based on prior research it was expected that incoming CEO's might have incentives to apply *downward* earnings management during a non-routine CEO change: The incoming CEO's attempt to attribute past poor performance to the previous CEO to manage expectations and reach performance goals, since they are not held responsible for past performance (big bath accounting). Another incentive to apply downward earnings management in the initial stage of their tenure is caused by the irrelevance of income during the first financial year of tenure. Formal compensation contract are not expected to come into operation until the second year of tenure (first full financial year).

However, in this study little support was found for the view that incoming CEO's take an 'earnings bath' in the year of a non routine and routine CEO change, using both the modified Jones and the performance matching Jones model. Although the result for the non routine CEO change sample is in line with the third hypothesis, the result is not significantly different from zero. However, this result is in line with the study of Wells (2002), who found little support for the view that incoming CEO's take an 'earnings bath' in the year of a CEO change. While Murphy and Zimmerman (1993) did find some evidence for 'big bath' accounting in relation with incoming CEO's (the big bath opportunity).

According to the subsequent period (T+1), it was expected that any form of existing earnings management will be reversed (i.e. income increasing earnings management). However there is no empirical support for the hypothesis that CEO's appointed as part of a non routine change, undertake earnings management to increase reported income (H5); and neither for the hypothesis that CEO's appointed as part of a routine change undertake earnings management to increase reported income (H6).

Also those last two hypotheses were tested by using the modified Jones and performance matching Jones model as well, and again both models yield the same results. Even comparing the standard errors discretionary accruals and total accruals in order to determine which model is the best, resulted in exactly the same results. This suggests that both models are equal in detecting earnings management. However, it has to be noticed that both the standard deviations of the discretionary accruals exceed the standard deviation of the total accruals,

which implies that the explanatory variables introduced in the models can't explain variation in accruals.

In summary, according to the main research question it can be concluded that there is little empirical support for CEO's undertaking earnings management before, during or after a routine or non-routine CEO change in the Netherlands during 2003-2007. Accordingly, the result of this thesis suggests that CEO's are not as sensitive to compensation contracts as previously suggested. Furthermore, the results of the empirical research indicate that there is no advantage to any particular detection model

Several possible explanations for the little empirical support in this thesis have been discussed in the previous chapter. First, a recent study shows that the Netherlands has a lower (the lowest) rate of total CEO compensation compared to Europe and the US (Garret, 2008). This potentially reduces the explicit incentives that CEO's may experience to manipulate bonus-based compensation. And thus might also explain the lack of empirical support for the view that CEO's undertake upward earnings management before and after a CEO change. The incentives for CEO's in the Netherlands to maximize bonus compensation are much less present compared to the US.

A second potential explanation is the difference in corporate governance between the US and the Netherlands. On the 1st of January of 2004, a new Dutch Corporate Governance Code has come in place. And also in the US a new corporate governance code, the Sarbanes-Oxley Act of 2002 (SOX), have been introduced. However, there are some differences between those two corporate governance codes. The results of these reforms might explain the results of this thesis, that is, the corporate governance code might have reduced earnings management during CEO changes in the Netherlands; because due to the improved regulations, it might have become more difficult for the Dutch CEO to manage earnings. However, there are no studies which investigated the relation between earnings management and the Dutch corporate governance.

Third, despite the usage of the performance matching Jones model, the difficulty of controlling for firm performance still exist, so poor firm performance might be another explanation for the results of the empirical research.

Furthermore, since using two detection models did not provide evidence for earnings management in the Netherlands, we must consider the following as a potential explanation for the results of this thesis: i.e. that discretionary accrual models are in common no good models to detect earnings management. This statement is supported by the results of prior research (Dechow, 1995 and Guay, 1996). Because as already discussed in chapter three, Dechow (1995) and Guay (1996) assessed the ability of several accrual models to detect earnings management and concluded that just *one* detection model, the modified Jones model, was effective in detecting earnings management. However, Wells (2002) and Pourciau (1993) already suggested that the lack of empirical support in their studies might also be explained by the limited explanatory power of the modified Jones model.

And at least, another potential explanation might be the assignation of the transition year, because during a CEO change (the transition year); it is not always sure who has the responsibility for income decreasing earnings management during a CEO change. With a result that when the new CEO is appointed at the beginning of the year, he will have a lot more time to manage earnings then when appointed at the end of the year. Prior research also recognized this problem. In other words, the power of tests to detect managerial discretion is compromised until a more accurate way of determining which CEO had control of the transition year.

Further research

This thesis extends prior research by being the first focussing on the Netherlands; this choice was based on the specific characteristics of the Netherlands that differs to the prior (US based) researches. Furthermore, this thesis have used two prediction accrual models and compared the results of the two models. The results of this thesis show little empirical support for CEO's undertaking earnings management surrounding CEO changes using both detection models. Several possible explanations for the results of this thesis have been discussed above; these explanations also provide some suggestions for future research. Because one possible explanation is the limited explanatory power of the modified Jones model and the performance matching Jones model as well. It might even be suggested that discretionary accrual models are in common no good models to detect earnings management, so future research should focus on developing a more accurate way to detect and to measure earnings management. Second, and also mentioned in the previous part as a possible explanation for the result of this thesis, is the lack of clarity about the assignation of the transition year. Future

research should focus on a more accurate way of determining which CEO has control during the transition year, because until then, the ability to detect earnings management is compromised. And at least, another suggestion for future research might be the extension of the (limited) sample size in this thesis; a greater sample over time would probably improve the results.

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Appendix A: List of Dutch CEO changes

Company	Outgoing CEO	Incoming CEO	Year of transition	Routine	Non-Routine
Ahold	Van der Hoeven	Moberg	2003		x
Akzo Nobel	van Lede	Wijers	2003	x	
Corio	Wernink	de Kreij	2003		x
Corus Plc	Pedder	Varin	2003		x
Essent	Wiechers	Boersma	2003	x	
Fornix Biosciences	Visser	Bergman	2003	x	
Gamma	Van Oijen	Veninga	2003	x	
Getronics	Van Voorst	Wagenaar	2003		x
Grolsch	Troch	Pasman	2003	x	
Grontmij	Hillege	Thijssen	2003	x	
Heijmans	Janssen	Hoefslot	2003		x
Kendrion	Wolters	Veenema	2003		x
Logica CMG	Stutterheim	Read	2003	x	
Macintosh	Beijer	Moor	2003		x
Mediq	Blom	Peek	2003	x	
Randstad	Zwarts	Noteboom	2003		x
Samas	De Mos	Van der Ven	2003		x
Vedior	Martin	Miles	2003	x	
Wessanen	Zondervan	Veenhof	2003		x
Arcadis	Sirre	Kras	2004	x	
AM	De Ruiters	Noordanus	2004		x
ASML	Dunn	Meurice	2004	x	
Blydenstein	Van Doornik	Vos	2004		x
CSM	Vink	Hoetmer	2004		x
Crucell	Valerio	Brus	2004	x	
DHL	Osinga	Ebus	2004		x
FMO	Barth	Amold	2004		x
Gouda Vuurvast	Stutvoet	Lenders	2004		x
Hagemeyer	Ter Haar	De Becker	2004		x
ICT Automatisering	Bongers	Schot	2004		x
PGGM	Beus	Noordzij	2004	x	
Shell	Watts	van der Veer	2004		x
Telegraaf	Arp	Swartjes	2004	x	

Afc Ajax	van Eijden	Fontein	2005		X
C/tac	Hilgerdenaar	Huijben	2005	X	
Eureko	Swafel	Dijkshoom	2005	X	
Eriks	Kreuger	Van der Zouw	2005		X
Exact	Hagens	Patel	2005	X	
Friesland foods	Olijslager	Dahlhaus	2005		X
Fugro	Kramer	Wester	2005	X	
Havenbedrijf Rotterdam	Scholten	Smits	2005		X
Heineken	Ruys	Boxmeer	2005		X
Mediq	Peek	Van Gelder	2005	X	
Tiscali	Huisman	Pompei	2005		X
Unilever	Burgmans	Cescau	2005		X
USG	Mulder	Icke	2005	X	
BAM	Van Vonno	van Oosten	2006	X	
Bavaria	Swinkels	Swinkels	2006	X	
Boskalis Westminster	Van Gelder	Berdowski	2006	X	
Super de Boer	Brujniks	Brouwer	2006		X
PGGM	Noordzij	van Essen	2006		X
RSDB	de Jong	Caris	2006		X
Schuitema	Brouwer	Roetert	2006		X
SHV	Klaver	Kennedy	2006	X	
Vopak	Van den Driest	Broeder	2006	X	
Ahold	Moberg	Rishton	2007		X
AFM	van Leeuwen	Hoogervorst	2007	X	
Ballast Nedam	Kottman	Brujinckx	2007	X	
Blue fox	Eisma	Steijn	2007		X
Campina	Sanders	Gielen	2007		
Corporate Express	Koffie	Ventress	2007		X
DHV	Campen	van Ee	2007	X	
Draka	Schulz	Lyons	2007	X	
DSM	Elverding	Sybesma	2007	X	
Eneco	Blom	Haas	2007	X	
Getronics	Wagenaar	van der Meijden	2007		X
Samas	Van der Ven	van der Bijl	2007		X
Vedior	Miles	Gunning	2007		X
Total				31	36

Appendix B: Output SPSS

Output SPSS Modified Jones model

Estimating coefficients

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,064	,034		-1,890	,068
	1/Δit-1	1,208	,728	,292	1,659	,107
	?REVTA	-,020	,075	-,045	-,263	,794
	PPE/TA	,007	,041	,030	,169	,867

a. Dependent Variable: TA

Model summary

Model	R	R Square	Adjusted R Square
1	,288 ^a	,083	-,003

a. Predictors: (Constant), PPE/TA, ?REVTA, 1/Δit-1

Non-discretionary accruals

		Total sample (N = 65)	Non-routine (N = 35)	Routine (N = 30)
T-1	Mean	-0,00777	-0,00585	-0,00987
	Median	-0,14499	-0,01008	-0,01918
T=0	Mean	-0,01027	-0,00851	-0,01243
	Median	-0,00718	-0,00718	-0,02735
T+1	Mean	-0,01212	-0,00662	-0,01825
	Median	-0,01025	-0,01025	-0,02797

Discretionary accruals

		Total sample (N = 65)	Sign	Non-routine (N = 35)	Sign	Routine (N = 30)
T-1	Mean	-0,04806	H1 -	-0,06144	H2 +	-0,03377
	Median	-0,04841	H1 -	-0,05848	H2 +	-0,00418
T=0	Mean	-0,03922	H3 +	-0,03174	H4 +	-0,04587
	Median	-0,04351	H3 +	-0,03826	H4 +	-0,04745
T+1	Mean	-0,04486	H5 -	-0,06788	H6 -	-0,02243
	Median	-0,03648	H5 -	-0,04811	H6 -	-0,01453

Output SPSS performance matching Jones model

Estimating coefficients

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-,071	,036		-1,986	,056
1/Ait-1	1,228	,735	,297	1,671	,105
?REV/TA	-,014	,076	-,032	-,185	,854
PPE/TA	,014	,042	,063	,338	,737
ROA	1,579	,767	,119	,669	,509

a. Dependent Variable: TA

Non-discretionary accruals

		Total sample (N = 65)	Non-routine (N = 35)	Routine (N = 30)
T-1	Mean	-0,00757	-0,00604	-0,00923
	Median	-0,01446	-0,01087	-0,01905
T=0	Mean	-0,00957	-0,00806	-0,01142
	Median	-0,00745	-0,00745	-0,02731
T+1	Mean	-0,01214	-0,00751	-0,01735
	Median	-0,01023	-0,01023	-0,02890

Discretionary accruals

		Total sample (N = 65)	Sign	Non-routine (N = 35)	Sign	Routine (N = 30)
T-1	Mean	-0,04827	H1 -	-0,06125	H2 +	-0,03441
	Median	-0,04841	H1 -	0,05850	H2 +	-0,00419
T=0	Mean	-0,03992	H3 +	-0,06595	H4 +	-0,04687
	Median	-0,04370	H3 +	-0,04502	H4 +	-0,04755
T+1	Mean	-0,04484	H5 -	-0,06595	H6 -	-0,02332
	Median	-0,03649	H5 -	-0,04502	H6 -	-0,01456

Appendix C: Overview of prior empirical literature on Earnings Management

Author	Title	Object of study	Country	Sample	Period	Methodology	Variables	Results
Vancil (1987)	Passing the Baton: Managing the Process of CEO Succession	Offering authoritative insights into how to manage the succession process.	United States	85 senior executives	1960 - 1984	Inquiry of 85 executives		1) During routine CEO changes, there are few opportunities for earnings management for the incoming and the outgoing CEO. 2) During a non-routine CEO change, the incoming and outgoing CEO both have incentives to manage earnings.
DeAngelo (1986)	Managerial competition, information costs, and corporate governance: the use of accounting performance measures in proxy contests	Investigate earnings management during proxy contests for board seats	United States	86 proxy contests	1970 - 1983	Random walk model by DeAngelo		1) Executives manipulate trying to increase revenues during the proxy fights. 2) Successful dissidents taking 'a bath' when elected. 3) Reported increasing profits the year after the election.
Dechow and Sloan (1991)	Executive incentives and the horizon problem: an empirical investigation	Investigate the hypothesis that CEO's manage investment expenditures to improve short-term earnings performance during their final years in office.	United States	58 CEO changes	1979 - 1989	Ordinary-least-square regression analysis	R&D	1) CEO's spend less on R&D during their final years in office, the evidence supports the hypothesis that earnings-based incentives encourage executives to focus on short-term performance, so bonus contracts do not completely eliminate opportunistic managerial behaviour.

Pourciau (1993)	Earnings Management and non-routine executive changes	Investigate the relation between non-routine CEO changes and discretionary accounting choices.	United States	73 top executive resignations	1985 - 1988	Random walk model by DeAngelo		1) Incoming executives record accruals and write-offs in a way that decrease earnings the of the CEO change and increases in the earnings in the following year. 2) Departing executives record accruals and write-offs that decrease earnings during their last year.
Murphy and Zimmerman (1993)	Financial performance surrounding CEO turnover	Estimate the extent to which changes are explained by poor economic performance rather than by direct managerial discretion.	United States	1000 CEO departures	1971 - 1990	Pooled cross-sectional time-series regression	R&D, advertising and capital expenditures.	1) Little evidence for earnings management prior to CEO departure, declines in variables are more explained by poor performance of the firm. 2) Some evidence for 'big bath accounting' with incoming CEO's.
Wells (2002)	Earnings Management Surrounding CEO changes	Investigate earnings management surrounding CEO changes for Australian firms.	Australia	77 CEO changes	1984 -1994	Modified-Jones model		1) Little empirical support for CEO's undertaking upward earnings management either before or after a CEO change. 2) Wells finds some support for the view that incoming CEO's take an 'earnings bath' in the year of a change.
Geiger and North (2006)	Does Hiring a New CFO Change Things? An Investigation of Changes in Discretionary Accruals	Investigate the relation between the entrance of a new CFO and earnings management.	United States	712 companies	1994 - 2000	Cross-sectional Jones model and the performance-matching Jones model.		1) Discretionary accruals decreased significantly following the appointment of a new CFO. 2) This behaviour is not influenced by a concurrent appointment of a new CEO.