

## Chapter 1: The introduction

### 1.1 Introduction to the problem

The writing period of this master thesis coincided with what seems to be a historically significant political event: the 2008 American presidential elections. Allow me to use this event as a metaphor to describe the intuition behind the subject of my master thesis. In the fall of 2008, George W. Bush was about to resign as the political leader of a nation, while the candidates for his succession were getting prepared to take charge of 'the nation'. The departing president was criticized for making at least some 'unfortunate strategic' decisions during his days in office. And so, at the end of his term he used his time and resources to present a favorable portrayal of the results of his governance, as he most probably did not want to be remembered and judged negatively for them. Oppositely, as the winning contender Barack Obama took office as the successor of George W. Bush, he and his aides continuously publicized the faults of the policies of his predecessor. As expectations of Barack Obama's performance were high, it is not hard to imagine why in this scenario, the new president would act this way. First of all, this strategy allowed him to make unpopular governance decisions and attribute any short-term negative effects to the poor decisions made by his predecessor, and thus escape any blame. Additionally, painting a negative picture of his predecessor's governance allowed him to create a lower benchmark for measuring the results of his own presidency when the time comes.

It seems to me that leaders of enterprises when confronted with succession would not act much differently than presidents. It seems likely that, just like for an incoming president, it is easier for an incoming executive to take negative earnings decisions early in their tenure, as the predecessor can be blamed, as well as creating an added bonus of lower benchmark for future performance later in their tenure. I believe that this type of opportunistic behavior should in turn influence the financial reporting behavior of companies. This, in short, is the intuition behind the subject of my master thesis.

The commonly used opportunistic perspective of the Positive Accounting Theory (based on the ideas of the Agency Theory) predicts that when self-interested actors are confronted with opportunities to use discretion with regard to financial accounting and reporting to their own advantage, they will do so. Furthermore, this practice of 'earnings management' could be aimed at either increasing the reported income, or decreasing it through income smoothing and taking of earnings baths. The International Financial Reporting Standards, which were introduced not that long ago, are often criticized for allowing room for discretion especially

due to the prescription of use of fair values. More specifically, the accounting treatment of goodwill through the use of impairment tests is often criticized. My own examination of the financial reporting standards revealed that indeed, in my opinion, there was room for managerial discretion with respect to goodwill (re)valuation and possible losses arising from it. Accordingly, knowing this, executives are expected to use goodwill impairment charges to manage earnings to achieve personal goals. As I wonder whether these personal goals could be related to the phase of employment of an executive, I formulate the following research question:

*Are tenure and prior employment of the CEO and the CFO associated with a company's financial reporting behavior in relation to the magnitude of goodwill impairment?*

The objective of this study is to assess the extent of goodwill impairment by European companies for the period 2006-2007, and to investigate the relationship between the extent of goodwill impairment and the properties of executives in charge at the time. Considering the prior research mentioned further in this master thesis, this study mainly builds and expands on the work conducted by Masters-Stout e.a. 2007. This study adds value to the existing body of research for the following reasons:

- Firstly, contrary to most studies mentioned in this master thesis, as well as that by Masters-Stout, this study is conducted using data of European companies that are subject to IFRS and not SFAS. The outcomes can thus be considered more relevant in the European context;
- Secondly, as far as my knowledge goes, no other study has been conducted on the relationship between the CFO tenure and prior employment and a company's financial reporting behavior regarding the magnitude of goodwill impairment;
- Finally, as far as I know, no other study has combined and offset both CEO and CFO properties in relation to goodwill impairment, in one research design.

## 1.2 Research hypotheses and outcomes

Examining prior research, I found support for the intuition I described in the previous section, as I discovered that in a number of studies, researchers found that it is likely that CEOs tend to take earnings baths early in their tenure (Moore 1973, DeAngelo 1987, Pourciau 1993, Francis e.a. 1996, Lapointe 2005, Ramanna and Watts 2007, Zang 2008, Bengtsson e.a. 2007, Masters-Stout e.a. 2007). Furthermore, there was mixed evidence for the support of

the idea that senior managers, who are in a later stage of their tenure, tend to overstate their financial performance (DeAngelo 1987, Pourciau 1993, Masters-Stout e.a. 2007). Studies that specifically related CEO tenure to write-offs, and even more specifically to goodwill write-offs, found there to be a negative association between tenure and the size of write-offs (Pourciau 1993, Francis e.a. 1996, Beatty and Weber 2005, Lapointe 2005, Ramanna and Watts 2007, Zang 2008, Masters-Stout e.a. 2007). Also, the nature of a specific turnover process and the prior employment of the incoming CEO (hired from within or outside the company) have been considered as an explanatory variable by some studies (Pourciau 1993, Bengtsson e.a. 2007, Masters-Stout e.a. 2007). These studies predicted that internal hires, due to their entrenched position within the company, would correspond with relatively lower impairment charges. However, the results on this topic have not proven to be conclusive. Analyzing these findings made me wonder whether the same reporting behavior patterns could also apply to the role of the CFO of a company. In the process of writing this master thesis I discovered however, that only few studies on the role of the CFO within financial reporting have been executed to date. Based on my examination of prior research I have formulated the following hypotheses to be tested in my study:

*H<sub>1</sub>: Shorter CEO tenure corresponds with higher goodwill impairment charges.*

*H<sub>2</sub>: Companies with CEOs, who have been employed by the same company two years or less, will take relatively higher goodwill impairment losses.*

*H<sub>3</sub>: Shorter CFO tenure corresponds with higher goodwill impairment charges.*

*H<sub>4</sub>: Companies with CFOs, who have been employed by the same company two years or less, will take relatively higher goodwill impairment losses.*

Surprisingly, contrary to my expectations, I have found that CEO tenure is positively associated with the magnitude of goodwill impairment charges. These results mean that the hypothesis that CEOs tend to take earnings baths in the early stages of their tenure, as losses can more easily be blamed on their predecessors, is false for the data in my sample. Additionally, compared to CEOs hired from outside the company, internally hired CEOs correspond with relatively larger goodwill impairment charges. This falsifies the second hypotheses of my study, that compared to their counterparts, internally hired executives would impair goodwill by smaller amounts as they are more 'personally invested' in previously taken strategic acquisition decisions and thus would lack a 'fresh perspective'. This outcome is less surprising as the results of prior research on this topic are inconclusive (Pourciau 1993, Bengtsson e.a. 2007, Masters-Stout e.a. 2007). Lastly, contrary to my expectations, I have not established a significant association between the CFO tenure and

prior employment variables and the magnitude of impairment charges. These outcomes mean that the answer to my research question should be as follows:

*The tenure and prior employment of the CEO are associated with a company's financial reporting behavior in relation to the magnitude of goodwill impairment. Goodwill impairment charges are likely to increase as the tenure of a CEO increases. CEOs promoted from inside the same company are likely to impair goodwill by larger amounts, compared to CEOs hired from outside the company. No evidence was found for a similar association between CFO tenure and prior employment, and goodwill impairment.*

### 1.3 Structure of this master thesis

This master thesis starts with the examination of the concept of goodwill and the corresponding financial reporting standards. Chapter 2 will examine the occurrence of goodwill: an economical explanation will be given as to why and how goodwill occurs. Secondly, this chapter will discuss the financial reporting requirements for the treatment of goodwill. Specifically the two following financial standards will be discussed in their relation to goodwill: IFRS 3 Business Combinations and IAS 36 Impairment of Assets. The goal of this chapter is to determine whether opportunities for managers to use their discretion to influence the financial reporting of the goodwill amount exist within these standards, and what those opportunities might be.

The purpose of the third chapter is to provide the theoretical basis for the research that is the subject of this master thesis. Firstly, this chapter will briefly discuss the tenants of the positive accounting theory and how earnings management within financial reporting comes into play. Furthermore, this chapter will provide an overview of the relevant prior research. Studies on discretionary behavior with regard to the impairment test, as the accounting treatment of goodwill will be covered, as well as the topic of the influence of the executive's phase of employment on financial reporting. Finally, some attention will be paid to prior research on the role of the chief financial officer with regard to financial reporting.

After having mentioned the prescribed financial accounting treatment of the goodwill and having given an overview of previously conducted research, the purpose of the fourth chapter is to describe the research design that is the subject of this master thesis. This chapter will connect the prior research to the research question and the hypotheses of my study and describe the analytical model used to analyze the collected data. Furthermore, the expected outcomes of my investigation will be discussed. Secondly, the selection process of

the companies within the examined sample, and the data collection process will be described. This chapter also includes several descriptive statistics for the selected sample.

Chapter 5 will report the outcomes of the analysis, which was the subject of this study. I will explain the steps I have taken within my study and the different regressions I have run to test the hypotheses. Accordingly, I will state the outcomes of the regression analyses I have performed. Finally, I will evaluate the outcomes of my study, consider the alternative explanations for the outcomes, state the limitations of my research design and make subsequent recommendations for future research.

In the last chapter I will present an overview of this master thesis and formulate the answer to the main research question of my study.

## Chapter 2: Impairment of goodwill

### 2.1 Introduction

Before elaborating on the theoretical groundwork of this study, it is important to consider the concept of goodwill. Firstly this chapter will examine the occurrence of goodwill: an economical explanation will be given as to why and how goodwill occurs. Secondly, this chapter will discuss the financial reporting requirements for the treatment of goodwill. Specifically, the two following financial standards will be discussed in their relation to goodwill: IFRS 3 Business Combinations and IAS 36 Impairment of Assets. Finally, based on the preceding discussion of the two current European reporting standards, this chapter will end with a discussion of possibilities for managerial discretion with regard to financial reporting of the goodwill number.

### 2.2 Occurrence of goodwill

The most basic way to describe goodwill is the value of an enterprise above the visible book value of its equity. Goodwill occurs due to the fact that the goal of financial reporting differs of that of economic valuation. Financial reporting is executed according to the accounting concept of income in order to describe the financial state of a company, according to certain standards, as an aid to users of financial information. Economic valuation is executed according to the economic concept of income, which is aimed at determining the entity's potential as a whole, to generate results. In this approach the value of a company is defined as the net present value of future cash-flows (Klaassen and Van Helleman, 2004). As the reporting standards are rarely capable of representing the economic reality in its entirety, the result of both approaches consequently is going to differ, and so, goodwill will occur. Goodwill can thus be described as the difference between the value of a company we can be certain about (the accounting numbers), and the reasonable *expectations*<sup>1</sup> about the actual value.

In financial reporting, goodwill comes into play when mergers or acquisitions take place between companies. In essence, this recognized goodwill is the difference between the price the buyer is willing to pay and the fair value of assets less liabilities of the target. This amount

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<sup>1</sup> Following that logic, for publicly traded companies, an estimation of company's goodwill can be found by deducting the book value of the equity from its current market value. (Klaassen and Van Helleman., 2004)

is, by definition, established subjectively, as it is determined by expectations of a certain entity about the possible synergy effects of the acquisition or merger with another entity. Specifically, factors such as the individual perception of the acquirer, its bargaining position (Hoogendoorn and Hartman, 2007) and the circumstances of the merger or acquisition, all can influence the purchase price to be paid, and consequently the goodwill amount.

According to Johnson and Petrone (1998) goodwill from acquisition can consist out of six components:

1. 'excess fair value over the book values of the acquiree's recognized assets,
2. fair value of other assets not recognized by the acquirer,
3. fair value of the 'going concern' element of the acquiree's business and net assets,
4. fair value from combining the acquirer's and acquiree's business and net assets,
5. overvaluations of the consideration paid by the acquirer,
6. overvaluation (or underpayment) by the acquirer.'

According to Alfredson e.a. (2007), components 3 and 4 have to be considered 'core goodwill', and components 5 and 6 can be seen as measurement errors, rather than conceptual parts of goodwill. Furthermore, component 1 should in general not exist for assets measured at fair value, and component 2 concerns assets that cannot be measured reliably or do not meet the definition of an asset, and thus are both of less importance. The International Accounting Standards Board (IASB) recognizes goodwill to comprise out of components 3-6. The IASB further points out that it would not be feasible to measure all of the separate components of goodwill. That is why components 5 and 6 are to be recognized as goodwill, even though they cannot really be considered to be real assets (as can be concluded from the Basis for Conclusions on IFRS 3 (par. BC 130-135)).

From the above-mentioned information we can conclude that goodwill acquired in a merger/acquisition, can be seen as the compensation paid by the acquiring party for what it believes to be the 'hidden' economic potential of the acquired target. The adjective 'hidden' in this case means that this potential, for some reason, is not visible in the books of the target at the time of the acquisition. Furthermore, this conclusion emphasizes the subjective element in the determination of the amount, as it is determined by the expectations of the acquirer. The management of the acquiring company and the circumstances of the specific merger, can thus inherently influence the size of goodwill. Before continuing on the strand of thought regarding managerial discretions in connection to goodwill, let us look closer at the financial reporting requirements aimed specifically at goodwill.

## 2.3 Accounting for goodwill

As of January 2005, Accounting for goodwill for European publicly trade corporations<sup>2</sup> is determined mainly by two International Financial Reporting Standards:

- IFRS 3: Business Combinations,
- IAS 36: Impairment of Assets.

### 2.3.1 Requirements of IFRS 3: Business Combinations

The objective of the first standard is as follows (IFRS 3, IN4):

‘to enhance the relevance, reliability and comparability of the information that an entity provides in its financial statements about a business combination and its effects. It does that by establishing principles and requirements for how an acquirer:

- (a) recognises and measures in its financial statements the identifiable assets acquired, the liabilities assumed and any non-controlling interest in the acquiree;
- (b) recognises and measures the goodwill acquired in the business combination or a gain from a bargain purchase; and
- (c) determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination.’

As such, this standard gives reporting entities guidance on how to report a merger or acquisition in its financial statements so they best reflect the information needs of users, according to the International Accounting Standards Board. IFRS 3 prescribes the use of the so-called ‘acquisition method’ (IFRS 3, par. 4-6), in which a merger or an acquisition is always described in terms of an acquiring party and a target (IFRS 3, IN6). Among others, this implies that even though economically a business combination should be considered a merger between two equal parties, the standard requires the transaction to be treated as an acquisition for the purpose of financial reporting.

The practical purpose of the standard is to prescribe the treatment and disclosure of target’s assets and liabilities, stated as:

‘The IFRS establishes principles for recognising and measuring the identifiable assets acquired, the liabilities assumed and any non-controlling interest in the acquiree (...) Each identifiable asset and liability is measured at its acquisition-date fair value. Any non-controlling interest in an acquiree is measured at fair value or as the controlling interest’s proportionate share of the acquiree’s net identifiable assets.’ (IFRS 3, IN6-7)

Further, IFRS 3 establishes the acquisition method as follows (par. 5):

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<sup>2</sup> As these are going to be the subjects in this study.



- ‘(a) identifying the acquirer;
- (b) determining the acquisition date;
- (c) recognising and measuring the identifiable assets acquired, the liabilities assumed and any non-controlling interest in the acquiree; and
- (d) recognising and measuring goodwill or a gain from a bargain purchase.’

Goodwill is defined in this standard as (IFRS 3, appendix A):

‘An asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognised.’

More specifically for goodwill, IFRS 3 prescribes the following treatment (par. 32):

‘The acquirer shall recognise goodwill as of the acquisition date measured as the excess of (a) over (b) below:

- (a) the aggregate of:
  - (i) the consideration transferred measured in accordance with this IFRS, which generally requires acquisition-date fair value (see paragraph 37);
  - (ii) the amount of any non-controlling interest<sup>3</sup> in the acquiree measured in accordance with this IFRS; and
  - (iii) in a business combination achieved in stages (see paragraphs 41 and 42), the acquisition-date fair value of the acquirer’s previously held equity interest in the acquiree.
- (b) the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed measured in accordance with this IFRS.’

The difference resulting from this calculation is presumed to be a positive amount, as the acquirer is expected to be willing to pay an amount in excess of the fair values of the acquired assets less liabilities, as he intends to derive a (future) advantage from the acquisition. However this is not always the case, and sometime negative goodwill is generated in an acquisition. The standard provides the following for such a ‘bargain purchase’ (IFRS 3, par. 34):

‘Occasionally, an acquirer will make a bargain purchase, which is a business combination in which the amount in paragraph 32(b) exceeds the aggregate of the amounts specified in paragraph 32(a).

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<sup>3</sup> Note that as per 1 January 2009, the International Accounting Standards Board has issued a revised version of IFRS 3. One of the main changes is that the revised standard will allow for a so called “full goodwill approach” to be applied instead of the purchase method. This gives reporting entities the following options regarding the treatment of the non-controlling interest: non-controlling interests can now be measured either as their proportionate interest in the net identifiable assets (the treatment according to the acquisition method described above) or at fair value (the new option, according to the full goodwill approach) (<http://www.iasb.org/Current+Projects/IASB+Projects/Business+Combinations/The+revised+IFRS+3+and+amended+IAS+27.htm>, as at 18.2.2009). The main difference between the two methods becomes apparent, in situations where less than 100%-interest is acquired and a minority interest emerges: presuming that the fair value of the non-controlling (minority) interest amounts to a higher amount than proportionate interest in the net identifiable assets, the amount of goodwill will be higher using the full goodwill method (Beckman, 2008). As long as the IASB allows for both methods to be used, it leaves room for discretion and by doing that decreases comparability.

If that excess remains after applying the requirements in paragraph 36, the acquirer shall recognise the resulting gain in profit or loss on the acquisition date. The gain shall be attributed to the acquirer.’

From this discussion of IFRS 3, we can derive several aspects of goodwill, namely that:

- goodwill is determined at a certain date, the date of acquisition;
- goodwill is a positive or negative residual amount, which is the difference between the amount paid for the acquisition of the target and the fair values of its identifiable assets, liabilities and contingent liabilities; and that,
- goodwill is considered to be an asset in its own right.

Goodwill, being a separate intangible asset, becomes a subject for an impairment test after the completion of an acquisition, as prescribed by the standard (par. 54 and B63). The impairment of assets is covered by IAS 36, as will be discussed from this point on.

### **2.3.2 IAS36: Impairment of Assets**

#### **2.3.2.1 General requirements regarding the impairment of assets**

Before the mandatory introduction of IFRS for all European publicly traded companies, the reporting standards in the Netherlands allowed for three methods of accounting for purchased goodwill:

- charging the entire expense to the income statement,
- charging the entire expense to equity,
- recognizing the amount as an asset on the balance sheet and depreciating it over the expected lifetime.

In practice, only the two latter methods were really applied. The choice for either of those two methods had practical consequences. Charging the goodwill expense to the equity increased the apparent profitability ratios, as it reduced the equity without reducing the profit. Depreciating the goodwill expense, on the other hand, did decrease profitability ratios. However, it did not reduce the size of equity below the amount that would be considered as safe by investors, while the previously mentioned method did do so (Klaassen and Van Helleman, 2004). From this we can gather that the choice of an accounting policy for the treatment of goodwill has always been a somewhat controversial topic.

The Dutch financial reporting standards allowed for the recognition of goodwill on the balance sheet depreciated over a period of a maximum of five years (section 2:365 par. 1 of the Dutch Civil Code). Further, the Dutch reporting standards did consider the possibility of unforeseen value impairment of goodwill, and allowed for recognition of such in the case of evidence that this impairment was to be considered lasting (section 2:387 par. 4 of the Dutch

Civil Code). However, in 2005 the European publicly traded companies, abandoned this financial reporting treatment of goodwill, due to the mandatory introduction of the amended IAS 36.

The IASB was, however, not the first financial reporting authority to prescribe mandatory impairment testing for goodwill. In 2001 the American standard setter, the FASB, prescribed a two-step impairment test for goodwill, in standard SFAS 142. The first step of the approach of this standard requires the reporting entity to compare the fair value of a reporting unit to its book value including goodwill. If the fair value does not equal or exceed the book value, then the second step should be taken. The implied fair value of goodwill is then to be compared to its carrying amount in the books. In case that the fair value is lower than the carrying amount, than goodwill is impaired by the amount of the difference and a loss is incurred (SFAS 142 as described by Klaassen and Van Helleman, 2004).

The treatment of goodwill in the European counterpart of the American standard, IAS 36, finds its roots in the same principles<sup>4</sup>. To illustrate this point: the exposure draft for IAS 36 included a very similar two step approach to the impairment of goodwill as SFAS 142 (IAS 36, BC 160). The IASB later on decided in favor of the current single step approach due to the fact that ‘the complexity and the cost of the two step approach proposed by the exposure draft would outweigh the benefits of that approach’ (IAS 36, BC 170). The board considered full convergence with SFAS 142, but among others considered that the current approach of IAS 36 provided ‘better information than a approach under which goodwill is tested for impairment at a lower level (thereby removing many of the “cushions” protecting goodwill from impairment)<sup>5</sup>’ (IAS 35, BC 169).

Let us now look closer at IAS 36. This standard has undergone a transformation in 2004 and became mandatory for European publicly trade companies in 2005. The goal of this standard is as follows (IAS 36, par.1):

‘The objective of this Standard is to prescribe the procedures that an entity applies to ensure that its assets are carried at no more than their recoverable amount. An asset is carried at more than its recoverable amount if its carrying amount exceeds the amount to be recovered through use or sale of the asset. If this is the case, the asset is described as impaired and the Standard requires the entity to recognise an impairment loss. The Standard also specifies when an entity should reverse an impairment loss and prescribes disclosures.’

Several terms are further specified by the standard (IAS 36, par. 6), of which these deserve the most attention:

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<sup>4</sup> This notion is important to keep in mind as later on in this study, we are going to review previous research on the topic of goodwill impairment conducted in the United States, which examine this practice under the rules of SFAS 142.

<sup>5</sup> More on that in section ‘2.4 Managerial discretion and goodwill impairment under IAS 36’.

‘The **recoverable amount** of an asset or a cash-generating unit is the higher of its fair value less costs to sell and its value in use.

**Fair value** less costs to sell is the amount obtainable from the sale of an asset or cash-generating unit in an arm’s length transaction between knowledgeable, willing parties, less the costs of disposal.

**Value in use** is the present value of the future cash flows expected to be derived from an asset or cash-generating unit.

**Carrying amount** is the amount at which an asset is recognised after deducting any accumulated depreciation (amortisation) and accumulated impairment losses thereon.’

To put it simpler, the standard aims to ensure that assets are not overstated in the books when compared to their actual worth. If this is the case, then the asset in question is considered impaired and a loss must be taken, when the asset is valued using the cost model. When an asset is valued at fair value as set out by the revaluation model, then the loss is treated as a revaluation decrement and accounted for according to IAS 16: Property, plant and equipment. Moreover the loss has to be taken ‘immediately’ (IAS 36 par. 60, Alfredson e.a., 2007).

Generally speaking, this standard applies to ‘all assets’, tangible and intangible; this includes goodwill. The standard requires an entity to assess at the end of each reporting period ‘whether there is any indication that an asset may be impaired’, and in case of such indication, an impairment test should be performed to estimate the recoverable amount of the asset (IAS 36, par. 9). The standard further mentions several possible external (e.g. decrease in the market value, significant adverse changes in the entity’s environment) and internal (e.g. obsolescence, physical damage, internal reporting) indicators for impairment (IAS 36, par. 12). It is important to mention that the standard calls for the concept of materiality to be applied to the process of identifying whether the recoverable amount of an asset needs to be estimated (IAS 36, par. 15). As such, the standard leaves it up to the judgment of the reporting entity’s management as to when and whether to execute an impairment test. An exception is made however, for intangible assets with indefinite useful lives, and especially for goodwill, which are to be tested annually (IAS 36, par. 10). This means that a reporting entity has to perform an annual impairment test even if there is no indication of impairment according to the management. By forcing the management to test goodwill for impairment annually, the standard applies restrictions to discretion the management has over valuation of goodwill as an asset.

The standard requires a recoverable amount to be determined for every individual asset separately, except for instances where the following situation occurs (IAS 36, par. 22):

‘Recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. If this is the

case, recoverable amount is determined for the cash-generating unit to which the asset belongs (see paragraphs 65–103), unless either:

- (a) the asset's fair value less costs to sell is higher than its carrying amount; or
- (b) the asset's value in use can be estimated to be close to its fair value less costs to sell and fair value less costs to sell can be determined.<sup>6</sup>

As mentioned in previous parts of this chapter, a specific characteristic of goodwill is that it cannot exist on its own, separately from the entity it has been generated in and is unlikely to be able to generate cash-flows of its own. It also cannot be sold separately from the entity and so no so-called 'market for goodwill trading' exists. The impairment of goodwill is therefore to be determined through the calculation of the recoverable amount of the cash-generating unit it belongs to.<sup>6</sup>

### 2.3.2.2 Fair value less cost to sell as the recoverable amount

The recoverable amount of an asset, like a cash-generating-unit of a company, is the higher of the fair value less cost to sell and the value in use of that asset (IAS 36, par 18.). There is no need to impair an asset, as long as either of the two values exceeds the carrying amount of the asset. As long as one of the two amounts does exceed the carrying amount, the other amount does not even need to be calculated (IAS 36, par.19). Further (IAS 36, par. 21):

'If there is no reason to believe that an asset's value in use materially exceeds its fair value less costs to sell, the asset's fair value less costs to sell may be used as its recoverable amount. This will often be the case for an asset that is held for disposal.'

Presuming this is indeed the case and material expectations dictate the use of fair value less cost to sell as the recoverable amount, the following applies (IAS 36, par. 25):

'The best evidence of an asset's fair value less costs to sell is a price in a binding sale agreement in an arm's length transaction, adjusted for incremental costs that would be directly attributable to the disposal of the asset.'

Continued in IAS 36, par. 26:

'If there is no binding sale agreement but an asset is traded in an active market, fair value less costs to sell is the asset's market price less the costs of disposal. The appropriate market price is usually the current bid price. When current bid prices are unavailable, the price of the most recent transaction may provide a basis from which to estimate fair value less costs to sell, provided that there has not been a significant change in economic circumstances between the transaction date and the date as at which the estimate is made.'

Continued in IAS 36, par. 27:

'If there is no binding sale agreement or active market for an asset, fair value less costs to sell is based on the best information available to reflect the amount that an entity could obtain, at the end of the reporting period, from the disposal of the asset in an arm's length transaction between knowledgeable, willing parties, after deducting the costs of disposal.'

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<sup>6</sup> More on this in section '2.3.1.3 Specific requirements for impairment of goodwill,'

To summarize the previous section, we can state that fair value less cost to sell, is the value a company is able to receive in a market for the asset in question. The best indication for this amount is an actual price in an actual agreement to sell, however the average market price will also be sufficient. The worst-case-scenario for the calculation of fair value less cost to sell, is that it will be based on 'best information available', which then can be considered a very subjective method.

### 2.3.2.3 Value in use as the recoverable amount

The standard acknowledges the possibility that the fair value of an asset cannot be determined due to for instance the lack of an active market, causing there not being 'a basis for making a reliable estimate of the amount obtainable from the sale of the asset in an arm's length transaction between knowledgeable and willing parties'. In such cases, the recoverable amount will be determined by the asset's 'value in use' (IAS 36, par. 20).

The standard describes the following components to the calculation of value in use (IAS 35, par. 30)

'The following elements shall be reflected in the calculation of an asset's value in use:

- (a) an estimate of the future cash flows the entity expects to derive from the asset;
- (b) expectations about possible variations in the amount or timing of those future cash flows;
- (c) the time value of money, represented by the current market risk-free rate of interest;
- (d) the price for bearing the uncertainty inherent in the asset; and
- (e) other factors, such as illiquidity, that market participants would reflect in pricing the future cash flows the entity expects to derive from the asset.'

To determine the value in use the standard prescribes the following two-stepped approach (IAS 36, par. 31):

- '(a) estimating the future cash inflows and outflows to be derived from continuing use of the asset and from its ultimate disposal; and
- (b) applying the appropriate discount rate to those future cash flows.'

The first step of the approach is to be executed under the following conditions (IAS 36, par. 33):

'In measuring value in use an entity shall:

- (a) base cash flow projections on reasonable and supportable assumptions that represent management's best estimate of the range of economic conditions that will exist over the remaining useful life of the asset. Greater weight shall be given to external evidence.
- (b) base cash flow projections on the most recent financial budgets/forecasts approved by management, but shall exclude any estimated future cash inflows or outflows expected to arise from future restructurings or from improving or enhancing the asset's performance. Projections

based on these budgets/forecasts shall cover a maximum period of five years, unless a longer period can be justified.

(c) estimate cash flow projections beyond the period covered by the most recent budgets/forecasts by extrapolating the projections based on the budgets/forecasts using a steady or declining growth rate for subsequent years, unless an increasing rate can be justified. This growth rate shall not exceed the long-term average growth rate for the products, industries, or country or countries in which the entity operates, or for the market in which the asset is used, unless a higher rate can be justified.’

To summarize this, we can state that value in use is determined through the computation of discounted expected future cash-flows from an asset, which are calculated based on management’s expectations and assumptions. Some limitations apply to these assumptions such as the priority given to external evidence over management assumptions. More guidance towards making reasonable assumptions is made in the following paragraph of the standard, in which emphasis is placed on consistency with previous actual outcomes (IAS 36, par. 34):

‘Management assesses the reasonableness of the assumptions on which its current cash flow projections are based by examining the causes of differences between past cash flow projections and actual cash flows. Management shall ensure that the assumptions on which its current cash flow projections are based are consistent with past actual outcomes, provided the effects of subsequent events or circumstances that did not exist when those actual cash flows were generated make this appropriate.’

The paragraphs of the standard that follow (IAS 36, par. 35-53) describe the use of budgets and forecasts to aid the determination of value in use.

Appendix A to the standard provides further guidance towards determining the value in use, by stating the main principle of application of present value techniques in measuring assets (IAS 36, par. A3):

‘(a) interest rates used to discount cash flows should reflect assumptions that are consistent with those inherent in the estimated cash flows. Otherwise, the effect of some assumptions will be double-counted or ignored. (...)

(b) estimated cash flows and discount rates should be free from both bias and factors unrelated to the asset in question. For example, deliberately understating estimated net cash flows to enhance the apparent future profitability of an asset introduces a bias into the measurement.

(c) estimated cash flows or discount rates should reflect the range of possible outcomes rather than a single most likely, minimum or maximum possible amount.’

The standard appears to place a great amount of emphasis on the actual relevance of the discount rates to be used, by further requiring them to reflect the asset-specific risk and exclude the non-relevant risks (IAS 36, par 18), and allowing for separate discount rates to be used for different future periods, if necessary (IAS 36, par. 21). However, the standard also states that the expected cash flow approach is subject to a cost-benefit constraint (IAS 36, A12), such as really any business activity is subject to. Reliability thus, will not be

achieved at all costs. Furthermore, the appendix provides some clarity on the use of discount rates, by suggesting the following discount rates (IAS 36, appendix, par. A17):

- (a) the entity's weighted average cost of capital determined using techniques such as the Capital Asset Pricing Model;
- (b) the entity's incremental borrowing rate; and
- (c) other market borrowing rates.

While executing an impairment test, a different complication, other than the determination of the entire recoverable amount of an individual asset, can arise: some 'asset's value in use cannot be estimated to be close to its fair value less costs to sell (for example, when the future cash flows from continuing use of the asset cannot be estimated to be negligible), and these assets can only generate cash-flows through combinations with other assets' (IAS 36, par. 67). The standard provides an approach for such situations (IAS 36, par. 66):

'(...) If it is not possible to estimate the recoverable amount of the individual asset, an entity shall determine the recoverable amount of the cash-generating unit to which the asset belongs (the asset's cash-generating unit).'

The standard elaborates further on what is meant by a 'cash-generating unit' (IAS 36, par. 68):

'(...) an asset's cash-generating unit is the smallest group of assets that includes the asset and generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Identification of an asset's cash-generating unit involves judgment.

If recoverable amount cannot be determined for an individual asset, an entity identifies the lowest aggregation of assets that generate largely independent cash inflows.'

Hence, if the recoverable amount of an asset cannot be determined separately, the standard prescribes the reporting entity to determine the recoverable amount at an aggregate level within the entity, which individually can provide outputs for an active market. Furthermore, the standard mentions that for that purpose consideration should be given to 'how management monitors the entity's operations (such as by product lines, businesses, individual locations, districts or regional areas) or how management makes decisions about continuing or disposing of the entity's assets and operations' (IAS 36, par. 67). Among further requirements on this topic, the standard requires that the identifications of cash generating units is to be consistent from period to period, unless disclosed otherwise (IAS 36, par. 72-3).

#### 2.3.2.4 Specific requirements for impairment of goodwill

As has been mentioned before, goodwill occurs as a residual of the costs of an acquisition and the net fair value of the target, and moreover, consists of assets that cannot be individually identified or separately recognized. Goodwill can be seen as an accumulation of assets that increase the overall wealth of an entity and increase the expected future cash



flows of the entity (such as relational capital). This increase in wealth can, presumably, often be achieved only in conjunction with other assets. How then, should goodwill be valued after acquisition? Rather than valuing goodwill separately, the standard requires, upon acquisition, the allocation of the cash flow earnings capacity of goodwill across the cash-generating units (Alfredson e.a., 2007), so to achieve an association between goodwill and benefits derived from it, as precisely as possible; moreover, the standard specifically prescribes the following treatment of goodwill (IAS 36, par. 80):

‘For the purpose of impairment testing, goodwill acquired in a business combination shall, from the acquisition date, be allocated to each of the acquirer’s cash-generating units, or groups of cash-generating units, that is expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units or groups of units.

Each unit or group of units to which the goodwill is so allocated shall:

- (a) represent the lowest level within the entity at which the goodwill is monitored for internal management purposes; and
- (b) not be larger than an operating segment determined in accordance with IFRS 8 Operating Segments<sup>7</sup>.

After this initial allocation process, the following impairment test is to take place annually for cash-generating units containing goodwill (IAS 36, par. 90):

‘A cash-generating unit to which goodwill has been allocated shall be tested for impairment annually, and whenever there is an indication that the unit may be impaired, by comparing the carrying amount of the unit, including the goodwill, with the recoverable amount of the unit. If the recoverable amount of the unit exceeds the carrying amount of the unit, the unit and the goodwill allocated to that unit shall be regarded as not impaired. If the carrying amount of the unit exceeds the recoverable amount of the unit, the entity shall recognise the impairment loss in accordance with paragraph 104.’

Continued further in IAS 36, par. 104:

‘(...) The impairment loss shall be allocated to reduce the carrying amount of the assets of the unit (group of units) in the following order:

- (a) first, to reduce the carrying amount of any goodwill allocated to the cash-generating unit (group of units); and
- (b) then, to the other assets of the unit (group of units) pro rata on the basis of the carrying amount of each asset in the unit (group of units).

These reductions in carrying amounts shall be treated as impairment losses on individual assets and recognised in accordance with paragraph 60.’<sup>8</sup>

To summarize, this approach allows entities to use goodwill allocated to a cash-generating unit of the entity as a sort of ‘shock absorber’, which is depleted first, in case of impairment of the entire unit, before the values of other assets have to be reduced. Logic dictates that if

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<sup>7</sup> IFRS 8 replaced the previously issued IAS 14, and applies only on annual accounts issued for periods starting from 1 January 2009.

<sup>8</sup> For more on recognition of impairment loss see section “2.3.2.1 General requirements regarding the impairment of assets”, p. 15.

cash-generating units are to be considered smallest independent units of a company, it is less likely that they can be traded separately in an active market. If that indeed is the case, then the calculation of the recoverable amount in relation to impairment test of goodwill will in most cases be executed according to the value-in use principle. Furthermore, fair value less cost to sell is considered in the standard to be the more appropriate valuation method for business units held for disposal<sup>9</sup>. It would make little sense to allocate acquired goodwill to business units which the company already plans to dispose of in the near future. Again, this makes it less likely that fair value less cost to sell will be the valuation method of choice, for cash-generating units with allocated goodwill.

The standard continues by providing specific instructions for the treatment of goodwill. As mentioned previously, contrary to other assets, timing restrictions exist for instances where goodwill is involved: these cash-generating units need to be tested for impairment annually. Furthermore, although these impairment tests need not be conducted at a specific time of the year, they do have to be conducted at the same time each year (IAS 36, par. 96). In addition, to what seems to be a guard against 'unjust' impairment of goodwill, any other asset of the unit containing goodwill, which is to be tested for impairment as well, should be tested for impairment before goodwill (IAS 36, par. 97). The standard also provides guidance in case of the reporting entity's inability to timely complete the allocation of goodwill acquired during the reporting period, by allowing the use of provisional values and mandating the completion for the following year (IAS 36, par. 97-98).

Other issues concerning the treatment of goodwill in relation to impairment tests are covered by the standard as well. In case of disposal of an operation within a unit with allocated goodwill, the standard requires there to be determined whether any goodwill is related to the disposed operation, and if this turns out to be the case, then to determine the relevant amount relative to the value of the disposed operation towards the value of the entire unit, unless the reporting entity can show a better method. This is necessary for the calculation of any gain or loss to be taken on the disposal of the operation (IAS 38, par. 86).

The standard also provides for the instances of reorganization of the entity 'in a way that changes the composition of one or more cash-generating units to which goodwill has been allocated, the goodwill shall be reallocated to the units affected'. The same 'relative approach' described in the previous paragraph applies, unless the reporting entity can demonstrate a more appropriate method (IAS 36, par. 87).

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<sup>9</sup> As described in '2.3.2.2 Fair value less cost to sell as the recoverable amount', p. 17.

It needs to be noted that IAS 36 does not require a reporting entity to conduct a highly extensive calculation of the recoverable amount of the cash generating unit annually, provided that the following conditions are met (IAS 36, par. 99):

- ‘(a) the assets and liabilities making up the unit have not changed significantly since the most recent recoverable amount calculation;
- (b) the most recent recoverable amount calculation resulted in an amount that exceeded the carrying amount of the unit by a substantial margin; and
- (c) based on an analysis of events that have occurred and circumstances that have changed since the most recent recoverable amount calculation, the likelihood that a current recoverable amount determination would be less than the current carrying amount of the unit is remote.’

If an impairment loss has been taken as prescribed by this standard, the standard allows for the reversal of impairment loss. However this does not apply to impairment loss taken on goodwill (IAS 36, par. 124). This is a safeguard designed against the recognition of internally generated goodwill<sup>10</sup>, which is prohibited by IAS 38 Intangible Assets (IAS 36, par. 125).

#### 2.3.2.5 Disclosure requirements of IAS 36

IAS 36 provides several disclosure requirements on the topic of impairment of assets. The main principles for disclosure are as follows (IAS 36, par. 126):

‘An entity shall disclose the following for each class of assets:

- (a) the amount of impairment losses recognised in profit or loss during the period and the line item(s) of the statement of comprehensive income in which those impairment losses are included.
- (b) the amount of reversals of impairment losses recognised in profit or loss during the period and the line item(s) of the statement of comprehensive income in which those impairment losses are reversed.<sup>11</sup>
- (c) the amount of impairment losses on revalued assets recognised in other comprehensive income during the period.
- (d) the amount of reversals of impairment losses on revalued assets recognised in other comprehensive income during the period.’

‘A class of assets is a grouping of assets of similar nature and use in an entity’s operations.’ (IFRS 36, par. 127)

When the reporting entity applies segment reporting<sup>12</sup>, it is also required to report the above information per segment (IAS 36, par. 129). Furthermore, the standard states that in case of

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<sup>10</sup> To no surprise of the reader, this is a controversial issue, considering the fact that acquired goodwill at some point has to be considered internally generated (before it can be acquired).

<sup>11</sup> As has been mentioned in the previous section of this master thesis, reversals of impairment losses are prohibited for goodwill.

<sup>12</sup> ‘(...) IFRS 8 replaced IAS 14 and changed the basis for identifying segments. Under IAS 14, two sets of segments were identified—one based on related products and services, and the other on geographical areas. Under IFRS 8, operating segments are identified on the basis of internal reports that are regularly reviewed by the entity’s chief operating decision maker in order to allocate resources to the segment and assess its performance. (...)The previous wording of the requirement in IAS 36 that each unit or group of units to which goodwill is allocated shall “not be larger than a segment

inability to timely allocate acquired goodwill, the unallocated amount and the reasons for the occurrence should be disclosed (IAS 36, par. 133).

Disclosure requirements of this standard can be considered quite extensive, as it requires several additional facts, such as surrounding events and circumstances, and the exact amounts to be disclosed about each individual impairment loss or reversal, when the loss or reversal is to be considered 'material' (IAS 36, par.130). However, if the individual losses are not to be considered 'material' and paragraph 130 does not apply, then a more general disclosure about the aggregate amount of the losses or reversals will suffice according to the standard (IAS 36, par. 131).

It is important to note that additional disclosure requirements, such as management's key assumptions regarding the cash-flow projections or the methodology used to determine fair value less cost to sell, apply to each cash-generating unit to which goodwill has been allocated, if the carrying amount of allocated goodwill is 'significant in comparison with the entity's total carrying amount of goodwill' (IAS 36, par. 134). However if the allocated amount cannot be considered significant, 'that fact shall be disclosed, together with the aggregate carrying amount of goodwill (...) allocated to those units (groups of units)' (IAS 36, par. 135). From this and the previous section of this master thesis we can deduct that perceived materiality is of great significance to the amount of disclosures user can expect with regard to impairment of assets in general and goodwill specifically.

## 2.4 Managerial discretion and goodwill impairment under IAS 36

The goal of any reporting and accounting standard is to provide instructions for an accurate representation of the economic reality in the annual accounts of a company, such as the goal of IAS 36 to prevent the overstatement of assets (or understatement through reversal of impairment<sup>13</sup>). The goal of accurate representation implies that reporting standards should also limit the opportunities for manipulation by the reporting parties, by restricting the influence they could have on accounting numbers. This section examines the question of whether and how executives could influence the accounting numbers under IAS 36 in relation to goodwill.

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based on either the entity's primary or the entity's secondary reporting format determined in accordance with IAS 14" has been amended by IFRS 8 to "not be larger than an operating segment determined in accordance with IFRS 8".' (Basis for conclusions on IAS 36, par. BC 150A)

<sup>13</sup> This is of course not applicable to goodwill, as we have seen before.

### Timing of the impairment test

Firstly, it seems that the mandatory annual impairment test is to be perceived as a limitation on executives' discretion, as it denies them the choice of whether to execute an impairment test. Both, the executives and the users of information know that every year cash-generating units with allocated goodwill will be subjected to an impairment test. The advantage here being that goodwill, being somewhat of a 'vague asset', is regularly checked for whether it has not been overstated. Looking at this differently however, one can also say that because of these expectations, this yearly test could provide a yearly opportunity to incur losses more eagerly, without drawing added attention to them, as would be the case when an unexpected loss is being incurred. Goodwill then becomes the 'preferred' asset to impair and becomes the buffer that we spoke of before<sup>14</sup>, which can absorb losses for other assets.

Furthermore, it seems that IAS 36 does leave some room for discretion on the issue of timing of the impairment test. For example, we could wonder whether management can perceive advantages to executing an impairment test at a certain time of the year and act on that. Also, management could perhaps use their discretion delay and influence the allocation of goodwill amounts of a new acquisition to their advantage under provision of paragraphs 97-98<sup>15</sup> of the standard.

### Calculation of the recoverable amount of a cash-generating unit

Additionally, it appears that it is likely that executives would have a high degree of discretion when it comes to the calculation of the recoverable amount of a cash-generating unit. In cases where value-in-use principle is applied, the following can be considered: the basis for these computation, are the expectations about future cash flows. It is an inherent quality of expectations that there would be room for a high degree of subjectivity and assumptions, and thus room for possible manipulation. As management is the ultimate provider of information to be used in the computations, they ultimately can exert influence on the outcomes of these computations.

The computation of the discounted cash-flows as value-in-use is further complicated by the choice of the discount rate to be used. It needs no mathematical illustration to see that the choice of the discount rate highly influences the outcome of a computation. And even if no intent to distort the figures exists, it is still a complex and uncertain task to be able to determine the appropriate discount rate to calculate the recoverable amount.

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<sup>14</sup> In section '2.3.2.4 Specific requirements for impairment of goodwill', p. 20.

<sup>15</sup> Provision of IAS 36 in case of an inability to timely complete the allocation of goodwill, as described in paragraph '2.3.2.4 Specific requirements for impairment of goodwill', p. 21.

Also, paragraph 99 of the standard allows for managerial discretion as to how detailed a calculation of the value-in-use as the recoverable amount of a cash-generating unit needs to be. This provision allows the management to use previous year's detailed calculations, provided that no significant changes have taken place during the year. Here too, management could find some room for discretion.

If fair value less cost to sell, is the valuation method for a cash-generating unit with allocated goodwill, then also some degree of subjectivity is possible. In situations with no existing binding sale agreement or active market, management has discretion as to what they consider to be the 'best available information' to base the fair value amount on.<sup>16</sup> Note though, that IAS 36 does require some degree of disclosure regarding the assumptions used for cash-flows projections and fair-value calculation methodology of cash-generating units to which goodwill has been allocated.<sup>17</sup>

#### Allocation of the goodwill amount

Moreover, the standard seems to allow the management a high degree of discretion on the allocation of goodwill to cash-generating units. Firstly, management seems to have full discretion as to how, and in what proportions to allocate goodwill, to which unit. This of course will to some degree, be unavoidable, since the management should possess the most specific knowledge, to do so. Secondly, management can influence the outcome of an impairment test by the choices it make as to the structure and size of what is to be qualified as a cash-generating unit. The higher the aggregate level at which operations are defined as a cash-generating unit, the bigger the overall buffer that can absorb changes in the recoverable value of individual assets, the less the need for an impairment loss to be taken. Identifying larger cash-generating units can thus be a measure to avoid having to take an impairment loss. Finally, let us not forget that the standard allows room for discretion through measures in the instances of reorganization and disposal of assets, which can possibly be put in effect to influence the overall profitability.

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<sup>16</sup> As described in paragraph '2.3.2.2 Fair value less cost to sell as the recoverable amount', p.17.

<sup>17</sup> As described in paragraph '2.3.2.5 Disclosure requirements of IAS 36', p. 23.

## Disclosure

Finally, discretion is also present with regard to disclosure. As mentioned before, even though a relatively high amount of disclosure is prescribed for information regarding the cash-generating units with allocated goodwill, this is only the case, if allocated goodwill is considered significant in relation to the total amount of goodwill. The same applies to the degree in which individual losses should be separately disclosed, if considered individually material.<sup>18</sup> Management's perception of materiality and its intentions regarding this subject, can thus influence the amount of the actual disclosure.

## 2.5 Summary

In this chapter I have determined that goodwill is the amount paid by an acquiring party in a merger/acquisition, for what it believes to be the hidden economic potential of the acquired target.

Furthermore, we have examined the two financial reporting standards that govern the financial reporting of the goodwill number: IFRS 3 and IAS 36. I have established that at acquisition, goodwill is measured at cost, and after, goodwill becomes subject to an impairment test. This is done to ensure that the amount of goodwill is not overstated in the books, compared to its actual worth. As goodwill is not an asset that can generate cash-flows on its own, its recoverable amount is determined by the fair value less cost to sell, or value in use of the cash-generating unit is has been allocated to after acquisition. Goodwill is the first asset to be impaired, if the recoverable amount of the cash-generating unit – which is likely to be determined through value in use valuation method – does not match its carrying value. The value in use of the cash-generating unit is calculated using, among others, managements expectations regarding the future cash flows. Further, this chapter shows that, on top of the general disclosure requirements of IAS 36, additional requirements have to be met in case the amount of allocated goodwill is deemed significant compared to the total amount of goodwill.

Finally I have considered several possibilities for managerial discretion under IAS 36 and found quite a few. With regard to the timing of the impairment test, the annual test can be used as an inconspicuous opportunity to take losses. With regard to the calculation of the recoverable amount of a cash-generating unit with allocated goodwill, it has also become clear that management has an opportunity to use their specific knowledge to influence the

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<sup>18</sup> As described in paragraph '2.3.2.5 Disclosure requirements of IAS 36', p. 23.

outcomes of the calculations, to avoid having to take a loss or maybe even to increase the likelihood of one. The process of allocating of goodwill across the cash-generating units, by itself provides opportunities to avoid having to take a loss, through for example an unfair aggregation of cash-generating units. Finally, perceived materiality and managerial intentions regarding it, can significantly influence the amount of disclosures regarding the impairment of goodwill.



## Chapter 3: Theoretical background and previous research

### 3.1 Introduction

The purpose of this chapter is to provide the theoretical basis for the research that is the subject of this master thesis. Firstly, this chapter will briefly discuss the tenants of the positive accounting theory and how earnings management within financial reporting comes into play. Furthermore, this chapter will provide an overview of the relevant previous research. Studies on discretionary behavior with regard to the impairment test, as the accounting treatment of goodwill, will be covered first. Then, the topic of the influence of the executive's phase of employment on financial reporting, and its significance within accounting research will be described. Finally, some attention will be given to the role of the chief financial officer with regard to financial reporting.

### 3.2 Theoretical background: Agency theory, PAT and management incentives

The roots of the study of this master thesis within the science of financial reporting and accountancy are to be found in the Positive Accounting Theory (PAT), which seeks to explain the actual choices managers make regarding accounting policies. PAT will be briefly discussed in this section of this chapter, based on the information gathered from the standard textbooks available on the subject.

Deegan (2003) provides a concise and thorough overview of the developments and outcomes of PAT. He defines PAT as follows (Deegan, 2003):

‘(...) Positive Accounting Theory (PAT), a theory that seeks to explain and predict managers' choices of accounting methods. PAT focuses on relationships between various individuals within and outside an organization and explains how financial accounting can be used to minimize the costly implications associated with each contracting party operating in his or her own self-interest.’

The most basic presumption of PAT is that managers make choices regarding accounting methods and that it matters to them which choices they make. That is, they are not indifferent to available accounting choices, and the field of PAT is aimed at determining the preferences managers might have. What drives these choices, then? PAT uses an economical theory to help explain why managers make choices. This theory is the Jensen and Meckling's (1976) Agency Theory (AT).

The Agency Theory (Jensen and Meckling, 1976)<sup>19</sup> has influenced much of the economic thought of the late twentieth century. Jensen and Meckling sought to explain practices within a company as a process of interacting relationships between people within a company and their conflicting objectives. Conflicting objectives will lead to suboptimal performance (from the perspective of the principal), or negative effects on the performance and outputs of a company, also known as 'agency costs'. The company is considered to be a 'nexus of contacts' between principle and agents, on different levels, which, due to information asymmetries, are executed under a degree of uncertainty. The theory expects that all individuals will act exclusively upon their self-interests, and contractual arrangements are mechanisms that are to be put in place to ensure the alignment of goals of self-interested agents to those of principals and the reduction of agency costs. For financial accounting theory this implies that managers, unless mitigated by contractual arrangements, will make accounting choices which best reflect their own interest, and are profitable to them in some way.

Several approaches can be identified within PAT. In fact, two perspectives exist within PAT: the efficiency and the opportunistic perspective. The efficiency perspective is an ex-ante approach, which examines what mechanisms for reducing agency costs are put in place. As this is not the direction my study is going to take, the remaining part of this section will discuss the ex-post opportunistic perspective, which is, as Deegan (2003) puts it, as follows:

'The opportunistic perspective of PAT, on the other hand, takes as given the negotiated contractual arrangements of the firm (...) and seeks to explain and predict certain opportunistic behaviors that will subsequently occur.

(...) It is assumed within PAT that managers will opportunistically select particular accounting methods whenever they believe that this will lead to an increase in their personal wealth. PAT also assumes that principals will predict a manager to be opportunistic. With this in mind, principals often stipulate the accounting methods to be used for particular purposes.

(...) However, (...) it is assumed to be too costly to stipulate in advance all accounting rules to be used in all circumstances. Hence PAT proposes that there will always be scope for agents to opportunistically select particular accounting methods in preference to others.'

This perspective relates quite closely to the agency theory. Important implications of this approach are that there are never going to be enough, nor perfect financial reporting standards, as this would be too costly. However, reporting standards are indeed measures to decrease agency costs that arise from managers chasing their personal goals through financial reporting. Furthermore, it is interesting to consider the nature of the principal-agent relationship within the field of accounting theory. Although, management is clearly the agent within the financial reporting relationship, the principal can be multi-fold: the share-holders, debt-holders and the society in general as users of information, but also the regulating

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<sup>19</sup> Together with R.H. Coase's 'The Nature of the Firm' (1937).

bodies that, besides being to some degree users of financial information themselves, are protecting the interests of other groups by prescribing reporting and accounting standards, something that those groups are unlikely to be able to achieve themselves. Finally, the last deduction is that, if indeed no perfect (amount) of reporting standards can exist and the managers are going to act opportunistically, then distortion of reported financial information will emerge.

Let us now look closer at which incentives can influence management accounting choices. As Palepu e.a. (2007) states, the 'real-world accounting systems leave considerable room for managers to influence financial statement data.' Not all influence is caused by intent, and besides the accounting choices made by managers, there are two other main sources of bias in the accounting data: the rigidity of accounting rules and random accounting errors. It is likely that none of these three sources of distortion causes distortion by itself, but it is often the combination of these factors that will cause bias.

Palepu e.a. (2003) indicates the following incentives for managers to use accounting discretion available to them to achieve certain objectives (of their own):

1. *accounting-based debt covenants: requirement of certain debt-contracts and meeting targets arising from them, can induce managers to distort accounting figures to gain more favorable results;*
2. *management compensation: (bonus-)compensation which are often connected to reported profits and wanting to secure their position for longer period of time, is another motivation to favorably influence the reported income;*
3. *corporate control contests: managers can use accounting numbers to gain approval of company's shareholders in their attempt to become/remain a manager;*
4. *tax considerations: managers can make reporting decisions for the sake of fiscal considerations;*
5. *regulatory considerations: influencing regulatory outcomes can also be a factor that is taken into consideration, when making reporting decisions;*
6. *stakeholder considerations: influencing the perception of important stakeholders of the company, such as labor unions, can also be the goal of financial reporting;*
7. *competitive considerations: the perception of competitors can also be influenced by reporting choices a company makes, for example not disclosing certain information's may be perceived to be advantageous by management.*

Some of these incentives are similar in nature, as they are all aimed at influencing the perception of different information users. However, they also differ as, even though they are indeed aimed at *self-interest* of the managers, not all of them are actually *selfish*. For

example, incentives 4-7 are probably perceived by managers to be in the interest of the company as a whole, and only indirectly to be in their own interest.

The practice of managers trying to influence the financial reporting numbers and the way they appear in the financial statements is often known by the term 'earnings management', the most common definition of which is provided by Schipper (1989):

'Earnings management occurs when managers use judgment in financial reporting and 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.'

One aspect of earnings management mentioned in this definition, has not yet been considered in this section, i.e. that managers can also use judgment to influence actual transactions, not just the financial reporting of those transactions.

There are several ways for managers to influence financial reporting, one of which is asset distortion. When managers desire to increase reported earnings they tend to overstate assets, as this is accompanied by either an increase in income or a reduction of costs in the income statement. On the other hand, managers can also desire to deflate earnings by understating assets. Managers can 'smooth income' by overstating expenses during a period of exceptional performance by the company. Also managers can 'take a bath' in income by overstating expenses during a period of exceptionally bad performance to create an appearance of a turnaround in the following years (Palepu e.a., 2007). Thus, as earnings baths occur as well, managers are not necessarily interested in presenting accounting figures only 'for the better'.

Further, Palepu e.a. (2007) mentions that one of the 'most common items that can lead to overstatement or understatement of assets' (and earnings) is the impairment of non-current (intangible) assets, like goodwill. He emphasizes that especially with regard to these assets managers are inclined to overstate the impairment loss to either take an earnings bath, or smooth income.

### **3.3 Discretionary financial reporting and the case of goodwill**

In the previous section I discussed the fact that positive accounting theory, based on the ideas of the agency theory, predicts that self-interested actors will use any available room for discretion with regard to financial accounting and reporting to their own advantage. In the previous chapter it was established that, when it came to financial reporting regulations

regarding the subject of goodwill impairment, there was quite some room for managerial discretion. Specifically, the following issues were described:

- timing of the impairment test: the annual test can be used as an inconspicuous opportunity to take losses;
- calculation of the recoverable amount of a cash-generating unit: management has an opportunity to use their specific knowledge to influence the outcomes of the calculations, to avoid having to take a loss or maybe even to increase the likelihood of one;
- allocation of the goodwill amount: there are opportunities to avoid having to take a loss, though for example an unfair aggregation of cash-generating units;
- disclosure: perceived materiality and managerial intentions regarding it, can significantly influence the amount of disclosures regarding the impairment of goodwill.

In this section I will provide an overview of previous research on the topic of managerial discretion with regard to goodwill write-offs after the introduction of the impairment test as the prescribed accounting treatment for goodwill, to try to find an answer to the question of whether there is any indication for (increased) actual opportunistic behavior. As has been mentioned in the previous chapter, due to the reasonable amount of similarity between the European IAS 36 and the American SFAS 142, studies of both European and American companies will be considered.

As was mentioned in the previous chapter, recognizing goodwill as an asset and applying the impairment test to goodwill was not always the prescribed accounting treatment of goodwill. In fact, a significant amount of criticism was voiced at both the introduction of SFAS 142<sup>20</sup> and the presentation of the renewed IFRS 3 and IAS 36. Furthermore, some even believed that the introduction of the new accounting treatment could have economic consequences. A survey conducted by Knoops and De Bruijn (2000) demonstrated that among others, managers of companies believed that the mandatory recognition of goodwill as an asset could have influence on the earnings, equity, profitability ratios, stock prices and future acquisition plans. The agency theory would suggest that managers, who assume this, could be tempted to mitigate these consequences upon and after the introduction of the new standards.

Several researchers have executed studies to examine the validity of the criticism of the new standards. Anantharaman (2007) found the popular criticism of SFAS 142 that it created

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<sup>20</sup> For example Marc F. Massouds criticism of SFAS 142 regarding its potential for manipulation, in his opinion piece: 'Accounting for Goodwill: Are we better off?'. Review of Business, pp. 26-32, Spring 2003.

room for opportunistic managerial discretion to be unfair, as she found the write-offs under the SFAS 142 regime to be a better reflection of actual economic events, contrary to the write-offs taken before its enactment. By comparing the determinants of reported write-offs before and after the introduction of the standard, she found the write-offs taken under SFAS 142, to have a stronger association with actual economic factors (such as change in Gross Domestic Product and industry-specific changes) compared to managerial reporting incentives, making the write-offs under SFAS 142 seem more reliable than before.

Further, Henning and Shaw (2004) found little support for criticism of SFAS 142 regarding the amount of discretion it allowed. They found that the amount of actual write-offs after the introduction of SFAS 142, compared to the amount predicted by their model, to be higher. They believed this effect to be caused by companies attempting to delay the goodwill write-off before the enactment of SFAS 142. Their interpretation was that SFAS 142, by providing mandatory timing for impairment tests, reduced the amount of companies' abilities to delay goodwill write-off.<sup>21</sup>

Beatty and Weber (2005) examined the so-called 'adoption period' of SFAS 142 and found evidence suggesting that financial reporting during that period was indeed influenced by managerial incentives. More specifically, they examined choices regarding the presentation and recognition of corresponding expenses in the income statement (below vs. above the line treatment) and found that these corresponded strongly with contracting and market incentives. Specifically, they found that 'when contracts include the effects of accounting changes, managers facing more binding covenants will prefer to delay expense recognition.' In addition to that, they found that managers 'having a bonus-based compensation plan that does not explicitly exclude special items reduces the probability of taking an SFAS 142 write-off.' Furthermore, they found less actual impairments than predicted amount of impairment charges. They considered the presence of the CEO who made the original acquisition decision, to be a likely explanatory variable for there being less actual impairments.

Further, Lapointe (2005) investigated goodwill impairment losses taken in the transitional period (TGILs) of the enactment of the Canadian equivalent of SFAS 142. She found that companies with lower than the industry average return-on-equity and return-on-investment ratios, recorded higher TGILs. She found this to be a sign that TGILs were used by companies to smooth their income towards their industry means. Interestingly, she also

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<sup>21</sup> This, however, can be seen as a limited interpretation of the findings, as it presumes that companies would only want to delay write-off (asset overstatement), and would not have the opposite motivation to take an earnings bath. Also, it does not consider the fact that the introduction of SFAS 142 could even have been used by companies as an inconspicuous occasion to take baths.

found that companies that experience a recent change in management recorded higher TGILs.

A study by Zang (2008) also investigated the presence of discretionary behavior with regard to the transitional impairment losses. He found that, if controlled for proxies of actual goodwill impairment (which notably did have significant explanatory power with regard to the size of goodwill), transitional impairment losses were smaller for more highly leveraged companies and greater for companies that have recently experienced a management change. He interpreted this to be evidence that earnings were indeed managed through losses taken on goodwill impairment during the transitional period. The idea behind the first outcome being that companies that approach their debt covenant constraints, are more inclined to understate their losses so not to violate the debt covenant constraints. The idea behind the second outcome will be discussed in the next section of this chapter.

Ramanna and Watts (2007), on the other hand, found evidence that room for managerial discretion under SFAS 142 caused asset overstatement. More specifically, they found that companies did not impair goodwill despite the fact that market indicators suggested they would do so. Presumably in hopes of not having to impair at all, in a period of better financial performance. More findings of this study will be mentioned in the next section of this paper.

Finally, Finch and Ford (2007) executed a study of the disclosure quality under the effect of the Australian IFRS reporting rules regarding goodwill impairment. Their findings indicate that the level of transparency derived from the application of the standards leaves a lot to be desired. They found a large amount of the disclosures not to be 'meaningful.' Specifically, they found indication of inappropriate cash-generating unit aggregation when comparing the reported GCUs to the reported business segments and controlled entities. As a result, less impairment losses might have been reported than there should have been. Furthermore, they found the disclosure regarding the discount rate used in the impairment test insufficient for the 'independent analysis of the impairment process.'

From this section we can deduct that indeed research shows evidence of opportunistic behavior on the account of managers, with regard to impairment testing of goodwill as the prescribed accounting treatment. The findings, however, did not provide a uniform conclusion. Some researchers (Anantharaman 2007, Henning and Shaw 2004) found little support for the criticism of goodwill impairment testing of SFAS 142. To the contrary, other studies have shown evidence of the misuse of managerial discretion to some degree (Beatty and Weber 2005, Lapointe 2005, Zang 2008, Ramanna and Watts 2007, Finch and Ford 2007).

### 3.4 Management tenure

The purpose of this section is to describe literature and previous accounting research on the topic of management tenure. Specifically, in this section I intend to examine the relationship between the executive management's phase of employment and its influence on financial reporting. Also, the role of the chief financial officer in the process of financial reporting will be considered.

#### 3.4.1 The role of the chief executive officer

Like any process, the period of tenure of the chief executive officer (CEO) can be subdivided into different phases. The agency theory predicts that managers will be guided by self-interest during these phases. Presumably, different phases of tenure will correspond with different goals and motivations. It is interesting to hypothesize whether this concept is more complex and to consider whether more nuances regarding the timing and its influence on managerial behavior, can be recognized within this concept.

Gabarro (1987) took a closer look at the period following the appointment of a new CEO; a process that he calls 'taking charge'. More specifically, he described taking charge as 'a process by which a manager establishes mastery and influence in the new assignment.' Although we interpret this to be the period after a management change, this definition can of course also be applied to other instances where a manager is confronted with a new situation. Gabarro further identified several patterns in the way managers 'took charge'. He found that in a period of two to three years, managerial actions go through the following five stages:

1. 'Taking hold – a period of orientation and evaluative learning and corrective action;
2. Immersion – a period of relatively little change but more reflective and penetrating learning;
3. Reshaping – a period of major change during which the new manager acts on the deeper understanding he gained in the preceding stage;
4. Consolidation – a period in which earlier changes consolidated;
5. Refinement – a period of fine tuning and relatively little major additional learning.'

From this observation we can deduct that throughout the length of their employment managers indeed go through different stages. Although no normative evaluation of the observation is made directly, we can intuitively suppose that these stages of early employment, as well as later stages, should correspond with different managerial mindsets and motives. The questions of what those motives are and the effect they could have, has been the subject of several studies.



Moore (1973) conducted one of the first studies on the subject of the influence of management changes in the field of accounting. He found that in the year of a top management change income reducing discretionary accounting decisions, such as write-downs, write-offs and taking of provisions, occurred significantly more than in years with no management change. Even though some companies with evidence of income-reducing discretionary accounting decisions already reported losses in the previous periods, he interpreted the overall results to be an indication of the newly appointed management taking an earnings bath. More so, because the majority of companies with indication of income-reducing discretionary accounting decision did report an increase in income in the first reporting year after the change. Accordingly, Moore hypothesized that the incentives of the incoming management for taking the income reducing discretionary decisions are two-fold. First, the blame would be placed on their predecessors and the historical benchmark for their own future performance is reduced. Second, the losses taken in the year of the change would not have to be reported in the future, thus increasing the future reported income and the appearance of their performance.

DeAngelo (1987) not only examined the behavior of the incoming managers, but also looked at the financial reporting behavior of their predecessors, the incumbent managers. While examining the proxy-contest for control of companies, she found that 'the incumbent managers exercised their accounting discretion to portray a favorable earnings picture' to stockholders deciding on who will be placed in charge of the company. She further found that when a 'dissident' (an outside manager) was hired in the end of a proxy-contest, that he would report an 'immediate earnings bath', so to be able to report an earnings turn-around in the following years. This study is interesting, because it not only examines the behavior of incumbent managers and suggests stockholder support as an earnings management motive, but also because it suggests an alternative explanation to the reduction of earnings in the year of the change. It seems that if the incumbent managers indeed increase the reported income before the change, then the incoming managers are actually doing the right thing by compensating for the unjust income increase in the previous period.

Pourciau (1993) investigated the behavior of incoming managers in cases of what she called a non-routine executive change. In these instances 'the company is not in a position to plan an orderly process of executive succession', which implies an involuntary resignation of the incumbent and probably the hiring of an *external* successor. She found that for these instances specifically, evidence that the incoming executives managed accruals in the year of the change to reduce income, and did the opposite in the following year. Additional findings were that in the year of the change, larger write-off were taken and special items were recorded. Interestingly, contrary to DeAngelo (1987), Pouciau found that the

departing/incumbent managers actually recorded accruals and write-off that decreased income as well. This study thus introduces a new dimension to this field of research, that is the influence of the circumstances of a management change and the prior employment history of the newly appointed manager, and it also contradicts some findings of previous research.

Francis e.a. (1996) conducted a broad study of possible causes of discretionary write-offs. Among others, she found that the extent of the impaired assets towards the total amount of assets on the balance sheet of a company is significant in predicting a write-off. A particularly interesting finding for this master thesis is that she found that write-off occur more frequently if preceded by a management change, and are then also larger in size. Furthermore, regressing proxies for managerial incentives for write-off decisions, she found strong association between managerial incentive and goodwill write-offs, which she considered to be a more discretionary type of balance sheet item. These finding are noteworthy as they establish a connection between the subjects of accounting for goodwill and the use of managerial discretion as a result of the employment phase of the management.

However, Francis e.a (1996) is not the only study to make the connection between accounting for goodwill and the influence of managerial tenure. Recall from the previous section Beatty and Weber (2005), who hypothesized that the difference between actual and predicted goodwill write-offs could be explained by the departure of the CEO who made the original acquisition decision. Further, the study by Lapointe (2005) also found that higher transitional goodwill impairment losses correlated with companies having experienced recent management change. An additional finding in another study discussed previously, by Ramanna and Watts (2007), was that goodwill-write offs are negatively associated with CEO tenure. Finally, Zang (2008) found that recent management change was an explanatory variable for earnings management through transitional goodwill impairment losses, as he believed that higher goodwill impairment losses were taken during the transitional period to increase the likelihood of higher earnings in the future.

Bengtsson e.a. (2007) investigated the occurrence of earnings management in Sweden, surrounding management turnovers. He found evidence of earnings management through both accruals, as well as write-off. More specifically, earnings were reduced in the first year of the turnover and increased in the following year. This supports the findings in the previously mentioned studies. Furthermore, Bengtsson attempts to distinguish an association between earnings management and an executive turnover in question, being routine versus non-routine<sup>22</sup>. However, he found no conclusive evidence in support of this distinction. It is

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<sup>22</sup> Bengtsson applies the same definition of the distinction as Pourciau (1993).

impossible to tell however, whether this directly contradicts Pourciau's (1993) findings mentioned before, as the latter's sample did not include, and thus compare, both routine and non-routine turnovers, but only collected data on the non-routine turnovers.

Masters-Stout e.a. (2007) performed a subsequent study, which related goodwill impairments under SFAS 142 to CEO tenure. First of all, she found that the majority of the Forbes 500 companies did not impair goodwill during the investigated period. For the companies that did impair, she found that newly appointed CEOs reported higher impairments than senior CEOs. Additionally, impairment amounts are mitigated by the company's income for that year: 'as net income declines, new CEOs tend to increase the amount of the impairment more than senior CEOs.' She also tested the data for the distinction between a CEO having been hired internally from within the present employees of the company versus external hires. Although the outcomes indeed indicated that externally hired CEOs impaired larger amount, these outcomes were insignificant. Masters-Stout contributed to the existing body of knowledge by producing more evidence supporting the idea of earnings baths being taken by CEOs with shorter tenures. She did not manage to find support for the idea that externally hired CEOs, as they are less 'personally invested' in previously taken strategic acquisition decisions and thus have what she calls a 'fresh perspective', would tend to take bigger baths compared to CEOs promoted from within the company.

This section has examined the outcomes of past research regarding the relationship between the phase of employment of CEOs and the influence this has on a company's financial reporting behavior. Strong support has been found for the idea that executive managers tend to take earnings baths early in their tenure, as the losses can then easily be blamed on their predecessors, while this also creates a lower benchmark for their future financial performance (Moore 1973, DeAngelo 1987, Pourciau 1993, Francis e.a. 1996, Lapointe 2005, Ramanna and Watts 2007, Zang 2008, Bengtsson e.a. 2007, Masters-Stout e.a. 2007). Furthermore, mixed evidence has been found for the support of the idea that senior managers who are in a later stage of their tenure tend to overstate their financial performance (DeAngelo 1987, Pourciau 1993, Masters-Stout e.a. 2007). Several studies have also related CEO tenure specifically to write-offs and even more specifically to goodwill write-offs, and found there to be a negative association between tenure and the size of write-offs (Pourciau 1993, Francis e.a. 1996, Beatty and Weber 2005, Lapointe 2005, Ramanna and Watts 2007, Zang 2008, Masters-Stout e.a. 2007). Also, the nature of a specific turnover process and the prior employment of the incoming CEO (hired from within or outside the company) have been considered as an explanatory variable by some studies (Pourciau 1993, Bengtsson e.a. 2007, Masters-Stout e.a. 2007). However, the results on this topic

have not proven to be conclusive. Finally, one study encompassed all of the abovementioned topics. This is the study conducted by Masters-Stout e.a. (2007).

**3.4.2 The role of the chief financial officer**

As can be seen from the previous section, there is quite an extensive body of research on the role of the CEO in the field of accounting research. It is clear that scholars presume that CEOs have certain incentives to manipulate financial reporting, have the power to do so, and use their power to act on their incentives. This section will attempt to consider the role of another senior manager, which could be presumed to have influence on financial reporting of a company: the chief financial officer (CFO).

Copeland (2001) reflects on the role of the modern CFO and concludes that it is no longer limited to mere ‘financial record keeping’. Now, the CFO ‘is one of the top decision makers – often leading member of the top management along with the chief executive officer and the chief operating officer.’ A CFO today, is involved in decision-making on many levels and about many significant issues throughout the entire company, and so, his activities could be any of the following:

Figure 1 source Copeland (2001)



Specifically, the CFO is, to a large degree, responsible for raising funds of the company and consequently for its capital structure decisions.<sup>23</sup> Further, a CFO is strongly involved in

<sup>23</sup> Recall Zang (2008) and his conclusion that debt-covenants influence the extent of earnings management and the size of potential impairment losses.

company's investment and acquisition decisions (Copeland, 2001), which particularly makes him an interested party when it comes to the financial results of an acquisition, and consequently any goodwill impairment losses. Intuitively, it can be supposed that some incentives that drive CEOs, might similarly drive CFOs. If so, the agency theory predicts that the CFO will also try to exert influence to satisfy his self-interests.

Surprisingly, very few studies have been conducted on the influence of the CFO in the field of accounting research. Even more surprising in view of the fact that it might seem more commonsense to consider the CFO to be the officer directly in charge of financial reporting, more so than the CEO.

Building on that intuition, Jiang and Petroni (2008) were interested in finding the answer to the question of 'who has the most influence on earnings management', the CEO or the CFO. These researches believed that the answer to this question would be provided by examining the association between the CEO versus the CFO equity-based compensation incentives<sup>24</sup> and earnings management. They executed three previously conducted studies, which already established an association between CEOs' equity incentives and earnings management, and reexamined them by also testing the association between the CFOs' equity incentives and earnings management. They found that the amount of discretionary accruals was more closely associated with the CFO rather than with the CEO incentives. Furthermore, they found that the probability of a company meeting or beating earnings forecasts was better explained by CFO incentives. Finally, CFO incentives were stronger associated with earnings restatements. Overall, these outcomes support the idea that the role of a CFO is indeed influential with regard to a company's financial reporting behavior.

Greiger and North (2006) are some of the other few researchers, who conducted a study on the influence of the CFO on earnings management. As they suspected that the CFO 'has a substantial amount of control over a company's reported financial status', they studied the effect of a CFO change on reported accruals. They found that after an appointment of a new CFO, earnings are significantly reduced through the management of accruals. Furthermore, these findings did not seem to be influenced or mitigated by the appointment of a new CEO. Finally, they also found that the hiring of a CFO from a different source than the company's direct audit company, produced more significant outcomes. This study is interesting on many levels, as it first of all, introduces the CFO as an agent that is presumed to influence financial reporting. Just like the CEO, the CFO can be presumed to be driven by incentives to take an earnings bath early in his appointment. This study further suggests that the role of the CFO

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<sup>24</sup> The incentives were measured as a ratio of equity based executive compensation, such as option plans, in relation to total executive compensation.

might be even more pronounced than that of the CEO. And, contrary to the findings discussed in the previous section regarding the origins of the newly appointed CEO, this study does find conclusive evidence that the prior employment of CFOs has significant influence on the magnitude of accrual management.

Unfortunately, little other previous research can be found on the role of the CFO in the process of earnings management, and even less so on that of earnings management through goodwill impairment. However, it does become clear that this is a subject worth further investigation.

### 3.5 Summary

The goal of this chapter was to describe the scientific theories and previously executed studies, which form the basis for the study conducted in this master thesis. As such, the positive accounting theory, which predicts managers to use any available room for discretion within reporting standards to their advantage, was identified to be the theory, which this study is going to build on. The practice of earnings management and possible incentives for managers to apply earnings management were further discussed. In addition, several previously executed studies were mentioned. Overall, evidence was found for the idea that the impairment test of goodwill indeed could be used to manage earnings. Further, strong evidence of managers taking earnings baths early in their tenure was found. Some of those studies considered the influence of CEO prior employment on goodwill impairment behavior of companies as well, although little conclusive evidence was found. Finally, limited evidence of the influence of the CFO on accounting numbers was found. An overview of the relevant findings of the studies mentioned in this chapter is summarized in the Appendix 1 of this master thesis.

## Chapter 4: Description of the study

### 4.1 Introduction

After having mentioned the prescribed financial accounting treatment of the goodwill and having given an overview of previously conducted research, the purpose of this chapter is to describe the research design that is the subject of this master thesis. In the first section, I will expound the objective of this study, the research question and the hypotheses to be tested. Additionally, I will depict the analytical model used to analyze the collected data. Furthermore, the expected outcomes of my investigation will be discussed. Secondly, the selection process of the companies within the examined sample, and the data collection process will be described. This chapter also includes several descriptive statistics for the selected sample. The remaining part of this master thesis will report the outcomes of this study.

### 4.2 Research design

#### *4.2.1 Research objectives and the research question*

The objective of this study is to assess the extent of goodwill impairment by European companies for the period 2006-2007, and to investigate the relationship between the extent of goodwill impairment and the properties of executives in charge at the time. Considering the prior research mentioned in this master thesis, this study mainly builds further and expands on the work conducted by Masters-Stout e.a. 2007. This research is more than just a copy of the Masters-Stout e.a. study (and Greiger and North's (2008)), as it adds value to and expands the body of existing research. This research design distinguishes itself from the aforementioned studies for the following reasons:

- Firstly, contrary to most studies mentioned in this master thesis, as well as that by Masters-Stout, this study is conducted using data of European companies that are subject to IFRS and not SFAS. The outcomes can thus be considered more relevant in the European context;
- Secondly, as far as my knowledge goes, no other study has been conducted on the relationship between the CFO tenure and prior employment and a company's financial reporting behavior regarding the magnitude of goodwill impairment;

- Finally, as far as I know, no other study has combined and offset both CEO and CFO properties in relation to goodwill impairment, in one research design.

The main research question of this master thesis is:

*Are tenure and prior employment of the CEO and the CFO associated with a company's financial reporting behavior in relation to the magnitude of goodwill impairment?*

#### 4.2.2 Hypotheses

In the previous chapter of the master thesis I have evaluated prior research on the topics of goodwill impairment (testing), relationship between earnings management and executive tenure, and the combination of these factors. Much the same as my own study, prior research was rooted in the positive accounting theory. The commonly used opportunistic perspective<sup>25</sup> on PAT predicts, based on the ideas of the agency theory, that self-interested actors will use any available room for discretion with regard to financial accounting and reporting to their own advantage. The examination of the financial reporting standards regarding the goodwill impairment test in chapter two of this master thesis, revealed that there was indeed quite some room for managerial discretion with regard to the execution of IAS 36, which is in agreement with the popular opinion (e.g. Palepu e.a., 2007) that due to its discretionary nature, goodwill impairment charges are likely items to be used to manage earnings.

Several associations and financial reporting behavior patterns became evident from my examination of prior research. A number of studies have found that it is likely that executive managers tend to take earnings baths early in their tenure, as the losses can then easily be blamed on their predecessors. This also creates a lower benchmark for measuring own future financial performance (Moore 1973, DeAngelo 1987, Pourciau 1993, Francis e.a. 1996, Lapointe 2005, Ramanna and Watts 2007, Zang 2008, Bengtsson e.a. 2007, Masters-Stout e.a. 2007). Furthermore, mixed evidence has been found for the support of the idea that senior managers who are in a later stage of their tenure, tend to overstate their financial performance (DeAngelo 1987, Pourciau 1993, Masters-Stout e.a. 2007).

Studies that specifically related CEO tenure to write-offs and even more specifically to goodwill write-offs, found a negative association between tenure and the size of write-offs (Pourciau 1993, Francis e.a. 1996, Beatty and Weber 2005, Lapointe 2005, Ramanna and

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<sup>25</sup> As mentioned in section 3.2 'Theoretical background: Agency theory, PAT and management incentives', this is certainly not the only perspective within PAT. The efficiency perspective is an ex-ante alternative perspective to the opportunistic ex-post perspective on PAT.



Watts 2007, Zang 2008, Masters-Stout e.a. 2007). Also, the nature of a specific turnover process and the prior employment of the incoming CEO (hired from within or outside the company) have been considered as an explanatory variable by some studies (Pourciau 1993, Bengtsson e.a. 2007, Masters-Stout e.a. 2007). These studies predicted that internal hires, due to their entrenched position within the company, would correspond with relatively lower impairment charges. However, the results on this topic have not proven to be conclusive.

Based on these outcomes of prior research and the predictions of the positive accounting theory I have arrived at the following hypotheses to be tested in my study:

*H<sub>1</sub>: Shorter CEO tenure corresponds with higher goodwill impairment charges.*

*H<sub>2</sub>: Companies with CEOs, who have been employed by the same company two years or less, will take relatively higher goodwill impairment losses.*

Additionally, I have asked myself whether the logic that has been applied to the relationship between properties of a CEO of a company and its financial reporting behavior, could also be applied to the properties of the CFO – the executive whose role seems to have become more significant within the overall governance of a company (Copeland 2001). Furthermore, the role of this executive might be considered as pronounced, or even more pronounced, when it comes to the subject of financial reporting (Copeland 2001, Jiang and Petroni 2008). Greiger and North's study (2006) builds on this intuition when examining discretionary accruals, and finds a negative association between CFO tenure and the amount of discretionary accruals, as well as finding that hiring an external CFO is associated with significant reduction in discretionary accruals, contrary to the appointment of an internal CFO. Combined with the outcomes of studies regarding the CEO properties mentioned above I arrive at the following additional hypotheses:

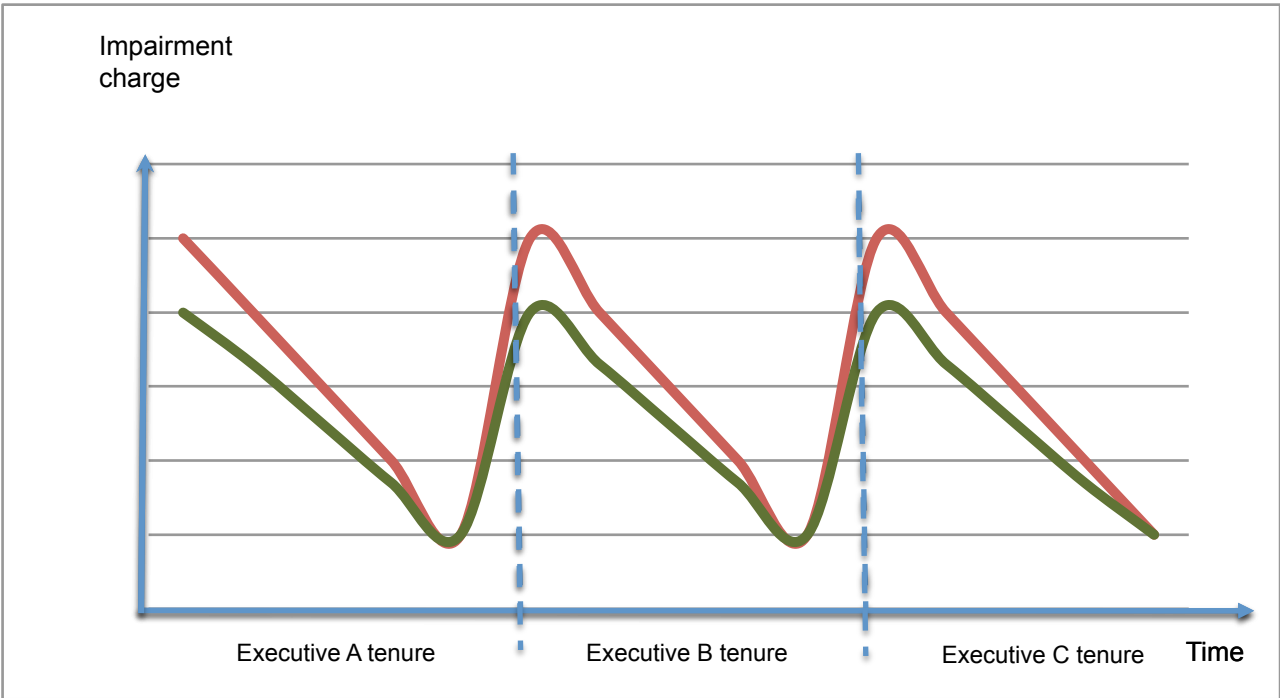
*H<sub>3</sub>: Shorter CFO tenure corresponds with higher goodwill impairment charges.*

*H<sub>4</sub>: Companies with CFOs, who have been employed by the same company two years or less, will take relatively higher goodwill impairment losses.*

Depicted graphically, I expect the following pattern to describe the relationship between goodwill impairment charges and executive tenure. The red line depicts the magnitude of impairment charges developing over a period of time as executive change, specified for an executive hired from outside the company. The green line depicts the same relationship for an executive who is hired from within the company relative to the magnitudes of the impairment charges taken by an internal executive. In the early stages of the tenure of an

executive, for the reasons mentioned above, impairment charges are higher and decrease during the course of the tenure. As a new executive takes charge (A is succeeded by B etc.), the impairment charges increase. And so on. Compared to an executive hired from outside the company, internally hired executives would impair goodwill by smaller amounts as they are more 'personally invested' in previously taken strategic acquisition decisions and thus would lack a 'fresh perspective'. I expect to find this association for both type of executives, the CEO and CFO

Figure 2 Goodwill impairment executive tenure relationship



Like any researcher, I need to address the problem of heterogeneity with regard to hypothesis formulation. The heterogeneity problem implies the existence of additional intervening variables in a hypothesized cause and effect relationship. This problem exists for all statistical association analysis methods. For my particular study this raises the concern about the fact that, instead of, or in addition to, the associations I presume between the properties of executives and the impairment charges, the impairment charges could (also) be caused by specific economic circumstances of the company in question. As it is not possible to control for such circumstances, I have formulated my hypothesis under the presumption of absence of such particular circumstances. I recognize this to be a limitation of my study, which I will address in the following chapter.

### 4.2.3 The empirical model

To test my hypotheses I use a multivariate regression model, which I will describe in this section.

The dependent variable of this model ( $IMP_{it}$ ) is the goodwill impairment charge reported by companies within the sample. Following Master-Stout e.a. (2007) approach, I have decided to measure the dependent variable in multiple metrics. First, the effects of the dependent variables will be measured against the nominal impairment amount as reported by the companies. Secondly, I believe that there would be added value to measuring the dependent variable by the effect this has within the entire income statement of a the specific company, as this puts the impairment charge amount into perspective. This is why, the second dependent variable metric is the impairment loss divided by the revenue.

To test my hypothesis I add several variables of interest. To test  $H_1$  and  $H_3$ , I depart from Master-Stout e.a. (2007), who use dummy variables to distinguish between the new and old executives<sup>26</sup>, as I do not find their arguments to be substantial enough to justify the separation into those specific categories. Using a continuous metric would, as I believe, provide for a test of a more nuanced relationship between the dependent variable and this independent variable of tenure. Furthermore, other studies that have used executive tenure as an independent variable (e.g. Ramanna, Watts, 2007), have also used a continuous metric. Consequently, to test the effect of executive tenure, I use the tenure duration measured in years ( $CEO\_TENURE_{it}$  and  $CFO\_TENURE_{it}$ ). In line with the hypotheses I have formulated in the previous section, I expect there to be a negative association between these variables and the dependent variable.

To test  $H_2$  and  $H_4$  I added uniform dummy-variables into the model ( $CEO\_INTERNAL_{it}$ ,  $CFO\_INTERNAL_{it}$ ). These dummy variables make it possible to test for the difference in the impact of an executive prior employment on the (relative) size of the impairment charge. The dummy variable is coded 0 and is considered to be an external-hire, if the executive in question was employed by company  $i$  for less than three years before appointment as CFO. In other the case the variable is coded 1. I base this distinction on Master-Stout e.a. (2007), as it seems reasonable to consider an executive who has been with a company for less than three years not to be entrenched. I did not opt for the use of the Greiger and North (2007) classification<sup>27</sup>, as I believe that audit companys are less likely to be a prior employer of a

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<sup>26</sup> In this study a CEO is considered 'new' if his tenure was less than 3 years.

<sup>27</sup> A CFO being hired directly from the company's audit company, or not.

CEO, and, as this would complicate the data collection process. In line with the hypotheses I have formulated in the previous section, I expect there to be a negative association between these variables and the dependent variable.

Additionally, I include several control variables associated with the economic condition of the companies. Often the revenues are included in regression models to control for the size of the economic activity of a company (e.g. Van de Poel e.a., 2008). Instead of this measure, I decided to include the companies' EBITDA ( $EBITDA_{it}$ ), as I have noticed during my data collection process, that the variable part of executive pay is often based on that number. I see the EBITDA amount as the measure of the ability of a company to absorb impairment charges. I do not hypothesize a coefficient sign, as, on one hand, I can imagine that higher EBITDA can be seen by the management as buffer that can absorb 'unwanted' expenses and smooth income. On the other hand, lower (than expected) EBITDA could also induce an earnings bath strategy.

Further, I include the after tax net income ( $INCOME_{it}$ ), which is also used by Masters-Stout e.a. (2007), as a measure of economic performance (profitability) of the companies in the sample. This variable is included in the model to account for the overall profitability of a company. Although net income already includes any impairment losses, I presume that if a company is confronted with a negative or extremely low or high net income before the publication of final financial results, the management might feel tempted to adjust the reported impairment charge. Consequently, similar pattern that I described for the EBITDA can also be applied to the relationship between the net income and the goodwill impairment charge: high profits could induce income smoothing and losses can be seen as an opportunity to take (further) earnings baths. Thus, no coefficient sign is hypothesized either.

The size of a company ( $SIZE_{it}$ ) measured as the natural logarithm of company's total assets to normalize the impact of the part of the sample on the larger side of the spectrum, is included in the model as well. I predict a positive relationship between the size of a company and the amount of the impairment charge, which is also supported by Van de Poel e.a. (2008) outcomes. It seems to me that, as larger companies are often the product of several prior mergers, this would result in more recognized goodwill that in turn can be a subject to impairment.

Finally, I include a company's leverage, measured as total liabilities divided by the total assets, as control variable. I expect highly leveraged companies to be subjected to more attention and scrutiny by their creditors (who are professional investors), and these companies to operate under bigger restrictions of loan contracts. This should in turn reduce the amount of earnings management in general. And when earnings management does take

place, it would probably be directed upwards to increase reported earnings. For this reasons I expect a negative coefficient sign for this variable. This variable can be considered a proxy for room for discretionary earnings management by a company as was used by Zang (2008).

Hence, my empirical model looks as follows:

$$IMP_{it} = \alpha + \beta_1 CEO\_TENURE_{it} + \beta_2 CEO\_INTERNAL_{it} + \beta_3 CFO\_TENURE_{it} + \beta_4 CFO\_INTERNAL_{it} + \beta_5 EBITDA_{it} + \beta_6 INCOME_{it} + \beta_7 SIZE_{it} + \beta_8 LEV_{it} + \varepsilon$$

Where the dependent variable is:

**IMP<sub>it</sub>** = 1. impairment loss of company *i* in year *t*; 2. impairment loss divided by the revenue of company *i* in year *t*.

Independent variables of interest:

**CEO\_TENURE<sub>it</sub>**: tenure of the CEO of company *i* in reporting year *t* measured in years.

**CEO\_INTERNAL<sub>it</sub>**: prior employment of the CEO of a company *i* in the year *t*. This dummy variable equals 0, if the CEO was employed by company *i* for less than three years before appointment as CEO.

**CFO\_TENURE<sub>it</sub>**: tenure of the CFO of company *i* in reporting year *t* measured in years.

**CFO\_INTERNAL<sub>it</sub>**: prior employment of the CEO of a company *i* in the year *t*. This dummy variable equals 0, if the CFO was employed by company *i* for less than three years before appointment as CFO.

Control variables:

**EBITDA<sub>it</sub>**: earnings before interest taxes depreciation and amortization of company *i* in year *t*.

**INCOME<sub>it</sub>**: after tax net income of company *i* in year *t*.

**SIZE<sub>it</sub>** = natural logarithm of company *i*'s total assets

**LEV<sub>it</sub>**: company *i*'s leverage, calculated as total debt divided by total assets.

The following table summarizes expected relationships between the independent variables and goodwill impairment charge.

**Table 1 Expected coefficient signs variables**

<i>Variable</i>	<i>Expected sign coefficient</i>
$\beta_1$ CEO_TENURE	-
$\beta_2$ CEO_INTERNAL	-
$\beta_3$ CFO_TENURE	-
$\beta_4$ CFO_INTERNAL	-
$\beta_5$ EBITDA	+/-
$\beta_6$ INCOME	+/-
$\beta_7$ SIZE	+
$\beta_8$ LEV	-

### 4.3 Sample and data collection

As has been mentioned before, this study builds further on the study conducted by Masters-Stout e.a. (2007). This previous study investigated the relationship between goodwill impairment and CEO tenure of approximately 300 companies (containing goodwill on their balance sheet) featured on the Forbes' 500 list, for the period 2003-2005. In this master thesis, I would like to conduct a similar study in the European context to find out whether their findings would resonate in the behavior of European companies. To achieve this, the sample is required to contain companies that are generally regarded to be important in the European economy. As such the FTSE Eurotop 100 Index as measured on April 13<sup>th</sup> 2007<sup>28</sup>, was chosen as appropriate source to extract the sample from.

#### 4.3.1 The sample

The financial data was hand collected using the information provided in the annual reports for the fiscal years 2006 and 2007. For companies not reporting in calendar years, the annual reports were classified into years, using the description of the reporting period as presented by the company itself in the corresponding annual report.<sup>29</sup> FTSE Eurotop 100 Index provided a list of one hundred major European publically trade companies, for which annual reports were collected. Financial institutions were excluded from the sample, as they are subject to specific and exceptional reporting rules and regulation. This resulted in remaining sample of 67 companies. Furthermore, seven of those companies did not report according to

<sup>28</sup> Originally, this study was to be conducted as an extension of a previously conducted master thesis study by Bas van Oers, 'Impairment, is it recoverable?', 2008. The idea was to produce results which could be compared across the two studies and thus across several years. That is why it was decided to use the FTSE Eurotop 100 Index measured at the same date as was done so in the previous study, which is April 13<sup>th</sup> 2007. However, as the research design of this master thesis further developed, it became clear that this study was to be of a fundamentally different nature.

<sup>29</sup> This applies to eight companies within the final sample.

IFRS in the year 2006, and were also excluded from the final sample. Additionally, two of the companies on the list merged during the course of 2007, which resulted in the exclusion of one of them from the final sample. Finally, one company did not contain any goodwill on its balance sheet and was also excluded from the sample. This resulted in a sample of 58 major European companies, which are listed in Appendix 2 of this master thesis. Taking into account that two fiscal years were examined, the sample results in a total of 116 observations.

The population of companies is described in the following two tables. The majority of the companies in the sample are incorporated in Great Britain, France and Germany. Not surprising, as these are the major economies of Europe.

**Table 2 Distribution of the sample across countries**

	Frequency	Percent
Great Britain	17	29.3
France	15	25.9
Germany	7	12.1
Spain	5	8.6
Italy	3	5.2
Switzerland	3	5.2
Sweden	2	3.4
The Netherlands	2	3.4
Belgium	1	1.7
Denmark	1	1.7
Finland	1	1.7
GB / NL	1	1.7
<b>Total</b>	<b>58</b>	<b>100</b>

**Table 3 Distribution of the sample across industries<sup>30</sup>**

	Frequency	Percent
3000 Consumer Goods	14	24.1
1000 Basic Materials	8	13.8
6000 Telecommunications	8	13.8
7000 Utilities	7	12.1
0001 Oil & Gas	6	10.3
4000 Health Care	5	8.6
2000 Industrials	4	6.9
5000 Consumer Services	4	6.9
9000 Technology	2	3.4
<b>Total</b>	<b>58</b>	<b>100</b>

When, classified by industry, the sample mainly contains companies that are active in the consumer goods, basic materials and telecommunications sectors. It is hard to speculate

<sup>30</sup> Using the SIC-codes.

whether this particular distribution of the sample across industries, could have an impact on the outcomes of this study. There seems to be no specific reason to expect these industries to have more or less than average merger and acquisition activity, which in turn, would influence the presence and amounts of goodwill on their balance sheets.

#### 4.3.2 Financial data

The purpose of this study is to relate the goodwill impairment behavior of companies to specific characteristics of CEOs and CFOs of those companies. Firstly, financial data regarding goodwill impairment needed to be collected. Originally, I attempted to collect this information using a database. This attempt however, did not result in a usable data set, as the majority of necessary amounts was missing.<sup>31</sup> It was then decided to collect the goodwill amounts and goodwill impairment amounts directly from the annual accounts of the companies in the sample. Simultaneously, other financial information such as the total assets, revenues and net income, were also collected from the annual accounts. The EBITDA amounts were calculated according to the Thomson One Banker definition. Data were collected in original currencies and recomputed to euro amounts using the Oanda.com interbank exchange rate averages on 31 December 2006 and 31 December 2007.

The most important collected data are summarized in the following overview (from here on, all amounts are in EUR million, unless stated otherwise):

**Table 4 Financial variables pooled across years and industries**

	N	Minimum	Maximum	Mean
Assets t	116	3,984	235,466	62,794
Impairment t	116	0	34,873	500
Impairment t /opening assets	116	0%	16%	0%
Impairment t /revenue	116	0%	80%	1%
Net Income	116	-25,557	21,272	3,933
Opening Goodwill	116	37	120,123	8,186
Opening Goodwill/Opening Assets	116	0%	55%	14%
Revenue t	116	3,577	241,552	42,904
Total debt	116	2,272	221,607	40,53

An elaborate overview of this data, arranged by year and industry, can be found in Appendix 5 of this master thesis. Overall, it appears that measured by both the amount of assets and the revenues, the companies in the sample varied greatly in size. On average,

<sup>31</sup> This could be due to the fact that goodwill is not considered to be a significant item by the publishers of databases.



the companies in the sample were highly leveraged.<sup>32</sup> All, except one, observations concerned companies making a profit in the reporting year. The observed maximum for goodwill amounts measured against total assets is 55% and on average is 14% of total opening assets, which makes it reasonable to classify goodwill as a significant asset of the sampled companies. Finally the average goodwill impairment amount for the entire sample, including at companies that did not impair, is 500 thousand euro.

**Table 5 Distribution of impairment decision across industries**

Industry	N Not impaired	N Impaired	Total	Percent impaired
Oil & Gas	10	2	12	17%
Basic Materials	11	5	16	31%
Industrials	4	4	8	50%
Consumer Goods	16	12	28	43%
Health Care	6	4	10	40%
Consumer Services	7	1	8	13%
Telecommunications	9	7	16	44%
Utilities	6	8	14	57%
Technology	4	0	4	0%
Total	73	43	116	

**Table 6 Goodwill and impairment specified by industry**

Industry		Minimum	Maximum	Mean	Std. Deviation
Oil & Gas	Opening GW	445	7,855	2,802	2,452
	Impairment t	0	18	2	5
Basic Materials	Opening GW	229	8,227	2,474	2,219
	Impairment t	0	1,044	81	260
Industrials	Opening GW	37	11,303	7,872	4,872
	Impairment t	0	125	26	49
Consumer Goods	Opening GW	57	17,190	5,445	5,474
	Impairment t	0	1,112	89	279
Health Care	Opening GW	722	30,234	8,236	11,351
	Impairment t	0	15	2	5
Consumer Services	Opening GW	79	13,796	6,412	6,092
	Impairment t	0	6	1	2
Telecommunications	Opening GW	599	120,123	27,398	31,562
	Impairment t	0	34,873	3,339	9,283
Utilities	Opening GW	50	15,613	6,200	5,324
	Impairment t	0	337	36	90
Technology	Opening GW	90	813	540	322
	Impairment t	0	0	0	0

Looking specifically at goodwill impairment amounts I found that in 73 out of 116 observations, goodwill was not impaired during the corresponding reporting year. This

<sup>32</sup> The average debt to total assets ratio is 60%.

means that only in 37.1% of cases companies impaired goodwill. Overall, the consumer goods industry took the most impairment decisions. However, within their own group, utilities, telecommunications, consumer goods and healthcare impaired goodwill in approximately half of the cases. The technological companies did not impair any goodwill during the observed period. Furthermore, measured by both the mean and euro amounts, largest goodwill impairments, by far, took place in the telecommunications industry, which also recognized largest goodwill amounts on their balance sheets.

The final table of his section describes the subsample of companies that impaired goodwill during the observed period. The average goodwill amount before impairment within this subsample is higher than when measured for the entire sample. Furthermore, the average goodwill amounts before impairment measured against assets is 17%, which is slightly higher than the total sample average. For obvious reasons, the average goodwill impairment amount and the average impairment as percentage of revenue are higher than for the entire sample. The average impairment amount measured against total revenue is merely 4%, although the most extreme case 80% of the revenues was consumed by an impairment charge.

**Table 7 Goodwill and impairment descriptives for companies that impaired goodwill**

	N	Minimum	Maximum	Mean
Opening Goodwill	43	37	120,123	11,165
Opening GW/Opening assets	43	0%	55%	17%
Impairment	43	0	34,873	1,348
Impairment/ Opening assets	43	0%	16%	1%
Impairment/ Revenue	43	0%	80%	4%

**4.3.3 CEO and CFO information**

Additionally, information regarding the tenure and prior employment of the CEOs and the CFOs of the companies in the sample needed to be collected. The attempts to find a database that encompassed the necessary information for European companies failed as such a database does not exist. Thus, the data needed to be hand collected from other sources, resulting in a unique comprehensive overview of tenure and prior employment information for the concerning sample, that can be found in Appendix 4 and 5 of this master thesis. Data were mainly collected from websites of the companies in the sample. When these lacked the necessary information, which was, for example, often the case when the concerning executive had already left the company, information was gathered from other internet sources. The following websites have proven to be good sources of information:

- www.forbes.com;
- www.investing.businessweek.com;
- www.portfolio.com

Finally, newspaper articles describing the executive turnover announcements were used to identify the predecessors of recently employed executives. Often, this information was used as starting point to find additional data, such as the exact employment information of the specific executive, in the previously mention sources. Two pieces<sup>33</sup> of data were collected for each executive:

- the year of appointment in this function as either CEO or CFO;
- information on whether, prior to becoming an executive, the person in question was employed by the same company.

The first piece of information was used to calculate the tenure of the specific executive. The tenure during 2007 was measured on 31 December 2007 and calculated using whole years, by measuring the difference between the year of appointment and the aforementioned date. While considering a more precise tenure measurement, e.g. in months, I found there to be little added value to this approach, moreover as other previous studies seemed to calculate tenure in whole years as well. The tenure for 2006 was calculated by measuring the difference between the year of appointment and 31 December 2006, except if there had been a change in management during 2006. In that case the predecessor of the 2007-executive was identified and his tenure was calculated in the same manner. Furthermore, I double-checked to see whether the executive in question indeed was the one to sign the annual report, as I believe that the executive, who is legally responsible for the annual report, should also be the one who is to be the subject of the study.

The second piece of information was used to classify the executives' prior employment. Following Master-Stout e.a. (2007) classification, when prior to his appointment the executive was employed by the same company for less than three years, he was considered to be promoted from 'outside' the company', and to be the so-called 'external hire'.<sup>34</sup>

The average CEO tenure of the companies in the sample, in the period 2006-2007 was 5.9 years, which is also quite close to the median of the observations in the sample. The CEO tenure varied from one year to nineteen years. The most frequently observed tenure of

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<sup>33</sup> To add an extra dimension to this study, I also considered adding the reason for the executive departure (routine vs. non-routine turnover), (e.g. Pourciau 1993, Bengtsson e.a. 2007), as an explanatory variable to the model. However, I could not find a reliable source of such information.

<sup>34</sup> Again, DeAngelo (1987) described the external hires as 'dissidents'.

a CEO was one year, which might indicate that longer less frequent tenures might have influenced the calculation of average and the median towards a higher duration.

The average CFO tenure of companies in the sample was 4.5, which is also pretty close to the median. The observed tenures varied from one year to sixteen. The most frequently observed tenure was three years, which lies closer to the other descriptive statistics and indicates that the longer tenures had less effect on the average and the median, and thus might give a better representation of the population, than the CEO average. This might also indicate that compared to CEOs, CFOs stay with the same company longer. The tenure of the executives in the sample is summarized in the following table:

**Table 8 Summary executive tenure**

	CEO tenure	CFO tenure
Mean	5.9	4.53
Median	5	4
Mode	1	3
Minimum	1	1
Maximum	19	16
Std. Deviation	4.684	3.003

Following Master-Stouts e.a. (2007) classification, which is also supported by Gabarro's description of executive early employment phase<sup>35</sup>, to describe the sample, executives with a tenure of less than three years were classified as a 'new CEO/CFO'<sup>36</sup>. This resulted in 30% of the observations to be 'newly' appointed CEO and 28% to concern 'newly' appointed CFO. Furthermore, of the 35 'new CEOs', 31% can be considered external hires, and of the 33 'new CFOs' 46% were external hires. The exact breakdown of all of the observations regarding the CEO and CFO classification can be found in the two following tables.

**Table 9 Observed CEO tenure and prior employment**

CEO tenure			CEO prior employment		
			N outside	N inside	Total
Old CEO	Reporting Year	2006	11	30	41
		2007	10	30	40
	Total	21	60	<b>81</b>	
New CEO	Reporting Year	2006	4	13	17
		2007	7	11	18
	Total	<b>11</b>	<b>24</b>	<b>35</b>	
Total			32	84	116

<sup>35</sup> See section 3.4.1 of this master thesis.

<sup>36</sup> DeAngelo (1987) used a different terminology for the groups: 'incoming' versus 'incumbent'.

Table 10 Observed CFO tenure and prior employment

CFO tenure			CFO prior employment		
			N outside	N inside	Total
Old CFO	Reporting Year	2006	16	24	40
		2007	18	25	43
	Total		34	49	<b>83</b>
New CFO	Reporting Year	2006	9	9	18
		2007	7	8	15
	Total		<b>16</b>	<b>17</b>	<b>33</b>
Total			50	66	116

#### 4.3.4 Financial and executive information combined

Table 11 Financial information specified by CEO type

			Minimum	Maximum	Mean	Std. Deviation
Old CEO	Outside	Assets t	7,106	235,466	76,988	68,722
		Impairment t	0	1,044	73	234
		Impairment t /assets t-1	0%	9%	0%	2%
		Impairment t /revenue t	0%	8%	0%	2%
		Net Income	1,258	10,809	3,383	2,080
		Opening GW	50	43,980	6,328	9,580
		Revenue t	9,435	88,083	33,559	23,330
		Total debt	2,889	221,607	58,877	66,472
	Inside	Assets t	3,984	187,955	57,312	45,030
		Impairment t	0	34,873	886	4,903
		Impairment t /assets t-1	0%	16%	1%	2%
		Impairment t /revenue t	0%	80%	2%	11%
		Net Income	-25,557	21,272	3,968	5,854
		Opening GW	37	120,123	8,988	18,075
New CEO	Outside	Assets t	5,742	88,312	48,326	29,751
		Impairment t	0	1	0	0
		Impairment t /assets t-1	0%	0%	0%	0%
		Impairment t /revenue t	0%	0%	0%	0%
		Net Income	-437	9,823	3,034	2,567
		Opening GW	67	43,739	7,474	12,782
		Revenue t	8,196	86,888	31,272	21,725
		Total debt	2,272	68,713	32,948	23,430
	Inside	Assets t	16,856	160,280	70,711	42,051
		Impairment t	0	2,800	136	569
		Impairment t /assets t-1	0%	3%	0%	1%
		Impairment t /revenue t	0%	5%	0%	1%
		Net Income	115	14,372	4,738	3,449
		Opening GW	57	33,726	8,135	9,969
		11,896	196,178	51,685	44,764	
		4,248	113,419	44,877	31,648	

As shown in table 11, this section combines the information from previous sections by arranging the financial data by the type of executive. Within the sample, the subsample of New CEOs promoted from inside the company have the highest average earnings compared to other groups, and new CEOs hired from outside the company have the lowest earnings. Average revenues are highest within the new CEO hired from inside group and lowest within the new CEO hired from outside group. When compared by average total assets, older CEOs hired externally are in charge of larger companies; new CEOs hired externally have the lowest total asset average compared to other groups. Average opening goodwill is highest within the old CEO hired internally group; the lowest are within the old CEO hired from outside group.

**Table 12 Financial information specified by CFO type**

			Minimum	Maximum	Mean	Std, Deviation
Old CFO	Outside	Assets t	3,984	186,149	58,402	51,988
		Impairment t	0	1,112	109	306
		Impairment t /assets t-1	0%	9%	1%	2%
		Impairment t /revenue t	0%	11%	1%	3%
		Net Income	115	21,272	3,505	3,594
		Opening GW	50	43,980	7,283	11,018
		Revenue t	3,577	241,552	35,588	44,622
		Total debt	2,365	157,353	39,132	42,561
	Inside	Assets t	18,817	217,698	67,853	45,456
		Impairment t	0	15,720	329	2,245
		Impairment t /assets t-1	0%	9%	0%	1%
		Impairment t /revenue t	0%	37%	1%	5%
		Net Income	-6,513	16,898	4,648	4,025
		Opening GW	57	71,292	7,434	11,425
Revenue t		10,138	204,955	48,629	44,822	
Total debt		7,066	203,746	43,753	35,334	
New CFO	Outside	Assets t	16,856	178,199	56,221	39,372
		Impairment t	0	2,800	190	697
		Impairment t /assets t-1	0%	3%	0%	1%
		Impairment t /revenue t	0%	5%	0%	1%
		Net Income	797	19,270	4,662	4,189
		Opening GW	37	33,726	7,774	9,238
		Revenue t	12,068	241,494	50,198	53,657
		Total debt	4,248	91,139	32,438	23,897
	Inside	Assets t	5,742	235,466	63,182	60,842
		Impairment t	0	34,873	2,064	8,455
		impairment t /assets t-1	0%	16%	1%	4%
		Impairment t /revenue t	0%	80%	5%	19%
		Net Income	-25,557	9,163	2,039	7,544
		Opening GW	66	120,123	12,550	28,737
Revenue t		8,196	77,923	34,170	19,347	
Total debt		2,272	221,607	41,649	50,177	

In table 12, financial information is broken down by CFO type. The average earnings are the highest within the new CFO hired from outside group, and lowest within the old CFO hired from outside the company group. The old CFO hired from outside the company group also has the highest average revenue; new CEOs hired from inside the company have the lowest average revenues. Average total assets are again the highest in the old CFO hired from outside the company group and the lowest within the new CFO from outside the company group. Finally, average opening goodwill is the largest within the new CFO hired from inside the company group.

The results regarding the goodwill impairment decision, are presented in the following two tables.

**Table 13 Goodwill impairment decision specified by CEO type**

	N Not impaired	N Impaired	Total	Percent impaired
Old CEO outside	13	8	21	38%
inside	37	23	60	38%
<i>Subtotal</i>	<i>50</i>	<i>31</i>	<i>81</i>	<b>38%</b>
New CEO outside	9	2	11	18%
inside	14	10	24	42%
<i>Subtotal</i>	<i>23</i>	<i>12</i>	<i>35</i>	<b>34%</b>
Total	73	43	197	

Overall, the percentage of new CEOs in the companies that have taken a goodwill impairment decision is slightly smaller than that of old CEOs. In addition, within the new CEO group, the CEOs promoted from inside the company correspond with an impairment decision twice as often.

**Table 14 Goodwill impairment decision specified by CFO type**

	N Not impaired	N Impaired	Total	Percent impaired
Old CFO outside	19	15	34	44%
inside	37	12	49	24%
<i>Subtotal</i>	<i>56</i>	<i>27</i>	<i>83</i>	<b>33%</b>
New CFO outside	7	9	16	56%
inside	10	7	17	41%
<i>Subtotal</i>	<i>17</i>	<i>16</i>	<i>33</i>	<b>48%</b>
Total	73	43	199	

The table that matches impairment decision to CFO type gives a slightly different impression. Within their respective groups new CFOs have taken an impairment decision relatively more often than the old CFOs. In both groups, CFOs hired from outside the company have taken the decision to impair more often.

Figure 3 Impairment decision offset by CEO tenure

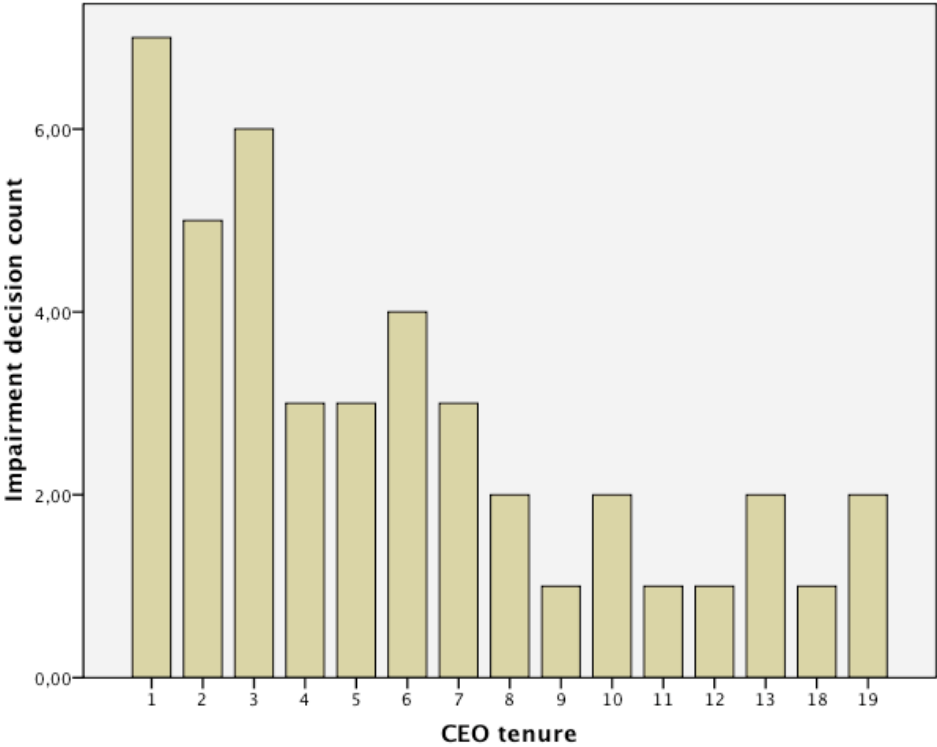
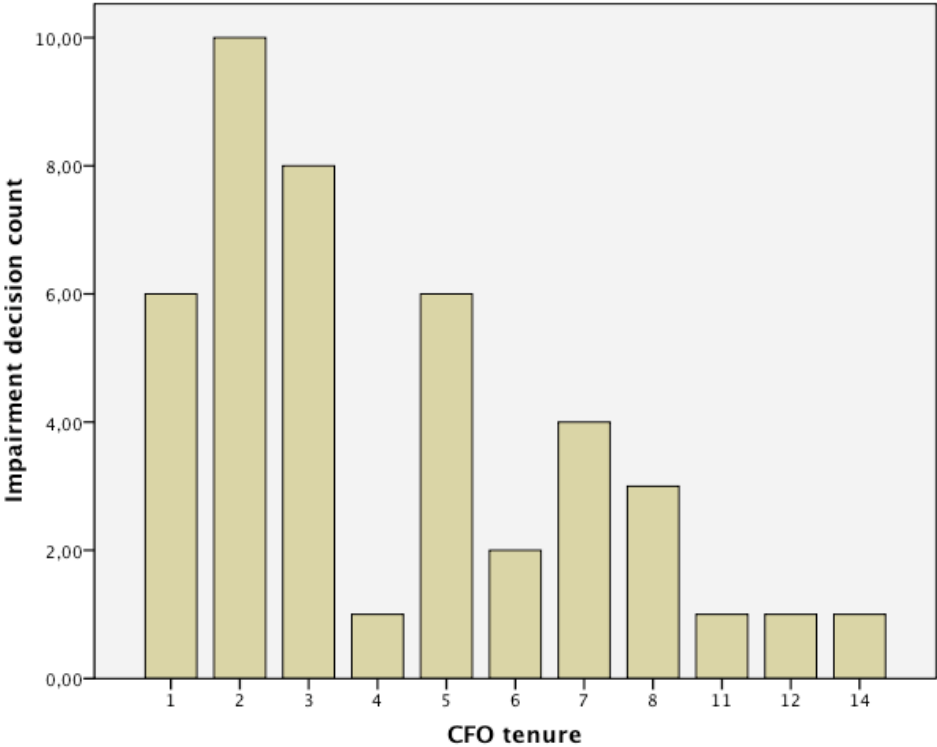


Figure 4 Impairment decision offset by CFO tenure



When taking a closer look at companies that have taken the decision to impair goodwill, it becomes apparent that impairment decisions were taken more frequently in companies where the CEOs were in charge for shorter periods of time. A similar pattern applies to



impairment decision frequency when offset against the tenure lengths of CFOs. These patterns are shown in figures 3 and 4.

#### 4.4 Summary

This chapter introduced the study, which is the subject of this master thesis. My study, which is mainly inspired by the work of Master-Stout e.a. (2007) and Greiger and North (2007), is aimed at answering the following research question:

*Are tenure and prior employment of the CEO and the CFO associated with a company's financial reporting behavior in relation to the magnitude of goodwill impairment?*

This chapter stated the hypotheses to be tested and the multivariate regression model that I will use to test them. In short I expect there to be a negative relationship between the magnitude of the goodwill impairment charge and the executive tenure. Additionally, I expect an executive being hired from within the company to have a decreasing effect on the goodwill impairment charges.

Furthermore, this chapter explained the data collection process and summarized the descriptive statistics for the sampled companies, which are the subjects of my study. My study examined the financial data of 58 major European companies listed in the FTSE Eurotop 100 Index during the period 2006-2007, resulting in 116 observations. In 37% of the cases, goodwill impairments were observed. Largest average absolute and relative (measured against revenues) impairment losses were observed in the telecommunications industry. The average CEO tenure for companies within the sample was 5.9 years; the average CFO tenure was 4.5 years. Additionally, 67% of the CEOs in the sample, prior to their appointment, were employed by the same company for less than three years, which classified them as 'internal hires' for the purpose of my study. 54% of the CFOs were classified as internal hires. When examining the subsample of companies that have taken a decision to impair goodwill, the frequency of the impairment decision decreased as observed tenures of CEOs increased. A similar pattern was observed between the frequency of impairment decisions and CFO tenure.

## Chapter 5: Research findings and evaluation

### 5.1 Introduction

In this chapter, I describe the outcomes of my study, which I have introduced in the previous chapter. The first section recaps the research question and the hypotheses I have formulated in the previous chapter. Additionally, it will explain the several steps I have taken within my study and the different regressions I have run to test the hypotheses. In the following section, I report the outcomes of these regression analyses. Finally, I evaluate the outcomes of my study, consider the alternative explanations for the outcomes, state the limitations of my research design and make subsequent recommendations for future research.

### 5.2 Steps of the analysis

The goal of my study was to find the answer to the following research question:

*Are tenure and prior employment of the CEO and the CFO associated with a company's financial reporting behavior in relation to the magnitude of goodwill impairment?*

The answer to this research question was to be obtained the test of the following hypotheses:

*H<sub>1</sub>: Shorter CEO tenure corresponds with higher goodwill impairment charges.*

*H<sub>2</sub>: Companies with CEOs, who have been employed by the same company two years or less, will take relatively higher goodwill impairment losses.*

*H<sub>3</sub>: Shorter CFO tenure corresponds with higher goodwill impairment charges.*

*H<sub>4</sub>: Companies with CFOs, who have been employed by the same company two years or less, will take relatively higher goodwill impairment losses.*

To test the hypotheses that I have introduced in the previous chapter, I chose to use the following multivariate regression model:

$$IMP_{it} = \alpha + \beta_1 CEO\_TENURE_{it} + \beta_2 CEO\_INTERNAL_{it} + \beta_3 CFO\_TENURE_{it} + \beta_4 CFO\_INTERNAL_{it} + \beta_5 EBITDA_{it} + \beta_6 INCOME_{it} + \beta_7 SIZE_{it} + \beta_8 LEV_{it} + \varepsilon$$

To measure the relationship between the dependent variable and the independent variables, I executed the analysis in several steps. First of all, I executed each regression analysis using the dependent variable IMP calculated in two ways: the absolute value of the impairment charge measured in thousands of Euros, and the relative value of the impairment charge measured against total revenue.

Secondly, I executed three types of regression with regard to the executive properties data. Firstly, I applied the abovementioned model, accounting only for the CEO properties, to measure the 'pure' association between IMP and CEO tenure and prior employment. This resulted in the following regression model:

$$IMP_{it} = \alpha + \beta_1 CEO\_TENURE_{it} + \beta_2 CEO\_INTERNAL_{it} + \beta_3 EBITDA_{it} + \beta_4 INCOME_{it} + \beta_5 SIZE_{it} + \beta_6 LEV_{it} + \varepsilon$$

Secondly, I did the same for the CFO tenure and prior employment properties, resulting in the following model:

$$IMP_{it} = \alpha + \beta_1 CFO\_TENURE_{it} + \beta_2 CFO\_INTERNAL_{it} + \beta_3 EBITDA_{it} + \beta_4 INCOME_{it} + \beta_5 SIZE_{it} + \beta_6 LEV_{it} + \varepsilon$$

Thirdly, I tested my main model, mentioned above, which controlled the associations between IMP and one executive type tenure and prior employment, for that of the other.

Furthermore, with regard to the tenure variables, I also used two measures. First, each regression was executed using the tenure data measured in years. Secondly, I re-performed each regression using the natural logarithm of the tenure data to control for the relatively larger effect of longer tenures on the regression.

In the last step, I performed all of the abovementioned tests on data from my entire sample and on a subsample of the 43 companies that impaired goodwill during the observed period. Appendix 6 of this master thesis contains the entire overview of the attained results of my study, such as the values of the coefficients of the models, the F-values, the adjusted R<sup>2</sup>-values and the Durbin-Watson-scores.

Before I discuss the results obtained from the different steps I have taken to test the association, I will mention the overall observations regarding the fit of the models. The ANOVA F-values of all regressions I have run, indicate that indeed there is a linear relationship between the dependent and independent variables in the models. The Durbin-Watson statistics, which are all close to the value of two, indicate that all models described above meet the assumption of independent errors of the regression. Furthermore, the

adjusted  $R^2$  values are quite high, the smallest being 0.721. These values indicate that the models I am about to describe fit the data well.

### 5.3 Multivariate regression outcomes

#### 5.3.1 The correlation matrix

To test for the existence of multicollinearity within my model, I have constructed a correlation matrix. As my variables, do not solely include interval data, the Spearman correlation coefficients were calculated instead of Pearson correlation coefficients. The following table describes the results obtained from the test of correlations between the independent variables of my model.

Table 15 Correlations Spearman's rho

	EBITDA	INCOME	SIZE	LEV	CEO_TENURE	LN_CEO_TENURE	CEO_INTERNAL	CFO_TENURE	LN_CFO_TENURE	CFO_INTERNAL
EBITDA	1	<b>** .79</b>	<b>** .64</b>	.16	-.10	-.10	.05	-.06	-.06	.06
INCOME		1	<b>** .39</b>	-.11	-.02	-.02	.16	-.03	-.03	.10
SIZE			1	<b>** .36</b>	-.03	-.03	-.00	-.03	-.03	.14
LEV				1	.01	.01	-.09	.06	.06	.10
CEO_TENURE					1	<b>** 1</b>	.12	.10	.10	-.10
LN_CEO_TENURE						1	.12	.10	.10	-.10
CEO_INTERNAL							1	-.02	-.02	<b>* .20</b>
CFO_TENURE								1	<b>** 1</b>	.04
LN_CFO_TENURE									1	.04
CFO_INTERNAL										1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

This table shows only four cases of significant correlation between variables at  $\alpha < .01$ , and five at  $\alpha = .05$ . Compared to other variables, the EBITDA and INCOME variables are correlated to a larger degree. The fact that these variables 'move' in the same direction is not entirely surprising as these are both measures of proceeds of a company. This could be considered a reason to remove one of the two variables from the model. However, as long as the correlation coefficient does not closely approximate the value of one, it is difficult to make a conclusive judgment call on a correlation. Even the textbooks on statistics do not (cannot) provide a practical rule-of-thumb for determining an unacceptable correlation. Additionally, removing a variable poses a challenge of its own, as 'there is no way of knowing which variable to remove' (Field, 2009).

Furthermore, the EBITDA, INCOME and LEV are correlated with SIZE. This also is not entirely surprising, as it make sense that in most cases larger companies would have larger turnovers and larger profits. This is also the reason why I believe, it is important to include SIZE as a control variable, since one would expect larger companies to have larger ‘everything’, including goodwill amounts and larger impairment charges.

The correlations between other variables in the model are very small, and for the exception of CEO and CFO prior employment (the size of which is also relatively small), are entirely insignificant.

Overall, these results indicate at least some degree of multicollinearity within the model.

### 5.3.2 CEO properties

In this section, I will describe the results of analysis of association of CEO tenure and of prior employment with impairment charges, which is measured through the following model:

$$IMP_{it} = \alpha + \beta_1 CEO\_TENURE_{it}, \beta_2 CEO\_INTERNAL_{it}, \beta_5 EBITDA_{it}, \beta_6 INCOME_{it}, \beta_7 SIZE_{it}, \beta_8 LEV_{it} + \varepsilon$$

I tested this model using the data from my entire sample, as well as performing separate tests on the data from the subsample of companies that impaired goodwill during the observed period. Furthermore, I used two different definitions of the independent variable IMP (measured in absolute and in relative values), and also of the independent variable CEO\_TENURE (measured in years and as a natural logarithm). This has resulted in different outcomes.

First of all, it is important to note that in all cases the association between the control variables and the dependent variable is statistically significant at  $\alpha < .05$ . When analysis was performed on the entire sample and the subsample using the absolute values of  $IMP_{it}$ , regardless of the definition of CEO\_TENURE, the outcomes regarding SIZE and leverage were in line with expectations I have formulated in the previous chapter. As I expected, the absolute size of impairment charges is positively associated with the size of a company and is negatively associated with the degree of leverage of a company. This outcome prevails when IMP is measured in relative values, except when the tenure for the entire sample is expressed as a logarithm. In this exceptional case, impairment charges measures as a percentage of total revenues, are negatively associated with the size of a company and are positively associated with the degree of leverage of a company, contrary to expectations.

The association between the other control variables EBITDA and INCOME differs depending on whether the analysis is applied to the entire sample or the subsample. For the entire sample, the absolute impairment charges are positively associated with the EBITDA and negatively associated with INCOME. This outcome could be a sign of income smoothing practices, as the association might indicate that the existence of larger EBITDA which can more easily absorb additional losses, allows for higher impairment charges. The negative relationship between impairment charges and net income could be an indication of earnings bath practices. However, when I measure IMP in relative terms, the directions of these associations reverse. The direction of the coefficients of EBITDA and INCOME in the subsample is uniform, regardless of the measure of IMP. Impairment charges are negatively associated with EBITDA and positively associated with net income. Accordingly, for companies that impaired goodwill, the EBITDA coefficient seems to be a sign of earnings bath practices and net income coefficient seems to be a sign of income smoothing association. These contradictory outcomes make it difficult to draw any conclusions about the association between the control variables and the dependent variable.

**Table 16 Regression outcomes CEO properties**

		<i>Exp.</i>	Abs.	Rel.		Abs.	Rel.
Entire sample	EBITDA	+/-	+	-	EBITDA	+	-
	INCOME	+/-	-	+	INCOME	-	+
	SIZE	+	+	+	SIZE	+	-
	LEV	-	-	-	LEV	-	+
	CEO_TENURE	-	+*	+**	LN_CEO_TENURE	+**	+**
	CEO_INTERNAL	-	+**	+**	CEO_INTERNAL	+**	+**
Subsample	EBITDA	+/-	-	-	EBITDA	-	-
	INCOME	+/-	+	+	INCOME	+	+
	SIZE	+	+	+	SIZE	+	+
	LEV	-	-	-	LEV	-	-
	CEO_TENURE	-	+	+**	CEO_TENURE	+**	+**
	CEO_INTERNAL	-	+**	+*	CEO_INTERNAL	+**	+**

\*\* . Coefficient is significant at the 0.05 level

\* . Coefficient is significant at the 0.10 level

The outcomes regarding the independent variables of interest, the CEO properties, are consistent in all cases. However, they are entirely not as expected. CEO tenure is positively associated with impairment charges. Furthermore, compared to CEOs hired from outside the company, CEOs hired from inside the company are associated with higher impairment charges. These associations are significant at  $\alpha=0.05$  for both the entire sample and the subsample, when tenure is expressed as a logarithm. When tenure is expressed in years, measuring impairment relative to revenues, gives slightly better significance results. Overall,

these findings indicate that H<sub>1</sub> and H<sub>2</sub> of my research design are false. These findings are summarized in table 16.

### 5.3.3 CFO properties

This section describes the result of the analysis of the association between impairment charges and CFO tenure and prior employment, which is measured through the following model:

$$IMP_{it} = \alpha + \beta_3 CFO\_TENURE_{it} + \beta_4 CFO\_INTERNAL_{it} + \beta_5 EBITDA_{it} + \beta_6 INCOME_{it} + \beta_7 SIZE_{it} + \beta_8 LEV_{it} + \varepsilon$$

CFO properties regression analyses were executed taking the same steps as mentioned before for the CEO. The associations between the control variables and the dependent variable are statistically significant at  $\alpha=0.05$  for all models discussed in this section. The associations between the control variables and IMP, are the same as described in the previous section, when the model is tested using the data of the entire sample and the tenure variable is expressed in years. Here too, EBITDA and INCOME coefficients 'behave' differently depending on the definition of IMP.

When the model was tested on the entire sample using the tenure variable expressed as a logarithm, the directions of the association of the EBITDA and INCOME with IMP were the exact opposite of those in the model with tenure measured in years. When I tested the model on the subsample data, the directions of the association were consistently the same regardless of the definition of impairment charges of the tenure variable: in the subsample, the EBITDA was negatively associated with the size of impairment charges, while the INCOME was positively associated with IMP. The directions of the associations of both SIZE and LEV are in accordance with expectations in all cases.

The coefficients of the independent variables of interest were insignificant at  $\alpha=.05$  for all tests performed on the data from the entire sample. Within the subsample, the association between prior employment of the CFO and the magnitude of impairment charges is significant. For this population, compared to CFOs hired from outside the company, CFOs hired from inside the company are associated with relatively higher impairment charges, contrary to expectations. As such, the validity of H<sub>3</sub> and H<sub>4</sub> was not established for the entire sample, and validity of H<sub>3</sub> was not established for the subsample either. H<sub>4</sub> was proven to be significantly false for the data of the subsample. These findings are summarized in table 17.

**Table 17 Regression outcomes CFO properties**

		<i>Exp.</i>	<i>Abs.</i>	<i>Rel.</i>		<i>Abs.</i>	<i>Rel.</i>
Entire sample	EBITDA	+/-	+	-	EBITDA	-	+
	INCOME	+/-	-	+	INCOME	+	-
	SIZE	+	+	+	SIZE	+	+
	LEV	-	-	-	LEV	-	-
	<i>CFO_TENURE</i>	-	-	+	<i>LN_CFO_TENURE</i>	-	-
	<i>CFO_INTERNAL</i>	-	+*	+	<i>CFO_INTERNAL</i>	+*	+
Subsample	EBITDA	+/-	+	+	EBITDA	+	+
	INCOME	+/-	-	-	INCOME	-	-
	SIZE	+	+	+	SIZE	+	+
	LEV	-	-	-	LEV	-	-
	<i>CFO_TENURE</i>	-	+	+	<i>LN_CFO_TENURE</i>	+	+
	<i>CFO_INTERNAL</i>	-	+**	+**	<i>CFO_INTERNAL</i>	+**	+**

\*\* . Coefficient is significant at the 0.05 level

\* . Coefficient is significant at the 0.10 level

### 5.3.4 Combined model

In this section I will describe the outcomes of the regression analyses, which included variables of both CEO and CFO tenure and prior employment. This model tests the association between the magnitude of impairment charges and CEO properties, while controlling for the association of CFO properties, and vice versa, at the same time. For this purpose I tested the following model:

$$IMP_{it} = \alpha + \beta_1 CEO\_TENURE_{it} + \beta_2 CEO\_INTERNAL_{it} + \beta_3 CFO\_TENURE_{it} + \beta_4 CFO\_INTERNAL_{it} + \beta_5 EBITDA_{it} + \beta_6 INCOME_{it} + \beta_7 SIZE_{it} + \beta_8 LEV_{it} + \varepsilon$$

The first observation that stands out from the outcomes of these analyses, is that the associations between the dependent variable and the independent variables are consistent regardless of the definition of the dependent variable IMP. However, the associations between the control variables and the dependent variable differ when I compare the outcomes of the entire sample data and the subsample data. Overall, results are consistent in each group, regardless of the definition of the tenure variable.

With respect to control variables, all associations are significant at  $\alpha < .05$ . When the model is tested for the entire sample, the EBITDA is positively associated with the size of impairment charges, while INCOME is negatively associated with IMP. This might indicate that when the decisions not to take an impairment charge are taken into account, the EBITDA association might be a sign of income smoothing practices. The negative relationship between impairment charges and net income, on the other hand, could be an indication of earnings bath practices. For the subsample, these associations are however reversed. These



contradictory outcomes, make it difficult to draw a conclusion about the association between these control variables and the dependent variable.

Company size is, as expected positively associated with the magnitude of impairment charges. The degree of leverage is negatively associated with the magnitude of impairment charges, which is also as expected.

With respect to independent variables of interest, several associations become clear. The association between the CEO tenure and the magnitude of impairment charges is significant at  $\alpha < .05$  in all cases, except for the test of the subsample using the absolute values of IMP and using the tenure variable expressed in years. When tests are performed on the data of the entire sample CEO prior employment is significant at  $\alpha < .05$ , except when IMP is measured in relative values and the CEO tenure is measured in years. Overall, this means that when the decision not to impair is taken into account and the model controls for the association of CFO properties, the association between the CEO tenure and the magnitude of impairment charges is positive. Furthermore, compared to CEOs hired from outside the company, CEOs hired from inside the company are associated with higher impairment charges. Summarizing,  $H_1$  and  $H_2$  are proven to be false for the entire sample.

In the subsample, the association between the CEO tenure and the magnitude of impairment charges is significant at  $\alpha < .05$ , except for when IMP is measured in absolute values and tenures are measured in years. The association with CEO prior employment is not significant within the subsample. As such,  $H_1$  has proven to be false within the subsample, and validity of  $H_2$  has not been established.

The association between CFO tenure and the magnitude of impairment charges when controlled for the associations of CEO properties, remains insignificant at  $\alpha < .05$  in all cases. The validity of  $H_3$  thus is not established. Furthermore, the association between the magnitude of impairment charges and CFO prior employment is insignificant when analyzing the data of the entire sample. However, within the subsample, CFO prior tenure association is significant at  $\alpha < .05$ , when impairment charge is measured in absolute values, regardless of the definition of tenure. The absolute size of goodwill impairment charges is positively associated with a CFO being promoted from inside, when the decisions not to take goodwill impairment losses is disregarded.  $H_4$  is thus proven to be false within the subsample.  $H_4$  validity has not been established for the entire sample. These findings are summarized in table 18.

Table 18 Regression outcomes controlled for both types of executives

		Exp.	Abs.	Rel.		Abs.	Rel.
Entire sample	$\beta_1$ EBITDA	+/-	+	+	$\beta_1$ EBITDA	+	+
	$\beta_2$ INCOME	+/-	-	-	$\beta_2$ INCOME	-	-
	$\beta_3$ SIZE	+	+	+	$\beta_3$ SIZE	+	+
	$\beta_4$ LEV	-	-	-	$\beta_4$ LEV	-	-
	$\beta_5$ CEO_TENURE	-	***	***	$\beta_5$ LN_CEO_TENURE	***	***
	$\beta_6$ CEO_INTERNAL	-	***	+	$\beta_6$ CEO_INTERNAL	***	***
	$\beta_7$ CFO_TENURE	-	-	-	$\beta_7$ LN_CFO_TENURE	-	-
	$\beta_8$ CFO_INTERNAL	-	+	+	$\beta_8$ CFO_INTERNAL	+	+
Subsample	$\beta_1$ EBITDA	+/-	-	-	$\beta_1$ EBITDA	-	-
	$\beta_2$ INCOME	+/-	+	+	$\beta_2$ INCOME	+	+
	$\beta_3$ SIZE	+	+	+	$\beta_3$ SIZE	+	+
	$\beta_4$ LEV	-	-	-	$\beta_4$ LEV	-	-
	$\beta_5$ CEO_TENURE	-	+	***	$\beta_5$ LN_CEO_TENURE	***	***
	$\beta_6$ CEO_INTERNAL	-	+	+	$\beta_6$ CEO_INTERNAL	+	+
	$\beta_7$ CFO_TENURE	-	+	+	$\beta_7$ LN_CFO_TENURE	+	+
	$\beta_8$ CFO_INTERNAL	-	***	+	$\beta_8$ CFO_INTERNAL	***	+

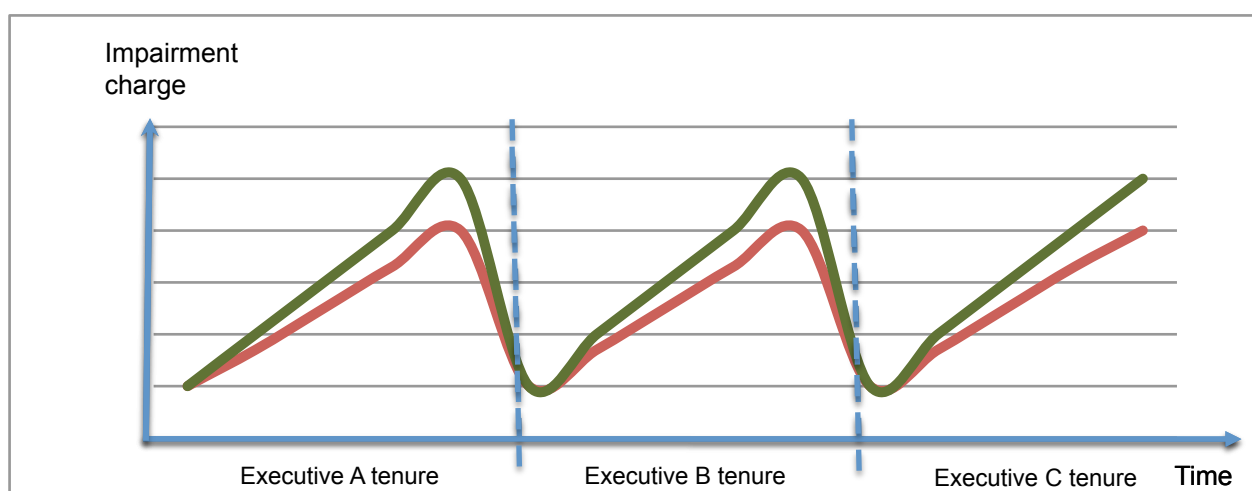
\*\*. Coefficient is significant at the 0.05 level

\*. Coefficient is significant at the 0.10 level

## 5.4 Evaluation of the outcomes, limitations and future research

Recall figure 2 in section 4.2.2 of this master thesis. This figure depicted nature of the association I hypothesized, exists between executive tenure and the magnitude of impairment charges: impairment charges decreased throughout the length of the tenure of a CEO.

Figure 5 Outcome analysis CEO properties association



Based on the outcomes of my analysis, which I have described in the previous sections of this chapter, I have arrived at a conclusion at odds with my initial statements, which is best depicted in the figure 5.

The red line still depicts the magnitude of impairment charges developing over a period of time as executive change, specified for an executive hired from outside the company. The green line depicts the same relationship for an executive who is hired from within the company relative to the magnitudes of the impairment charges taken by an internal executive. Contrary to my expectations described in the previous chapter, I find that CEO tenure is positively associated with the magnitude of goodwill impairment charges. This is why, in this figure, impairment charges increase during the course of the tenure of a CEO. These results mean that the hypothesis that CEOs tend to take earnings baths in the early stages of their tenure, so losses can more easily be blamed on their predecessors, is false for the data in my sample. Surprisingly, this outcome contradicts the association described in the prior research that has been described in chapter 3 of this master thesis (Moore 1973, DeAngelo 1987, Pourciau 1993, Francis e.a. 1996, Lapointe 2005, Ramanna and Watts 2007, Zang 2008, Bengtsson e.a. 2007, Masters-Stout e.a. 2007).

Additionally, compared to CEOs hired from outside the company, internally hired CEOs correspond with larger goodwill impairment charges. This falsifies the second type of hypotheses of my thesis that, compared to their counterparts, internally hired executives would impair goodwill by smaller amounts as they are more 'personally invested' in previously taken strategic acquisition decisions and thus would lack a 'fresh perspective'. This outcome is less surprising as the results of prior research on this topic were inconclusive (Pourciau 1993, Bengtsson e.a. 2007, Masters-Stout e.a. 2007).

Contrary to my expectation, I have not established a significant association between the CFO tenure and prior employment variables and the magnitude of impairment charges. At best, I can say that if the decision not to take impairment charges is disregarded and only the data of the remaining subsample is tested, CFO prior employment is significantly associated with the magnitude of impairment charges. Within the subsample compared to CFOs hired from outside the company, internally hired CFOs are associated with larger impairment amounts.

In short, I can say that even though the results were contrary to expectations, the tests of the first two hypotheses of my study did produce significant results. This makes it interesting to consider alternative explanations, which could rationalize these outcomes and consider the subsequent implications.

The first question I am asking myself based on the outcomes of my study, is: why would impairment charges increase during the course of employment of a CEO? More specifically, what incentives could there be for managers to want to increase impairment charges late, instead of early, in their tenure? An alternative explanation to wanting to take earnings baths early in their tenure, could be the job security argument. Contrary to the arguments behind my hypotheses, it is conceivable that CEOs might want to show good results (immediately) after their appointment and would want to avoid 'unnecessary' losses, to justify their appointment and secure their position. This desire might even induce 'upward earnings management'. CEOs, who have acquired 'relational goodwill' for their positive performance<sup>37</sup> throughout the course of their tenure, could also believe that this would be sufficient to mitigate any harm to their reputation from losses taken in later stages of their tenure, and thus would take these losses easier than 'younger' CEOs.

Furthermore, the influence of CEO employment contracts and compensation schemes, which is not taken into account in this study, could have alternative explanatory power for the established association between the magnitude of impairment charges and CEO tenure. These contracts and payment schemes are usually constructed (in line with the agency theory) in such way as to align management incentives with company's/shareholders best interests. Presuming that earnings management is motivated by management self-interest and that employment contracts are constructed effectively, this should lead to a reduction of earnings management. Similarly, Beatty and Weber (2005) found that managers who are subject to more binding 'contracts that include effects of accounting changes...will prefer to delay expense recognition'. Including executive compensation (plans) into a research model could be a consideration for future research.

The second question that I ask myself is: why do the outcomes of my study indicate that internally promoted CEOs impair relatively more than CEOs hired from outside the company? First of all, it is important to note that the majority (69%) of CEOs whose data were included in this study, were classified as internal hires. This fact, by itself, might have a distortive effect on the outcomes of the study.

Additionally, perhaps when it comes to employment history, the magnitude of the goodwill impairment charges is not best explained by the duration of CEO prior employment by the same company before his appointment. Reconsidering my prior hypothesis, I believe that the assumption that a manager becomes personally involved in prior acquisition due to his mere presence in the same company, might be too general. Instead, entrenchment could better be

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<sup>37</sup> For example, through the execution of several successful mergers and acquisitions that did not result in goodwill impairment losses.

defined by the fact whether the manager in question was *actually* involved in the decision process that preceded a specific acquisition and/or the subsequent allocation process of goodwill among the CGU. Some support for this idea was also found in Beatty and Weber's study (2005), which linked the likelihood of a SFAS 142 impairment to the likelihood of a CEO making 'the original acquisition'. Again, future studies can inquire to the feasibility of researching prior employment from this angle.

An alternative explanation could also be that the prior employment of an executive could represent experience and knowledge. An executive, who has been with the same company for a longer period of time, is likely to have specific inside knowledge that would allow him to make a better judgment about the value of goodwill, and in turn might make it 'easier' to take an impairment charge compared to a counterpart who lacks similar experience and knowledge. This could result in the observed relationship between prior employment and the size of impairment charges.

Thirdly, I ask myself what other issues there might be that might have influenced or limit the outcomes of my study. First, there is the fact that contrary to most of prior research that has been done on the subject of goodwill impairment and/or the influence of CEO properties (which often have been performed in the United States), my study is aimed at European companies. For example, this could account for the existence of cultural differences between my and the prior research. Perhaps, the European context and tradition with regard to expectations and the regulation of executive behavior, contribute to a less competitive executive environment, which results in less opportunistic behavior.

Furthermore, there could be other issues with regard to the chosen sample. For instance there is a noticeable presence of former state owned companies in my sample. As such the oil & gas and the telecommunication sectors combined, account for almost a quarter of the companies in the sample. One can speculate whether these companies are subject to a specific kind of (government-like) corporate culture, which most probably does not exist in the American context. These companies might also still be subject to governmental influence and specific regulation, which would reduce the amount of discretion available to managers.

In addition, the descriptive statistics reveal that that the telecommunications industry accounts for the largest goodwill impairment losses observed within my sample. It is a commonly known fact that during the observed period companies in that particular industry underwent several economic adversities, such as the devaluation of purchased UMTS frequencies. The earlier mentioned heterogeneity problem surfaces with regard to this issue. It is very well possible that there were real economic causes to the impairment losses taken in the telecommunications industry. As these are the most significant impairment losses

within my sample, this could undermine the validity of the detected relationship between impairment charges and CEO properties. To control for this problem, I ran an additional regression, which included both CEO and CFO properties, on my data, while removing the entire telecommunication sector. The association between both absolute and relative impairment charges, and CEO tenure remained significant at  $\alpha < .05$  (also, when the decision not to take impairment charges was disregarded). However, the fit of the model measured in  $R^2$ , decreased significantly to levels lower than 0.10. The CEO prior employment variables and both CFO variables were insignificant.

The heterogeneity problem could be addressed through the expansion of the sample and the amount of observations. These are of course the obvious limitations of my study, as it does cover only two years<sup>38</sup> worth of financial data of a limited number of companies. This is an inherent consequence of the intensive nature of data hand-collection process with regard to the information about CEO tenure and prior employment in the European context. Furthermore, the sample could be expanded with regard to the amount of companies in it. A matter for future research is to consider an entire different sample of companies, or consider including financial institutions in the sample.

Finally, based on my own analysis of reporting standards with regard to goodwill impairment and predictions formed in prior research about the susceptibility of goodwill impairment testing to managerial discretion, I formed expectations about goodwill impairment charges to be a likely item to be used for earnings management. This assumption can also be a subject for critical review. It could be a subject to future research to consider to what degree it is really likely that goodwill impairment test is used as a 'tool' to manage earnings. Perhaps, other 'gaps' in financial reporting standards are used relatively more often to manage earnings (on a larger scale), and these 'earnings management tools' could also be tested for association with executive tenure and employment information.

## 5.5 Summary

In this chapter, I reported the outcomes of the study, which was the subject of this master thesis. The outcomes that resulted from the regression test I have run, were opposite of the hypotheses I have formulated in the previous chapter. Contrary to my expectations, I have found that CEO tenure is positively associated with the magnitude of goodwill impairment charges. Additionally, I have found that, compared to CEOs hired from outside the company,

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<sup>38</sup> The partially due to the fact that I have chose not to use 2005 data, as this was a transitional period of mandatory introduction of IFRS. And, due to the fact that in the starting phase of the writing process of this master thesis the 2008 financial report were not yet completely available.

internally hired CEOs correspond with larger goodwill impairment charges. Regrettably, I have not established a significant association between the CFO tenure and prior employment variables and the magnitude of impairment charges. In section 5.3, I evaluate these outcomes and present alternative explanations. I also address the limitations of my research design and make some suggestions for future research.

In the following chapter I will present an overview of this master thesis and give an answer to the main research question of my study.

## Chapter 6: Summary and conclusion

The purpose of this master thesis was to find the answer to the following research question:

*Are tenure and prior employment of the CEO and the CFO associated with a company's financial reporting behavior in relation to the magnitude of goodwill impairment?*

Before examining prior research on this subject, I have examined the current financial reporting standards regarding the treatment of goodwill, IFRS 3 and IAS 36, in chapter 2 of this master thesis. In particular, I looked at the yearly test for impairment, which determines whether carrying amount of goodwill in the books does not exceed the recoverable amount. As goodwill is not an asset that can generate cash-flows on its own, its recoverable amount is determined by the fair value less cost to sell, or value in use, of the cash-generating unit it has been allocated to after acquisition. Goodwill is the first asset to be impaired, if the recoverable amount of the cash-generating unit – which is likely to be determined through value in use valuation method – does not match its carrying value. As I examined the abovementioned standards, I discovered that there was, in my opinion, significant room for managerial discretion with regard to the valuation of goodwill through the means of an impairment test. For example, the timing of the annual test can be used as an inconspicuous opportunity to take losses. With regard to the calculation of the recoverable amount of a cash-generating unit with allocated goodwill, it has also become clear that management has an opportunity to use their specific knowledge to influence the outcomes of the calculations, to avoid having to take a loss or to increase the likelihood of one. The process of allocating of goodwill across the cash-generating units, by itself provides opportunities to avoid having to take a loss, though for example an unfair aggregation of cash-generating units.

After having established that the current financial reporting standards for goodwill are indeed susceptible to (ab)use through managerial discretion, I continued this master thesis in the following chapter by examining prior research on the topic of companies' (opportunistic) financial reporting behavior with regard to goodwill impairment testing and executive properties. Before doing so however, I first discussed the ideas behind the Positive Accounting Theory, which I would later base my study on. The commonly used opportunistic perspective on PAT predicts, based on the ideas of the agency theory, that self-interested actors will use any available room for discretion with regard to financial accounting and reporting to their own advantage. Reviewing several possible incentives executives would have to influence financial reporting in general, I established that this practice of 'earnings management' could be aimed at both, increasing the reported income, and decreasing it through income smoothing and taking of earnings baths. Earnings management if often



achieved through asset distortion, manifesting itself as either asset overstatement or assets understatement.

Examining prior research, I discovered that in a number of studies, researches found that it is likely that CEOs tend to take earnings baths early in their tenure, as the losses can then easily be blamed on their predecessors. An additional explanation was that, this also created a lower benchmark for measuring their future financial performance (Moore 1973, DeAngelo 1987, Pourciau 1993, Francis e.a. 1996, Lapointe 2005, Ramanna and Watts 2007, Zang 2008, Bengtsson e.a. 2007, Masters-Stout e.a. 2007). Furthermore, there was mixed evidence in the support of the idea that senior managers who are in a later stage of their tenure tend to overstate their financial performance (DeAngelo 1987, Pourciau 1993, Masters-Stout e.a. 2007). Studies that specifically related CEO tenure to write-offs, and even more specifically to goodwill write-offs, found there to be a negative association between tenure and the size of write-offs (Pourciau 1993, Francis e.a. 1996, Beatty and Weber 2005, Lapointe 2005, Ramanna and Watts 2007, Zang 2008, Masters-Stout e.a. 2007). Also, the nature of a specific turnover process and the prior employment of the incoming CEO (hired from within or outside the company) have been considered as an explanatory variable by some studies (Pourciau 1993, Bengtsson e.a. 2007, Masters-Stout e.a. 2007). These studies predicted that internal hires, due to their entrenched position within the company, would correspond with relatively lower impairment charges. However, the results on this topic have not proven to be conclusive. These findings appealed to me and also made me think whether the same reporting behavior patterns could also apply to the role of the CFO of a company. I discovered that only few studies on the role of the CFO within financial reporting have been executed to date.

The review of prior research made me arrive at the following hypotheses to be tested in my study:

*H<sub>1</sub>: Shorter CEO tenure corresponds with higher goodwill impairment charges.*

*H<sub>2</sub>: Companies with CEOs, who have been employed by the same company two years or less, will take relatively higher goodwill impairment losses.*

*H<sub>3</sub>: Shorter CFO tenure corresponds with higher goodwill impairment charges.*

*H<sub>4</sub>: Companies with CFOs, who have been employed by the same company two years or less, will take relatively higher goodwill impairment losses.*

After a certain selection process, the sample of my study consisted of 58 major European companies listed in the FTSE Eurotop 100 Index. Examining the financial data for the

period 2006-2007 resulted in 116 observations. In 37% of the cases, goodwill impairments were observed. Largest average absolute and relative (measured against revenues) impairment losses were observed in the telecommunications industry. The average CEO tenure for companies within the sample was 5.9 years; the average CFO tenure was 4.5. Additionally, 67% of the CEOs in the sample, prior to their appointment, were employed by the same company for less than three years, which classified them as 'internal hires' for the purpose of my study. 54% of the CFOs were classified as internal hires. When examining the subsample of companies that have taken a decision to impair goodwill, the frequency of the impairment decision decreased as observed tenures of CEOs increased. A similar pattern was observed between the frequency of impairment decisions and CFO tenure.

Using the data from the abovementioned sample, I tested my hypotheses applying the following regression model:

$$IMP_{it} = \alpha + \beta_1 CEO\_TENURE_{it} + \beta_2 CEO\_INTERNAL_{it} + \beta_3 CFO\_TENURE_{it} + \beta_4 CFO\_INTERNAL_{it} + \beta_5 EBITDA_{it} + \beta_6 INCOME_{it} + \beta_7 SIZE_{it} + \beta_8 LEV_{it} + \varepsilon$$

I tested this model using the data from the entire sample, as well as performing separate tests on the data from the subsample of companies that impaired goodwill during the observed period. Furthermore, I used two different definitions of the independent variable IMP (measured in absolute and in relative values), and also of the independent variable CEO\_TENURE (measured in years and as a natural logarithm). This has resulted in different outcomes. Secondly, I executed three types of regression with regard to the executive properties data. First, I applied the abovementioned model, removing the CFO variables and accounting only for the CEO properties, to measure the 'pure' association between IMP and CEO tenure and prior employment. After that, I did the same now removing the CEO tenure and prior employment properties, to measure the 'CFO effect'. Thirdly, I tested my main model, mentioned above, which controlled the associations between impairment charges and one executive type tenure and prior employment, for that of the other.

Contrary to my expectations formulated in chapter 4, I have found that CEO tenure is positively associated with the magnitude of goodwill impairment charges. These results mean that the hypothesis that CEOs tend to take earnings baths in the early stages of their tenure, so losses can more easily be blamed on their predecessors, is false for the data in my sample. Surprisingly, this outcome contradicts the association described in the prior research that has been described in chapter 3 of this master thesis (Moore 1973, DeAngelo 1987, Pourciau 1993, Francis e.a. 1996, Lapointe 2005, Ramanna and Watts 2007, Zang 2008, Bengtsson e.a. 2007, Masters-Stout e.a. 2007).

Additionally, compared to CEOs hired from outside the company, internally hired CEOs correspond with larger goodwill impairment charges. This falsifies the second type of hypotheses of my thesis that compared to their counterparts, internally hired executives would impair goodwill by smaller amounts, as they are more 'personally invested' in previously taken strategic acquisition decisions, and thus would lack a 'fresh perspective'. This outcome is less surprising as the results of prior research on this topic were inconclusive (Pourciau 1993, Bengtsson e.a. 2007, Masters-Stout e.a. 2007).

Contrary to my expectation, I have not established a significant association between the CFO tenure and prior employment variables and the magnitude of impairment charges. At best, I can say that, if the decision not to take impairment charges is disregarded and only the data of the remaining subsamples is tested, CFO prior employment is significantly associated with the magnitude of impairment charges. Within the subsample compared to CFOs hired from outside the company, internally hired CFOs are associated with larger impairment amounts.

These outcomes mean that the answer to my research question is as follows:

*The tenure and prior employment of the CEO are associated with a company's financial reporting behavior in relation to the magnitude of goodwill impairment. Goodwill impairment charges are likely to increase as the tenure of a CEO increases. CEOs promoted from inside the same company are likely to impair goodwill by larger amounts, compared to CEOs hired from outside the company. No evidence was found for a similar association between CFO tenure and prior employment, and goodwill impairment.*

Several considerations for future research on the topic of influence of executive tenure and other employment properties on the financial reporting behavior of companies regarding goodwill impairment follow from my study. Firstly, including executive compensation (plans) into a research model could add value. The issue of prior employment and the corresponding entrenchment hypotheses could also be reexamined in future studies. Perhaps, entrenchment could better be defined by the fact whether the manager in question, was *actually* involved in the decision process that preceded a specific acquisition, instead of merely being present in the same company for a 'significant' amount of time. Finally, future studies could consider expanding or altering the sample of companies I have used in my study, and also consider expanding the observed period.