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# **Impairment-testing of Goodwill**

**A Study of Companies' Reasoning Behind the Impairment-testing**

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## Abstract

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**Title: Impairment-testing of Goodwill - A Study of Companies' Reasoning Behind Impairment-testing**

**Background and Problem Discussion:** The amount of goodwill in Swedish companies has increased, while the write-offs have remained at a low level. The impairment-testing also demands a lot of discretion on part of the companies. This discretion will come to have considerable effect on the companies' impairment-testing results.

**Purpose:**

The purpose of this study is to examine how some industrial companies, reason behind the assumptions made in their impairment testing of goodwill, as well as to analyze some of the possible consequences of these assumptions.

**Limitations:** The study's focus is on the impairment of goodwill and will not analyze the reasons for why goodwill is capitalized. The study's focus will therefore be on IAS 36 Impairment of Assets, rather than IFRS 3 Business Combinations.

**Method:** A set of four semi structured interviews with three group reporting managers and two CFOs. Empirical data has also been gathered from companies' financial reports. The empirical data has been analyzed from a frame of reference focusing on the impairment of goodwill and institutional theory.

**Result and conclusions:** There is a established praxis in what method the studied companies have chosen to use. It also seems that the companies' auditors and the stock market have had a big impact in the development of this praxis. The evidence also suggests that the impairment-testing is institutionalized.

**Suggestions for Future Research:** For future research it would be interesting to further investigate the assessments used in impairment testing of goodwill. Another avenue for future studies could be to study auditors and their influence in company's decision process when it comes to choosing valuation methods and models.

**Keywords:** Impairment-testing, goodwill, institutionalization, value-in-use

## Summary of Abbreviations

<b>CGU</b>	<b>Cash Generating Unit</b>
<b>EBIT</b>	<b>Earnings before Interest and Taxes</b>
<b>FAS 142</b>	<b>FAS Standard - Goodwill and Other Intangible Assets</b> The Financial Accounting Standard Board's (FASB) standard for goodwill and other intangible assets. It is the US equivalent standard of IAS 36.
<b>IASB</b>	<b>International Accounting Standards Board</b> IASB is an independent standard-setting body that creates international accounting standards (IAS) for which all listed companies within the European Union (EU) has to follow.
<b>IFRS</b>	<b>International Financial Reporting Standards</b> See IASB
<b>IAS 36</b>	<b>Impairment of Assets</b> International Accounting Standard 36 - Impairment of Assets.
<b>IAS 38</b>	<b>Intangible Assets</b> International Accounting Standard 38 - Intangible Assets.
<b>OMXS</b>	<b>Nasdaq OMX Nordic Stockholm (Stockholmsbörsen)</b>
<b>ROE</b>	<b>Return on Equity</b> $ROE = \frac{Net\ Income}{Equity}$
<b>RONA</b>	<b>Return on Net Operating Assets</b> $RONA = \frac{Net\ Income}{(Fixed\ Assets + Net\ Working\ Capital)}$
<b>US GAAP</b>	<b>United States Generally Accepted Accounting Principles</b>
<b>WACC</b>	<b>Weighted Average Cost of Capital</b>

## Preface

The authors of this thesis would here like to extend thanks to everyone who helped in making this thesis a reality. The authors would like to give special mention to the following individuals:

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## Introduction

This first section of the thesis will begin by presenting a broad background to the study. This background will then be followed by a problem discussion, which aims to specify the problem that will be discussed in the thesis. The purpose and research questions of the study stem from this discussion and are also presented in this section. The final part of this section discusses some of the study's limitations.

## Background

Goodwill is growing in importance for many Swedish companies today. This is especially true in the case of acquisitions. Goodwill represents the future economic advantages the buyer expects from the acquisition. This means the buying company is willing to pay more than the assets are worth. There has been a growing trend over the last five years, in which the amount of goodwill associated with company purchases have increased. Of all acquisitions made by companies listed on the OMXS during 2010 about 56 % of the value paid for, was attributed to goodwill (Gauffin, Nilsson 2011).

Another thing worth noting is that relatively few companies perform write offs on their goodwill. One study concluded that around 17 % of all companies listed on the OMXS performed write-offs during 2001-2007 (Hamberg, Beisland 2009). This trend continued during 2008, despite the financial crisis. During that year 37 of the companies on the OMXS performed write-offs on their goodwill, this to a value corresponding to 1, 5 % of the total goodwill value. These numbers stand in strong contrast to companies reporting according to the US GAAP. During the same year the amount of goodwill write-offs in the United States was around 30 % of the total goodwill value (Gauffin, Thörnsten 2010).

The above mentioned studies indicate that Swedish companies are willing to pay an increased premium in its acquisitions. At the same time companies seem to think that the goodwill value the purchase premium results in will persist over longer periods of time. This is something that does not appear to be as common in other countries, i.e. the US. One possible explanation for this disparity may lay in the use of different methods and assumptions in goodwill valuation and impairment testing.

The problem with the impairment of goodwill is that it is based on the management's discretion and not on a valuation verifiable on an active market. The issue that might arise from this, as argued by Holthausen and Watts (2001), is that it increases the likelihood that companies become subject to (negative) management discretion. Ramanna (2010) further identified three firm characteristics that increase the probability of firms engaging in such opportunistic behaviour. These factors are:

- The first of these factors is the size and numbers of reporting units within a company. Companies with larger reporting units can "hide" goodwill with internally generated profits and losses. Many different reporting units within a company also allows managers to accelerate the impairment by allocating acquired goodwill to low-growth units or delay it by allocating the asset to a high-growth unit (Ramanna, 2010).
- The second factor that Ramanna (2010) discusses is a high fair-value-to-book-ratio and how this might allow some firms to avoid the losses of goodwill-impairment.
- The third factor, that increases the probability of a firm managing its impairments, is the unverifiability of the intangible assets. This is because a greater proportion of unverifiable intangible assets give companies more flexibility in determining the fair value of these net assets. This in turn creates a greater discretion in determining the impairment of the goodwill asset (Ramanna, 2010).

These studies indicate that companies might engage in opportunistic behaviour, as a result of the discretion involved in the impairment-testing. Another recent study by Lorentzon (2011) examined how fair-value valuation was conducted within the forestry- and property industries. As part of this the author also aimed to illuminate the development of the praxis on this area from an institutional perspective. In this study Lorentzon found that the companies studied were keen on presenting valuations that were seen as objective and neutral. The author further found that these companies have agreed with each other on how to solve a problem, in this case which valuation method to use, this he meant causes external legitimacy as well as internal security. The author also means that the exchange of information within these industries have created a norm which is generally acceptable (Lorentzon, 2011). This, naturally, raises the question if similar movements can be found in other areas, such as impairment of goodwill. This, in other word, presents another point of view that could help describe the happenings in the field of accounting.



## Problem Discussion

When it comes to testing for potential goodwill-impairment, there are two questions that need to be answered. The first question is at what point in time a company shall test for potential impairment. IAS 36 states two situations when a group shall perform a test for goodwill-impairment. If goodwill is allocated to a cash generating asset, impairment testing should take place annually, or when there is an indication of potential impairment. Goodwill that has not been allocated to a specific asset is to be tested for impairment when there is an indication of economic deterioration of goodwill (IAS 36).

The second issue to be resolved is how large of an economic deterioration the potential impairment represents. This is done by comparing the carrying value of the goodwill asset to its recoverable value. The recoverable value is the highest of the asset's value-in-use or fair value (IAS 36). Regardless of which method a company chooses to base its valuation on there is often a lot of the management's discretion involved. IAS 36 states that the best fair value calculations are based on the price that the asset would generate on the (active) market for such an asset. The value-in-use method involves assessing the future cash flow of an asset as well as taking into consideration the time value of money (IAS 36). The assumptions made for these methods are subjective in nature and changes in these can have a considerable effect on the results of the impairment testing (Schultze, 2005).

The process of impairment is undoubtedly difficult and much of the result is going to depend on the management's discretion. Different methods of estimating the future cash flows will impact the value of the impairment, and in some cases even affect whether a write-off is needed or not. Assumptions on things such as the cost of capital or growth rate may also differ and lead to different results between two companies. This information however is something that is not found in the consolidated financial reports, despite the fact that it is central to the company's future earnings. This information is therefore likely to be important to the company's stakeholders when they perform assessments of the company's future success.

## Purpose and Research Questions

The purpose of this study is to examine how some industrial companies, reason behind the assumptions made in their impairment testing of goodwill, as well as to analyze some of the possible consequences of these assumptions.

The purpose has then further been specified into two research questions:

- How do some companies argue for the assumptions they have made as a part of their impairment-testing?
- Is the impairment-testing of goodwill in these companies institutionalized?

## Limitations

This study aims to examine the assumptions made in impairment testing of goodwill. The study's focus is on the impairment of goodwill and will not analyze the reasons for why goodwill is capitalized. The study's focus will therefore be on IAS 36 Impairment of Assets, rather than IFRS 3 Business Combinations.

## Methodology

This section will describe the method that forms the basis for the study. It will continue by describing how the respondents were selected for the study. Thereafter follows a brief overview of the respondents themselves as well as how the interviews were conducted. Lastly this chapter will discuss the reliability and credibility of the study.

### Qualitative Study with an Abductive Approach

The method used to collect empirical data was through the use of interviews. The interviews were conducted in a semi-structured manner. A semi-structured interview grounds itself in a few core questions, with follow-up questions mostly aimed at getting further elaboration and knowledge from the respondent (Lundahl, Skärvad 1999). This interview method was used to make it possible to compare the answers between each respondent, while at the same time being able to catch potential differences in assumptions as well as the thought-processes behind them.

The study was conducted using an abductive approach. An abductive study has its base in the gathered empirical data, while at the same time not rejecting potential theoretical prepositions. In an abductive study the analysis of the empirical data is combined with data and inspiration that the researchers have gathered from previous studies. This method also means that data from this study and data from previous studies can be interpreted and reinterpreted in light of each other (Alvesson, Sköldbberg, 2008). The consequences of this approach in this study are that the researchers do not have a general theory (hypothesis) that the study aims to accept or reject. The researcher do, however, have certain prepositions based on information gathered from previous literature on the subject area. These prepositions will also be woven in with the analysis of the empirical data.

### Choice of Respondents

The companies used in this study are Elanders AB, FinnvedenBulten AB, Sigma AB and Anonymous Ltd.<sup>1</sup>. The companies, at which the interviews were conducted, were chosen based on a set of three criteria.

- First the companies should follow the IFRS standards in their consolidated financial reports.
- Secondly the companies should be listed at the OMXS. This criterion was established to ease the comparison between the companies, this due to the fact that all companies on the OMXS have to follow a specific rule work established by the marketplace.
- The third criterion was that the companies should have a connection to the industrial sector. This was done in order to find a common ground between the different firms, so that comparisons between them would be more viable. Examining the industrial sector is also interesting, as it has a central role in the Swedish economy as a whole.

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<sup>1</sup> The respondent asked that he and the company remained anonymous in the study.

## Conduction of the Interviews

The respondents were first contacted via telephone and meetings were scheduled either at this point or later via e-mail. Before the interview the respondents received an e-mail with a general questionnaire in preparation for the interviews. See appendix 1, for the general questionnaire used during the interviews. Three of the four interviews were then later conducted at the companies' headquarters, while the fourth interview was conducted via telephone. The interviewed respondents were either group reporting managers or chief financial officer at the companies, see table 1 for detailed information.

Elanders AB	FinnvedenBulten AB	Sigma AB	Anonymous Ltd.
<b>Andréas Wikner</b> Executive Vice President & CFO	<b>Anders Jonson</b> Group Chief Accountant	<b>Lars Sundqvist</b> Chief Financial Officer (CFO)	<b>Anonymous</b> Group Reporting Manager
<b>Fredrik Einarsson</b> Group Reporting Manager			

*Table 1 Interviewed respondents*

## Reliability and Credibility

To assess the “quality” of a qualitative (case) study, two parameters become relevant, reliability and credibility. Reliability<sup>2</sup> states that the research should use reliable methods and procedures. The reliability will then come to be affected by factors such as how good the documentation of the data (interviews) have been or how well specified the research questions are. The idea is that another person, in principle, should be able to examine what has been done. The credibility<sup>3</sup> in turn indicates how credible the evidence and conclusions from the study are. Such credibility involves different elements, which in broad terms fall into two categories, the validity of the evidence and the validity of the researchers interpretations. The validity of the evidence can be improved by comparing the gathered evidence with other evidence or by gathering more evidence about (or from) the same source. The validity of the interpretations is increased if the researchers share their interpretations with the respondents or with other researchers, in order to either confirm the interpretations as “correct” or to gain alternative interpretations. The researchers can also apply alternative theories or methods to the same case, to open up new avenues of interpretations (Ryan, Scapens, Theobald, 2002).

<sup>2</sup> To be more precise procedural reliability.

<sup>3</sup> This is also known as contextual validity.

The reliability of this study is increased due to the fact that all the empirical data is thoroughly documented. Three of the four interviews were recorded, while the fourth one has extensive written documentation. The credibility of the study could have been improved by returning to the respondents with the researchers' interpretations from the interviews. The authors have also discussed the data with other individuals, primarily the supervisors of the study, which in turn have increased the study's credibility.

## Frame of Reference

This chapter begins by discussing economic and accounting goodwill. The chapter thereafter continues by giving a brief overview of some of the central concepts of the accounting theory relevant to the accounting question being studied. This is followed by a summary of the central concepts of IAS 36. After the description of IAS 36, follows a brief summary of prior research in the field. Thereafter follows a description about the WACC, which becomes relevant in the empirical analysis. Lastly the chapter gives an overview of the central concepts of the institutional theory, which will be a framework for the later analysis.

## What is Goodwill?

Generally, goodwill can be defined as "[...] the future economic benefits arising from assets that are not capable of being individually identified and separately recognized" (Greuning, 2005:50). In addition to this definition it is possible to classify two different types of goodwill. These two being accounting goodwill and economic goodwill. Economic goodwill is the effect of an entity's economic performance and a subjective intangible advantage a company have over its competitors (Baskerville, 2012). The accounting goodwill on the other hand is derived from current accounting principles (Greuning, 2005). Accounting goodwill should only be reported when a business entity acquires another company. The reason for this is because goodwill represents the difference between the price paid and all the identifiable assets of the acquired business (Lander, Reinsten 2003). IAS 38 further states that goodwill that is generated as part of an acquisition shall be recorded as an asset in the company's consolidated financial report. Internally generated goodwill and similar intangible assets however, shall not be recorded as an asset but instead as a cost to the firm (IAS 38).

## Accounting theory

IASB's conceptual framework contains a number of basic qualitative properties, whose main purpose is to make the financial reports useful to the users. The four most important of these properties are understandability, relevance, reliability and comparability. The understandability criterion simply means that the financial reports should be easy to understand by the users of the report, given that the user has a basic understanding of the subject at hand. The relevance criterion means that the information in a company's financial reports should be relevant (in time) and contribute in a meaningful way to the decision of the user. A company's financial reports uphold the reliability criterion when the information presented is free from bias and does not contain any major faults. The comparability criterion means that the users of the financial reports must be able to form their own opinion about the information presented. In order to allow for this, similar transactions must be presented in a similar manner from year to year, not just within one company but between different companies as well.

The conceptual framework also presents three criteria that when fulfilled means that a resource in the company should be classified as an asset in the company's financial reports. These criteria are:

- Probable future economic advantages - The resources should be expected to generate a positive cash flow for the company when it is sold or consumed within the company.
- The firm should be in control of the resource - This criterion does not necessarily mean that the firm needs to own the resources, just be in control of it.
- Result of an occurred event - An occurred event, in this sense, can be described as the exchange of one resource for another resource.

A resource is only classified as an asset when all three criteria are fulfilled. If one or more criteria are not fulfilled the resource is instead seen as a part of the company's income statement (Smith, 2006).

An accounting principle that has been important in Sweden is the so called precautionary principle. The strong position of this principle in Swedish accounting can be traced back to the fact that Swedish accounting in much originated out of the German accounting principles. Today, however, the precautionary principle has been forced to yield more and more to another accounting principle, the matching principle. Trying to achieve correct matching in the accounting often leads to conflict between the two principles (Artsberg, 2005).

### **IAS 36 Impairment of Assets**

IAS 36 covers when impairment tests should be used as well as how such tests are to be conducted. In accordance with the standard, goodwill should be tested for impairment on at least a yearly basis. Goodwill should also be tested whenever there is an indication of potential impairment at which time the company has to consider internal and external information. Internal information could be reports regarding changes in the return on an asset or if there has been any significant change in the business, for example disposal or reorganization of assets. Examples of external information could be significant changes that will have negative effects to the business market, economic or legal environment. To test for impairment the company has to calculate the recoverable value of the goodwill asset, and if this value is less than the carrying value of the goodwill, perform a write-off. The recoverable value is the highest of either an asset's fair value or its value-in-use. Figure 1 gives an overview of goodwill impairment test process.

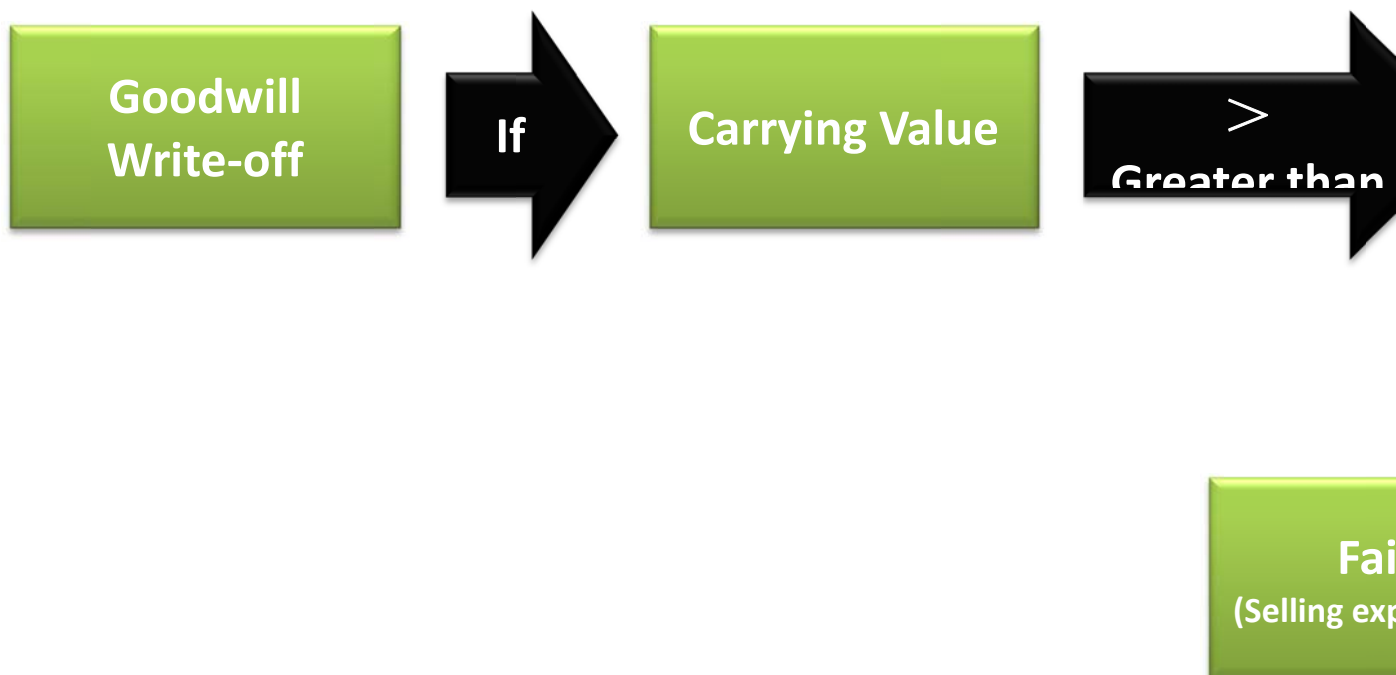


Fig. 1 Impairment testing

The fair value (excluding sales expenses) is an asset's value based on a selling contract, a calculated sales price or the market valuation in case it has an active market. When the value-in-use method is used companies should first estimate the future cash flows that an asset, on which goodwill is distributed, will generate. These expected future cash flows should then be discounted by a discount rate that takes into consideration factors such as the risk free interest rate and uncertainty in the asset (IAS 36). Example of such a discount rate is a company's cost of capital, such as its WACC. Both the future cash flows and the discount rate should represent the management's best assumptions regarding the asset's economic condition (IAS 36). Below follows a general formula for calculating the value-in-use:

$$\text{Value in use} = \underbrace{\sum_{i=1}^5 \frac{CF_i}{(1+cc)^i}}_{\text{Cash flow, max. 5 year}} + \underbrace{\sum_{j=6}^{\infty} \frac{CF_5 * (1+g)^j}{(1+cc)^j}}_{\text{Future growth}}$$

$CF = \text{Cash Flow}$        $g = \text{Growth rate}$   
 $cc = \text{Cost of Capital}$



*Formula 1 Value-in-use, author's own formula based on IAS 36*

IAS 36 states that the expected future cash flow can, for a maximum of five years, be based on budgets and forecast. For periods thereafter cash flows may be calculated using a growth rate set by the company's management. This growth rate may not exceed the company's long term growth rate. The growth rate may also not accelerate over time; it must be either stable or declining. Goodwill should also, according to the standard, be distributed to the smallest identifiable CGU.

The smallest CGU is defined as the smallest group of assets that independently generate payments for the company. Impairment should be distributed to the same CGU as the goodwill which has been impaired. If a firm performs a goodwill write-off it should give specific information regarding the impairment. Such information include for example the reasons and circumstances behind a goodwill impairment, the important assumptions made to calculate the recoverable value and if the recoverable value is based on fair value or value-in-use (IAS 36).

### **Prior Research about Goodwill Accounting**

A working paper by Li and Sloan (2010) examines the impact of the new FAS 142 in the US GAAP. With the implementation of the new FAS 142 US firms should now conduct impairment-test instead of making an annual amortization of goodwill. What they found in their study is that the impairment of goodwill generally lags deteriorations in companies operating performance. They conclude that goodwill-impairment should be seen as a delayed response to deterioration in the goodwill, rather than a timely response to changes in estimated future cash flows. They likewise found that company management exploit the discretion in the standard in order to temporarily overstate the value of goodwill as well as stock prices and earnings (Li, Sloan 2010). Another study by Jarva (2009) found similar evidence as Li and Sloan (2010) that the write-offs on goodwill lag behind the economic impairment of the goodwill. Jarva (2009) did however draw different conclusions to what Li and Sloan (2010) did. In his study Jarva (2009) found evidence that supports the view that managers do not engage in opportunistic behaviour, but that they instead use their discretion to provide informative content. The author did, however, point out that his study found cases when managers might not act in the company's best interest but rather have agency-based motives (Jarva, 2009).

As have been mentioned previously, there is limited information, regarding companies reasoning concerning impairment assumptions to be found in the financial reports. In a study from 2006 of close to 1300 acquisitions Hayn and Hughes (2006) concluded that their financial disclosures regarding goodwill and acquisitions did not contain enough adequate data. This they argue hinder investors, auditors and similar users from gauging the necessary level of impairment. This will also hinder them from effectively evaluate the company's management team. The study also found that there often is a period of lag between the economic deterioration and the actual goodwill write-off (Hayn, Hughes 2006).

A study from Denmark examined how Danish companies define a CGU and how the recoverable amount is measured in those companies. From a survey made with 80 different firms they found that there seems to be no established common practice on how to apply the rules of IAS 36. They also found that a number of the surveyed firms did not comply fully with IAS 36; this was mostly caused by not distributing the goodwill to the smallest CGU. The study also showed that only a few (five) firms used fair value as the base for their recoverable value. One possible explanation presented for this is the difficulty of determining the fair value of a CGU; as such an operation more or less requires the CGU to be an independent division or firm (Petersen, Plenborg 2010).

### Weighted Average Cost of Capital

The weighted average cost of capital (WACC) is a financial measure used to calculate a company's cost of capital. A company's cost of capital is generally in finance defined as "the best available expected return offered in the market on an investment of comparable risk and term to the cash flow being discounted". The cost of capital gives the company and investors a benchmark against which the company's different cash flows should be evaluated. A company's WACC represents the company wide cost of capital for investments and projects of similar risk to the company's overall risk. A general formula for calculating a firm's WACC can be written as the following<sup>4</sup>:

$$WACC = \frac{Equity}{Total\ assets} * RoE + \frac{Debts}{Total\ assets} * RD$$

*RoE = Return on equity*

*RD = Average interest of the firm's debts*

*Formula 2 General WACC calculation, based on Berk and DeMarzo (2011)*

The WACC thus, takes into consideration both the return that the company's shareholder expects from the company as well as the return (in the form of interest) that the company's lenders demand (Berk, DeMarzo, 2011).

### Institutional Theory and Isomorphism

The theory about institutionalization can be used to explain and understand the development in the field of accounting, this is the case for instance with Carpenter and Feroz (2001). They examined how institutional pressure influenced state government in four US states to adopt the US GAAP. In their study the authors found that the state governments came under institutional pressure from three different groups, the federal government, accounting associations as well as

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<sup>4</sup> This version of the formula does not include the effects of corporate tax

credit market representatives. This, according to the authors, means that the local governments were subjected to primarily two types of isomorphic forces, normative and coercive (Carpenter, Feroz, 2001).

The first institutional theories were developed during the late 1800's. These theories questioned the rationality and actions of the company. Parts of these theories were later developed, most notably by Meyer and Rowan, into the new institutional theory. These theories started to question if organizations act rationally to achieve its goal (Lorentzon, 2011). Meyer and Rowan (1977) discussed the prevalence of institutional myths and its implications on an organization. The authors present two reasons as explanation to why modern organizations are filled with "rationalized bureaucracies". The first reason is the increasingly complex relational networks that arise as societies modernize. The second reason is that modern organizations are filled with institutional rules, which form into myths that depict various formal organizational structures as the rational means to achieve a desired end. This, as the authors argue, suggests that a society dominated by rational organization is a result of the complex modern networks and ideology. Rationality becomes an institutional myth. By acting rational organizations seeks to gain legitimacy (Meyer, Rowan, 1977). This leads to an effect known as institutional isomorphism, something that Meyer and Rowan argue "[...] promotes the success and survival of organizations" (Meyer, Rowan, 1977:349). Isomorphism also leads to companies changing their formal structures to lower their vulnerability towards claims such as being negligent and irrational. Claims, or fears of such claims, may cause organizations to incur extra costs (Meyer, Rowan, 1977).

### Isomorphism

Organizations and businesses within the same business area does not operate independently, instead they influence and affect each other. An organization could encounter different type of pressure for example from coercive authority or uncertainty. This pressure could come from government regulations and standards, ambiguous goals or if the environment creates symbolic uncertainty. In case of uncertainty the organizations tend to imitate others and sometimes model themselves towards organizations that are more legitimate or successful. DiMaggio and Powell (1983) identified three different mechanisms through which institutional isomorphic change occur. These are coercive isomorphism, mimetic isomorphism and normative isomorphism. Coercive isomorphism is a result of formal and/or informal pressure on a company from other legitimate organizations in society. Such pressure can, for instance, stem from new rules and regulation from the state or from a country's legal structure as a whole. General accounting techniques, such as annual reports and fiscal years, is an example of the latter. Mimetic isomorphism, on the other hand, results from organizations responding to uncertainty or ambiguity. Mimicking other organizations can then resolve this uncertainty with little expense for a company. This mimicking (or modelling) may happen indirectly through for instance employee transfer, or explicitly via organizations such as consulting agencies or different industry trade associations. Normative isomorphism is primarily a result of what is known as

professionalization. Professionalization can in turn be defined as the “[...] collective struggle of members of an occupation to define the conditions and methods of their work” (DiMaggio, Powell, 1983:152).

Two aspects of professionalization that have major impact on organizations' isomorphism, is the formal education of the professionals as well as the professional associations in which they operate. Professionals will then come to think in the same way and see the same procedures and structures as legitimate (DiMaggio, Powell, 1983).

## Empirical data

The presentation of the empirical data is split into two parts. The first part, company overview, will give a brief overview of the companies at which the interviews were conducted. It will begin by describing the goodwill situation in each of the companies, as well as give a brief comparison of the different companies' financial situation. This is followed by a brief description of the companies' businesses, and concludes by outlining the assumptions the companies have made as part of their impairment-testing. The second part, interview data, will be a presentation of the respondents' answers given during the interviews. The section is divided along the general questionnaire<sup>5</sup> used as basis for the interviews.

## Company Overview

Below follows an indexed summary, see table 2, describing the companies' total change in goodwill value in relation to the base year. The base year has been set to 2007 and given an index of 100. The table also shows the percentage of goodwill write-off per year on a company basis. The write-offs are presented as a percentage of last year's total goodwill book value.

<b>Goodwill trend 2007 - 2011</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
<b>Elanders AB</b>					
Goodwill [Index: 2007 = 100]	100	109	106	99	99
Goodwill Impairment [% of goodwill from previous year]	0	0	-0,1	0	0
<b>Sigma AB</b>					
Goodwill [Index: 2007 = 100]	100	101	100	143	143
Goodwill Impairment [% of goodwill from previous year]	-18	0	0	0	0
<b>FinnvedenBulten AB</b>					
Goodwill [Index: 2007 = 100]	100	77	77	77	77
Goodwill Impairment [% of goodwill from previous year]	0	-23	0	0	0
<b>Anonymous Ltd.</b>					
Goodwill [Index: 2007 = 100]	100	112	99	86	100
Goodwill Impairment [% of goodwill from previous year]	0	0	-9	0	0

Source: Financial reports 2007 - 2011

Table 2 Goodwill overview in percent from the last five years

Three of the four companies have made significant business acquisitions during these five years. Elanders AB have for instance made business acquisitions in four of the five years, such as in 2011 when they acquired the Swedish printing company Fälth & Hässler to expand their product range (Elanders AB Financial reports, 2011). Sigma AB made a large business acquisition 2010 in which they acquired Cypoint Group AB in order to expand its range of services (Sigma AB Financial reports, 2010). FinnvedenBulten AB is the only company that have not made any business acquisitions. Instead the company wrote off all goodwill assigned to one of its division (FinnvedenBulten AB Financial reports, 2008). Anonymous Ltd. have also done some business acquisitions during this period as well as a write-off in 2009 due to the declining market.

<sup>5</sup> See Appendix 1

Some changes in the companies' goodwill value also stem from sales of business segments and differences in exchange rates between the fiscal years. All companies have performed at least one goodwill write-off during the last five years. The size of the different companies' write-offs, however, has varied substantially. As an example of this consider FinnvedenBulten AB that performed a write-off of 23 % of the goodwill value while Elanders AB' write-off was less than 1 % of the goodwill value.

Below follows a brief summary of the companies during the last fiscal year (2011). This overview is meant to put the different companies in relation to each others. Observe that the information on Anonymous Ltd. is intentionally more roughly rounded, in order to respect the respondents wish, that the company remains anonymous.

Company Overview 2011 [MSEK]	Elanders AB	FinnvedenBulten AB	Sigma AB	Anonymous Ltd.
Turnover	1 800	3 100	1 400	Approx. 5 000
EBIT (Earnings before Interest and Taxes)	100	200	100	Approx. 300
Goodwill	800	200	400	Approx. 1000
Total Assets	2 000	1 900	900	Approx. 4000
Goodwill / Total Assets	40%	10%	45%	Approx. 25 %

Source: Financial reports 2011

Table 3 Company financial overview

During the last fiscal year (2011) Anonymous Ltd. had the largest turnover and EBIT compared to the other studied companies. Of special interest is also the goodwill to total assets ratio, which shows that the goodwill asset is a large post in all the companies' financial reports. This is especially true for Elanders AB and Sigma AB.

### Elanders AB

Elanders AB is a printing company that currently operates in ten countries around the world. The company's product portfolio includes printing of books, manuals and marketing material etc, production of packaging and photo related products (Elanders AB, 2012). This year (2012) they merged their product range into three different areas, Commercial Print, Packaging and W2B (Web-to-business). Commercial Print represents the company's largest product area in where Elanders AB actively tries to increase its market share through business acquisitions. The packaging product area offers a wide range of packing solutions, from the simple to the exclusive. Web-to-business is relatively new product area with increasing growth in which the company see a bright future (Elanders AB Financial reports, 2011).

### **Sigma AB**

Sigma AB is a company specializing in IT & Management and information logistics services. The services provided by the company include systems development, integrated business system and systems for information handling. These services are divided in two different business units, information logistics and IT & Management. Information logistics is the firm's unit for information handling services while IT & Management includes services such as system development, business systems and management (Sigma AB Financial reports, 2011). The company currently operates in nine different countries around the world (Sigma AB, 2012; Sigma AB Financial reports, 2011).

### **FinnvedenBulten AB**

FinnvedenBulten AB is a company that develops and produces technical solutions and systems in metallic materials. The company's primary customers are international vehicle manufacturing companies (FinnvedenBulten AB Financial reports, 2011). The business is conducted in two independent divisions, Finnveden Metal Structures and Bulten. Finnveden Metal Structures is a developer and producer of metallic components such as chassis and interiors for the vehicle industry. Bulten develops and produces elements for fastening different materials to each other, such as bolts and pins (FinnvedenBulten AB Financial reports, 2011). The company recently underwent an IPO (initial public offering), and became listed on the OMXS during the early parts of 2011.

### **Anonymous Ltd.**

Due to the respondent's wish that he and the company remains anonymous in this study, this part of the company overview will be severely shortened. Anonymous Ltd. is a Swedish company currently listed on the OMXS. The company produces and develops products in different business segments as well as under different brands. Anonymous Ltd. is represented globally with production and sales on every major continent. One can also note that Anonymous Ltd. have made write offs on its goodwill during previous fiscal years, this however was due to the company selling off part of its business.



## Assumptions presented in the financial reports

In the establishing of goodwill impairment testing companies have to make different assumptions in the calculation of their recoverable value. The following table, see table 4, shows a summary of all companies' cost of capital and future growth rate used in the calculation of their value-in-use.

	Elanders AB	Sigma AB	FinnvedenBulten AB	Anonymous Ltd.
Cost of capital [%]	9,1	14,1	8,7	10,5
Growth rate [%]	2	4 / 2	2	0

Source: Financial reports 2011

Table 4 Overview of Value-in-use assumptions<sup>6</sup>

### Elanders AB

The recoverable value of Elanders AB goodwill is calculated using its value-in-use. The value-in-use is based on infinite cash flows discounted with the company's WACC (9, 1 %). The cash flows for the next three years are based on the prognosis and strategic plans of the company. The cash flows for year four and forward are approximated using a growth rate equal to the inflation expected by the company, 2 %. Elanders AB define its CGUs in accordance with the company's different business segments. These business segments, in turn, are geographically divided. It should also be noted that these assumptions have not changed to a great degree over the last four years. The expected inflation has remained the same, while the WACC have varied between 9, 1 % and 9, 6 % (Financial reports, 2011).

### Sigma AB

In its impairment-testing Sigma AB uses the value-in-use of the goodwill to calculate its recoverable value. The value-in-use is in turn based of expected future cash flows discounted by an interest rate of 14, 1 %. The future cash flows are based on the prognosis for the next three years followed by growth rate of 4 % each year during the next seven years. The cash flows thereafter are expected to grow at 2 % each year. Sigma AB defines each of its business units, IT & management and information logistics, as a CGU. These assumptions have changed between the latest two years (Sigma AB Financial reports, 2011). The biggest change is that the company previously used a constant growth rate over a period of 20 years, rather than the split growth rate that is used today. One can also note a steady increase in the company's cost of capital, from 7, 3 % 2008 to 14.1 % 2011 (Sigma AB Financial reports).

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<sup>6</sup> Observe that Sigma AB uses a growth rate of 4 % the first seven years, and a growth rate of 2 % thereafter

### **FinnvedenBulten AB**

The recoverable value of FinnvedenBulten ABs goodwill is calculated using its value-in-use. The value-in-use is based on infinite cash flows discounted by a cost of capital rate of 8,7 %. The cash flows for the next three years are based on the company's financial plans for those years. The cash flows for the subsequent years is approximated by using a growth rate equal to an expected inflation of 2 % (Finnveden Financial reports, 2011). These assumptions have been rather stable during the last four years. It should also be noted that these assumptions have not changed to a great degree over the last four years<sup>7</sup>. It is also worth noting that the company have not performed any write-offs on the goodwill asset during the same time period (Finnveden Financial reports).

### **Anonymous Ltd.**

The company uses the value-in-use of the goodwill asset to calculate its recoverable value. This value-in-use is based on the expected future cash flows of the asset discounted by a cost of capital. The future cash flows are estimated using the company's budgets and financial plans for its different business segments. These business segments also represent the company's CGUs<sup>8</sup>. The cash flows after the three, above mentioned, years are then estimated to grow at a rate of zero (0) %. The second component of the value-in-use, the cost of capital, is equal to company's WACC (10,5 %). In the calculation of this WACC the rate of return on equity is based on a risk-free interest rate plus a risk premium. A review of the company's financial reports from 2008 and forward show a trend in which the company's WACC have continuously increased. The expected growth rate, however, have remained at the same level over the four year period.

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<sup>7</sup> The expected inflation has remained the same, while the cost of capital has varied between 7.8 % and 8.7 %.

<sup>8</sup> As presented in the financial reports

## Interview Data

This section will summarize the empirical data gathered from the interviews with the respondents. This section is divided in accordance with the general questions asked during the interviews and not on a company-to-company basis.

### Strategic reasons for acquisitions

According to the respondents at Elanders AB there are two primary reasons for why the firm have acquired other companies. The first reason is a part of a consolidation process, which started during the late 1990's. The second reason is to help Elanders AB establish itself on new international markets. The respondent at Sigma AB listed similar reasons for why the company have acquired other companies. He said that the focus during the 1990's was to expand the company and its business opportunities. Nowadays Sigma AB has instead chosen to use a set of criteria that should be met with each acquisition. This means that companies that are being acquired by Sigma AB should bring more than just increase in sales to the company. An acquired firm should also fit in with the structure and value of Sigma AB. The respondent also described two types of firms that are generally acquired, the first being larger firms with complete infrastructure that are to fill a gap in the company's service supply. The second type is smaller consulting firms, which are acquired because of the competence of its consultants. Acquisitions may also stem from Sigma AB's customers wanting to do business with the smaller consulting firm, but feels that the small size is a risk. This may lead to Sigma AB acquiring said company and the contract with the customer.

The only goodwill in FinnvedenBulten AB's balance sheet stems from its acquisition of Bulten in 2001. This, explained the respondent, was part of a long process in which the owner of Finnveden made a strategic decision to focus the company's production towards the vehicle industry. This resulted in the company selling off all subsidiaries that did not produce for the vehicle industry. FinnvedenBulten AB has not acquired any other companies since Bulten, something which the respondent explained primarily due to the way the company does business with its customers. The company's customers know exactly what they want and how much they want. This means that FinnvedenBulten AB's production is based on customer orders, we cannot simply introduce a new product explained the respondent.

The respondent at Anonymous Ltd. also presented a sort of "acquisitions carousel" during the late 1990's as to why the firm began to capitalize goodwill. After this the company came under new management, which decided to focus the company towards a more specific business area. After this "refocusing" process the company began acquiring new firms to take advantage of profit multiples. The respondent described it as the company acquiring independent companies and integrating them into the main company. This caused these new companies to immediately become more appealing to the market. These companies therefore came to be valued higher simply by being part of a well-established public company.

The strategic reasons today, according to the respondent at Anonymous Ltd., for why the company keeps acquiring is twofold; to grow and make profit. The exchange market has (possible) growth as part of their valuation of a company; higher possibility for growth generates higher valuation. The respondent also said that at the most basic level the company also expects return from its acquisitions, which in turn might be positive for the company's stock.

### **Defining Cash Generating Units**

The examined companies have rather different approaches to how they have gone about defining their CGUs. Elanders AB have defined its CGUs geographically. This, according to the respondents, is done because the company does not split its business into different divisions or business segments. The respondents also pointed to the fact that Elanders AB business is segmented locally, with locally based production and sales, as another logical reason for dividing its CGUs geographically. Sigma AB has instead chosen to define its CGUs based on the fact that its services have different ways to do business. The respondent said that the two segments (Information logistics and IT & Management) interact with different individuals and departments at companies. Information logistics primarily interact with the R&D (Research and Development) function at a company, while IT & Management interacts more with the administrative and marketing functions at the customer. The respondent also mentioned that information logistics typically handles longer contracts than IT & Management, and that the former therefore is not as sensitive to fluctuations in the business cycle.

FinnvedenBulten AB has defined its CGUs in a process and logistics focused way of thinking. The company's products are made in processes, which means that the removal of one machine from the process would cause the production to cease, explained the respondent. Therefore, he continued, it is not feasible to define each machine as a CGU, and this leads to each legal company within FinnvedenBulten AB being a CGU. He also explained that seeing both of the company's divisions as CGUs would be a too rough distribution. Anonymous Ltd. also defines its CGUs along business segments, the respondent did however point out that the company measures CGUs at more than one level. He said that the company internally also divide its CGUs according on i.e. region, market or function (sales, production etc.) basis. For communicating externally the company had to choose one primary division to use, in this case business segments. According to the respondent this choice is made out of a feasibility perspective. He also elaborated that defining the primary CGUs on a regional level is something that the company have considered, but that they settled for business segments instead. The respondent also said that the CGUs presented in Anonymous Ltd.'s financial reports do not necessarily represent the smallest CGUs. This he said was done to facilitate the reporting of the goodwill in the financial reports.

### **Value-in-Use over Fair Value**

All four of the interviewed companies calculated the recoverable value of the goodwill asset by using its value-in-use. The respondents at Elanders AB attribute this choice to the difficulty in using another method to calculate a fair value; neither respondent could see a practical and reliable method that could be used in a fair value valuation. They did point out that such a valuation would be possible, but that it probably would involve even more assumptions and management discretion. The respondent at Sigma AB also described the same difficulties, as mentioned above. He said that a fair value based on external valuations would be a hypothetical estimate. It is only when you first sit down to negotiate that you really can get a fair value, as he also put it. The respondent at FinnvedenBulten AB also described similar difficulties in using a fair value method as the other mentioned. He points to the fact that FinnvedenBulten AB uses its machines and equipments for their operations and does not have them for sales. The company would therefore not have enough information to conduct a fair-valuation. He also said that the company uses its assets in a manufacturing process which makes it hard to separate it from their business.

Anonymous Ltd. have chosen to use the value-in-use since this value in most cases is higher than the fair value. The respondent means that valuation with fair value does not bring anything of substance to Anonymous Ltd. The fact that the company already works with future values (forecasts, budgets etc.) also makes it easy for the company to use the values it already have to calculate the value-in-use and compare it to the book value. The respondent at Anonymous Ltd. also speculated that if the value-in-use is lower than the book value it might lead to companies wondering what the fair valuation of the goodwill is. He said that a more likely scenario is that companies instead begin to discuss the assumptions and calculations they have used in their value-in-use calculations. Are the assumptions reasonable? Are the plans correct? "I do not think a negative value automatically leads to a write-off", said the respondent.

### **Financial Plans and Budgets**

The first three years of cash flow calculations is in Elanders AB estimated from budgets and forecasts. Elanders AB's subsidiaries presents budgets and outlooks for the upcoming years, which also are discussed continuously with the board. This since it is ultimately the board that makes a decision on which budgets and plans to use for cash flow purposes. Sigma AB also estimates the cash flows for the next three years using first a budget and for the following two years of individual prognosis at segment level. The budget is built from the bottom while the forecasts are made by the company's overall management, explained the respondent. These forecasts take into consideration factors such as where in its business cycle the company currently find itself, but also external factors such as the current macroeconomic status, explained the respondent.

FinnvedenBulten AB has based their first three years' cash flows on strategic plans, which according to the respondent included both budgets and financial plans. The respondent also said that information regarding its customers' future expected production forms an important role in these future plans. This means that the company for e.g. knows approximately the amount of cars that are going to be produced in the future and how many bolts is going to be needed for each of these cars. The respondents did point out that their strategic plans therefore are very accurate over the five year period. Anonymous Ltd. bases their first three years of cash flows using the next year's budget and financial plans for the two years thereafter. These plans and budgets are built from the bottom and up, these are then in the last stage settled with the board-of-directors. This is done to uphold the demands made by the "book", which states that these plans should be the management/board's best assessment. The difference between the budget and the financial plans at Anonymous Ltd. is, according to the respondent, that the plans involve less people and are less complete than the budget. Anonymous Ltd. also recently switched from using only a budget for the first year, to today's method of using a budget and financial plans. This was done, once again according to the respondent, after discussion between the company and its auditors were the auditors brought up the proposed change.

### **Growth Rate and Cost of Capital**

Three of the four companies have chosen to use the expected inflation as their long term growth rate; the reasons for this choice do however vary. The respondents at Elanders AB attributed the use of an expected inflation rate as a choice on the firm's part to use a precautionary approach. The expected inflation in turn is calculated based on reliable assumptions made by the management and discussed with the firm's auditors. The respondents also said that even though the company expects a larger growth in sales, they might not see a similar increase in future cash flows. This is mostly because the company is experiencing pressure on its profits. The company's expected inflation should be seen as a long time growth rate over a business cycle. This means that the expected inflation today might be too low and one might therefore argue that it should be increased but that would only increase the value-in-use of the goodwill explained one of the respondents. He continued to say that the company have chosen a relatively cautious approach.

The respondent at Sigma AB on the other hand said that their change from a long term inflation of 4 % down to 2 % was made due to outside pressure to change the firm's model used in the impairment-test. This change have however, not drastically altered the value of the firm's goodwill asset, according to the respondent.<sup>9</sup> The growth rate was also altered to avoid any unfavourable comments from the market; this even though it is possible for Sigma AB to have a higher growth rate<sup>10</sup> than the 2 % explained the respondent. He ended by saying that this new model is more "by the book" whereas the company's old model was somewhat simplified and involved a few shortcuts.

The respondent at FinnvedenBulten AB said that the expected inflation was a "minor adjustment" to the company's overall growth rate. Since the company works in close cooperation with its customers, both when it comes to developing and producing the customers' vehicles, it has a relatively good prognosis for the demand of its products. This also means that the company knows relatively well what costs the company will incur in the future. The company also supplements this internal information from its customers with external information from IHS Global Insight, an organization which closely monitors the vehicle industry. In comparison to the other firms in this study Anonymous Ltd. has chosen not to use the expected inflation as growth rate. Anonymous Ltd. has instead chosen to use a zero-percent growth rate. The respondent at Anonymous Ltd. explained this choice with two words: "tradition and caution". He elaborated by saying, that if you can defend your goodwill with a growth rate of zero-percent, why choose anything else? Another choice, rather than zero-percent growth would instead raise questions if you cannot defend your goodwill without the growth rate, argued the respondent.

All four of the companies in this study use the companies' respective WACC as the cost of capital. There are however, differences in how the company conducts their WACC calculations. Both of the two respondents at Elanders AB found that using the company's WACC as its cost of capital as the most logical choice. This because it covers all the factors that are relevant to discount the future cash flows, argued the respondents. One of the respondents also said that he really had not thought much about the choice of using the WACC over another measure. The respondents also mentioned the usefulness of the WACC that it takes into consideration both the return the company's investors seek as well as the interest demanded by the company's various lenders. The company also makes yearly adjustments to the assumptions that form the foundation of the impairment-tests. One of the respondents at Elanders AB said that when it comes to determining the WACC there is a rather complex model involved. This model uses factors such as the company's beta-value and capital structure, to determine the return demanded by the market.

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<sup>9</sup> Something which can be seen in a comparison between the financial reports for 2010 and 2011

<sup>10</sup> A reason for this that was mentioned by the respondent was the historical growth rate of Sigma AB and the IT & management sector as a whole

Sigma AB on the other hand calculates the RoE in its WACC by using the result (EBIT) that its owners expect and then puts this in relation with the company's total equity. The respondent explained that this is done because the owners only have described what they expect for a result from the company rather than as some form of return. He continued by saying that Sigma AB today already has a rather high rate of return and has taken on itself to deliver that return in the future as well. FinnvedenBulten AB calculates its return demanded by the market by using the RONA that the company's previous owner (Nordic Capital) expects from the company. The reason for this, the respondent explained, is due to the fact that the expected RONA level was agreed upon by the board of directors and Nordic Capital before FinnvedenBulten AB was listed on the OMXS. This expected return has also remained the same during the last five or six years, according to the respondent.

Anonymous Ltd. also uses its WACC to calculate the cost of capital. To determine the RoE in this model Anonymous Ltd. uses benchmarking from one of the larger Swedish auditing firms, which have done a comparison between similar firms and their risk premium on the market. According to the respondent the company have chosen a level of return which seems reasonable while at the same time fulfilling the market's demands. The use of the proxy was new for Anonymous Ltd.'s financial reports concerning 2011. The risk free interest component of the RoE measure at Anonymous Ltd. is equal to the interest rate offered on a ten year long government bond, according to the respondent. Neither of the respondents at Anonymous Ltd., FinnvedenBulten AB or Sigma AB specified any reason for why the companies have chosen the WACC as cost of capital over another cost of capital measure.

### Changes in the Value-in-use Model

The models and assumptions at the different companies are also updated at somewhat different times. The respondents at Elanders said that the company perform yearly evaluation of the method and whether it needs to be updated or not. They did not say anything further about this process. The respondent at Sigma AB stated that the company's new more "by the book" and theoretical model probably would not change, unless there were any changes made to the rule works that would demand such a move. The respondent at FinnvedenBulten AB said that the basic model used for testing for potential impairment would remain the same. He continued to say that this, however, did not exclude minor changes to the model, such as taking into consideration new customers, competitors, changes in interest and so forth. A similar response was given by the respondent at Anonymous Ltd., who also added that changes might be necessary for the company in case of sale of a business segment or a reorganization of the company. Something which have happened before at Anonymous Ltd, added the respondent.



### **Opinions on the Current Impairment-testing model**

When asked if they (personally) saw any problem with the fact that the current system demands so many assessments on the company's part, one of the respondents found it quite problematic. The respondent said that he preferred the old system, with systematic depreciations. He said that the current system makes it difficult to compare different companies with each other, as it is so many different assessments involved. The respondent also found it a little bit strange; to still have goodwill as an asset 20 years after it was acquired, especially as that goodwill might no longer exist. Two other respondents thought that a combination between the two systems might be a "better" solution. They both gave an example of a combination where one part of goodwill is related to a base value on which a company perform depreciation and perform write-offs on the rest.

## **Analysis**

This analysis section aims to discuss the empirical data of the study. This discussion will be conducted in light of the theoretical data presented earlier.

### **Discussion about Defining Cash Generating Units**

The empirical data shows that there is no single one way of defining CGUs used or applicable to all companies in this study. The answers from the respondents point to companies doing as thorough analysis as possible to what might be the company's smallest CGU. It would also appear that some companies have attributed goodwill to CGUs smaller than those presented in the financial reports. This point towards the idea that the CGUs presented in the financial reports are not the smallest possible one, such reasoning would be in line with the findings of Petersen and Plenborg (2010). This would also mean that companies might not fully report in accordance with IAS 36. This might be indicative of another norm which is used in tandem with IAS 36.

Not reporting the smallest CGUs, but rather a group of the smallest CGUs, might also have been formed as a result of companies weighting different accounting properties against each other. IAS 36 declares that the company should include a description of all relevant assumptions and methods made for the calculations of future cash flows. It is the company's task to make sure that the information is understandable, relevant, reliable and comparable. To show all the information regarding the CGUs and how goodwill is distributed to them could be too much information with too little relevance and therefore it is more appropriate to summarize them on a higher level. One could, for instance, argue that an investor's decision to invest is not affected by whether or not goodwill is attributed to machine A or B in a factory. Excluding information could on the other hand prevent investor's from making qualified assessments of the company. This could be especially devastating if a company's management allows the write-off to lag behind and thereby inflating the company's stock prices. Such actions are a possibility, as evidenced by Li and Sloan (2010). The evidence in this study does not, however, show such notions in the four companies.

### **Analysis of the Choice between Value-in-use and Fair Value**

All four companies in this study have chosen to use the same valuation method in their impairment-testing. The companies have chosen to reject a fair value valuation in favour of value-in-use. All respondents argued that fair value is not really a viable method to use, mostly due to the lack of an active market and the likely increased discretion that comes with such a method. This study therefore indicates praxis in the field (of using the value-in-use) which corresponds to the findings of Petersen and Plenborg (2010). The answers from the respondents also indicate that using the value-in-use is a more reliable and practical method to use.

One could from this argue, that by using the value-in-use over the fair value, companies have chosen to value reliability over relevance in the financial reports. Such an argumentation is, however, hampered by the fact that both valuation methods very much depend on the discretion of those performing the valuation. One could also question the reliability of the value-in-use, since the basis of the valuation lies with a company's management's best guesses about the future.

The empirical data also shows that those two companies, Sigma AB and Anonymous Ltd, whose models previously differed slightly now is aligned with the rest. The changes for these two companies represented adjustments to primarily the way they calculated their cash flows and growth rate. These changes seem to have stemmed from external pressure primarily from the companies' auditors. This would in turn be indicative that these companies would have experienced normative isomorphic forces, as discussed by DiMaggio and Powell (1983). The move toward using a similar model by all companies in this study could mean that professional individuals (auditors, economists etc.) have had a big impact in forming the norm as it is today. This isomorphic behaviour points towards companies attempting to gain increased legitimacy by conforming to this norm. Conforming to this norm can be seen as a defensive measure to appear rational and create a secure foothold for dealing with complex questions; this is in line with discussion by Meyer and Rowan (1977).

All of the respondents pointed towards the flaws in IAS 36, with a couple of the respondents emphasising the issues that arise from the discretion demanded by IAS 36. Despite these flaws the respondents did also point to the fact that no impairment method is without its flaws. Something that was also mentioned during the interviews, i.e. with Elanders AB, is that companies have to make predictions in the future. This is a difficult process and companies cannot take every risk and market fluctuation into account. Companies are therefore sometimes forced to generalize. It can in turn then be difficult for companies and their management to determine if a downturn is temporary or whether future prognosis or budgets have to be updated, said one of the respondents at Elanders AB. This would point to there being a lag between the economic deterioration of the goodwill asset and the actual write-off.<sup>11</sup> It could at the same time provide a possible explanation to why such a lagging-effect might exist. These comments by the respondents point towards the difficulty in using the current method of impairment which is more in line with what Jarva (2009) concluded.

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<sup>11</sup> See Li and Sloan (2010); Jarva (2009); Hayn and Hughes (2006)

The respondent at Sigma AB also mentioned that companies might intentionally delay their goodwill write-offs, while at the same time are more likely to perform unnecessarily large write-offs once it becomes necessary. The argument there is that companies do not want to perform write-offs. So when they are forced to make one they take measures to try and avoid having to do another write-off in the future. This might then point to another reason for why there is a lag between the economic deterioration of goodwill and the actual write-off. As well as provide a possible explanation to why such an effect exists. This would also support the notion of manager's acting opportunistically, which is something that Li and Sloan (2010) argued.

### **Discussion about the Weighted Average Cost of Capital**

The answers from the respondents do not give a clear picture of why all the companies have chosen to use the WACC as their cost of capital. The answers point instead to companies using WACC as there is no apparent other useful general measure for cost of capital. None of the respondents elaborated any further why they had chosen to use the WACC over another cost of capital measure, it appeared as a rather self evident choice to most. The apparent lack of another viable cost of capital might also have lead to the WACC being the only rational measure, which companies have decided to use in order to gain increased legitimacy. It is possible that the WACC measure have become a rational myth, which many companies choose to subscribe to in order to avoid unfavourable comments. This is in line with the reasoning by Meyer and Rowan (1977). The question now is how such a myth has come to be. One possible origin lies with the formal education of the professionals involved in the process. A company's management and auditors all have some sort of formal education in business. This can in turn lead to them thinking along the same lines, and perceiving the same measures and models as rational. It becomes a sort of normative isomorphism; everyone perceives the same measures as legitimate and therefore uses the same measures.

From the interviews it would also appear that the companies' auditors have a rather significant influence on which model the company uses in its impairment testing. It would seem that the auditors then might have had an impact in creating the norm, of using the WACC as cost of capital. This might in turn be caused by auditors not only having the same formal education, but also being involved in the same associations, such as the Swedish audit board or one of the big four accounting firms. It is however impossible to find evidence of such a reasoning in this study, since no auditors have been interviewed. It could, however, be an avenue for future research.

The level of the company's WACC also differs significantly between each other. There can be several reasons behind this. Part of the differences can be explained by the inherent properties of the measure, such as companies having different average borrowing rate and capital structure. Companies, in other words, are not homogenous entities. Another big part of the determining WACC, which can help explain the differences, is how companies have decided to calculate the RoE.

A majority (three of four companies) in this study have based its RoE on the level of return that the company's owners have demanded. It therefore seems like the owners and shareholders of a company can have significant indirect impact on the impairment-testing. This indirect impact would then be the result of the shareholders demanding different RoE as they perceive a different risk level in the companies.

By analyzing the four companies' financial reports one can see that the WACC steadily increased over the last few years. One possible reason for this is that a company's management might engage in opportunistic behaviour, by changing the WACC to their advantage. If the management behave opportunistically one should, however, see a decrease of the WACC, not an increase. This is because an increase in the WACC would lower the value-in-use of the goodwill and increase the likelihood that the company have to perform a write off. Increases in the WACC are therefore not really in a company's "best interest", which makes it unlikely that the increase in this study can be explained by such behaviour. A higher cost of capital (WACC) would also, theoretically<sup>12</sup>, make a write-off timelier, when it comes to being matched with the deterioration of goodwill. This would point to companies not manipulating the WACC (to for e.g. delay the write-off or manipulate the stock prices), something which would be inconsistent with the findings of Li and Sloan (2010).

### **Conservative accounting**

The empirical data also indicates that the precautionary principle have a big impact on the impairment testing of goodwill. All respondents, for instance, argued this as part of the reasoning for choosing their particular growth rate. The question still remains, however, whether these precautionary actions are connected to the long Swedish tradition of conservative accounting or to the specific accounting question itself. One can also note that half of the interviewed companies have chosen to use a growth rate under the maximum which is allowed by IAS 36. Another reason for the precautionary actions can be traced to the companies wanting to avoid unnecessary criticism from the market for being too aggressive in their accounting practices. Using higher number might provoke questions and concerns from investors. This is similar to what Lorentzon (2011) discussed about the forestry industry's fair value valuation.

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<sup>12</sup> See formula 1 for a summary of the model

### Discussion about Jarva (2009) and Li & Sloan (2010)

Several studies<sup>13</sup> have found that goodwill write-offs lag behind the economic deterioration of the asset. Based on these previous findings one would expect that such lag is present for the companies in this study as well. This is, however, something which the empirical data in this study does not clearly show signs of. There are items in the data that points to the possibility that a lagging effect should exist for these companies as well. One such indicator is the fact that the companies rarely and irregularly perform write offs. But at the same time when write offs were performed in three of the four companies, it was a rather substantial value. This would indicate that companies wait until almost all of the goodwill value has deteriorated, before conducting the write-off. One of the respondents also commented that companies are likely to write-off more than is necessary whenever a write-off becomes inevitable, this in order to avoid the process in the future. This could then point to write-offs being delayed rather than timely response to impairment.

### Institutionalism Summarized

The empirical data in this study has given the indication that legitimacy is the primary concern when it comes to companies financial reports. It is important for companies to perform their impairment-testing in manner with what the company's stakeholders expect. The use of specific models can be seen not just as companies fulfilling the regulations in IAS 36 but also companies wanting to be perceived as rational and efficient. It does not appear that the companies in this study have been directly influenced by either each other or another successful company. The companies have still moved towards the use of the same model and similar assumptions. The answers given by the respondents indicate that firms' auditors might have played a central role in the development of the companies' models. Some of the respondents described how the company's board and management are in constant discussion with the auditors, refining and changing the company's model and assumptions. Such processes in turn lend the models legitimacy, by either establishing the model as efficient and rational or by aligning the company's models with models that are already considered to be rational and efficient. It becomes plausible to see the fact that all four companies have chosen the same model as companies subscribing to a myth that just this model is rational. This is apparent in the empirical data, where one of the respondents described a move from a previously functional model to a more "technically correct" one, which was demanded by external stakeholders. There might point to a case where several models would provide (almost) the same result, but only one of the models is seen as rational and therefore generate legitimacy for the company.

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<sup>13</sup> See for instance Li and Sloan (2010), Jarva (2009) and Hayn and Hughes (2006)

## Isomorphism Summarized

From this study it would appear that two isomorphic forces, normative and coercive, seem to have influenced the companies' impairment-testing process. The norm is for companies to use a value-in-use method and discount the future cash flows with a WACC rate. The companies' auditors seem to have been big influences in forming this norm. Coercive isomorphism is also present, as the companies have to adhere to the rules and regulations present. The primary coercive force is without a doubt, IAS 36 and changes in this standard are likely to result in the companies' changing their models. Something which the empirical data shows has happened before. Mimetic isomorphism does not seem to have influenced the studied companies to any great degree. None of the answers from the respondents pointed to the companies mimicking either each other or other successful organizations. It is however, possible that mimetic isomorphism has happened indirectly, through for instance employee transfer.

There is another large entity, the stock market, which seems to influence the companies' impairment-testing process to a great degree. The respondents described that changes sometimes were brought on by demands and concerns from the market. The stock market (as an entity of different investors) therefore also seems to have been a big influencer of the companies' models and the changes in them. The stock market can be seen as exercising coercive pressure on its listed companies, this by having its own rules and regulations. The stock market can also exercise normative pressure on the companies. It can be seen as an association of investors who much like auditors, can be seen as professionals trying to define their profession (DiMaggio, Powell 1983). These investors will be somewhat like minded, and thereby more likely to perceive the same models and measures as rational. So if someone steps away from the norm and uses their own models, they risk that the professionals start to question their actions. This is something that the respondents, albeit to a lesser degree, described during the interviews. Taken to the extreme, the loss of a company's "rationality" can in turn jeopardize the company's legitimacy and survival (Meyer, Rowan 1977).

## Conclusions

This chapter aims to summarize the results of the study. This section also aims to provide possible answers to the research questions of this study. It will also present some of the drawn conclusions from analysis of the empirical data. Lastly this section will present some possible avenues for future research.

The four companies in this study are all very different from each other, with vastly different businesses. One thing they do have in common is their choice of goodwill impairment-testing model. How have the different companies reasoned in their choice of this model and the assumptions that go with it? Or perhaps more importantly, why have they all chosen the same model? These are central questions that this study aims to try and shed further light into.

The first question asked in this study concerns how the companies have argued in their impairment-testing. This study shows indication that companies might not distribute the goodwill asset to the smallest CGUs, which might conflict with IAS 36. There are two likely explanations for this. Companies are either conforming to a separate accounting norm that work in tandem with IAS 36 or they are weighing the different qualitative properties against each other. These are, however, only possible theories based on the evidence in this study. Two words, practicality and reliability, can summarize the four companies argumentation of using a value-in-use method. The praxis that this study indicates would seem to have appeared as a result of the difficulty and unreliability in using a fair value method. Precautionary thinking has also played a central role in the companies' argumentation, particularly when it comes to arguing for the company's chosen growth rate. The evidence in this study shows that companies have chosen a cautious approach in order to avoid unnecessary criticism from its stakeholders. Another assumption that companies have to make, that will have great impact is the cost of capital. All companies in this study have used a WACC measure to do this. The evidence is indicative of the WACC being the praxis for this purpose. This study cannot draw any clear conclusions to why this praxis has risen; the choice was not discussed or argued for to any extent by the respondents.

The second question asked in this study is whether the impairment-testing of goodwill is institutionalized or not. The evidence in this study would indicate that, yes, the impairment-testing is institutionalized. It is central for a company that its accounting procedures are legitimate and in order to gain this legitimacy companies have to appear as rational. The companies do not want investors and other stakeholders begin to question if the company is rational or not. In the search for rationality companies are likely to encounter isomorphic pressures from other organizations. The evidence in this study shows that the companies have been subjected to primarily two kinds of isomorphic pressure, coercive and normative. The coercive pressure primarily stems from the accounting rules and regulations of the IASB and national legislative structure. Normative forces have primarily come to stem from the companies' auditors. This study's data shows that the companies' auditors have extensively influenced the companies' choice in using the value-in-use method.



The evidence in this study does not show that the four companies have been mimetically influenced by either each other or by another successful organization. Besides the auditors there is another large entity that has had a large influence in the companies' goodwill testing process. This entity is the stock market. The stock market can be seen as influencing the companies either through normative or coercive isomorphism. The normative forces can be seen to originate out of the professionalization of the stock markets. The investors can be seen as an "association of investors" with similar views on what is rational or not. The coercive forces on the other hand will come to originate from the rules and regulations put up by the stock exchange. It is also reasonable to see the stock market as either a combination of the two forces or a "new" form of isomorphic force that is not discussed by DiMaggio and Powell (1983). It is also possible that this "new" force simply is an evolution of the normative isomorphism.

A possible consequence of the assumptions made during the impairment-testing there can appear a lag between the economic deterioration of the goodwill and a write-off. The evidence in this study indicates that such a lagging effect is present in the four companies studied. The primary evidence to this lagging effect is the irregular and substantial write-offs that have occurred in the four companies. There is also evidence in this study that present possible explanations to the cause of this lagging effect. The primary evidence here is the respondents answers about the difficulty in using the current models, which supports Jarva (2009)'s conclusions. There is at the same time no clear evidence in support of the conclusions drawn by Li and Sloan (2010), that the lag is a result of opportunistic management discretion.

### **Suggestions for future research**

For future research it would be interesting to further investigate the assessments used in impairment testing of goodwill. One could for example study companies in different industries to examine differences and similarities in the impairment processes. As previously mentioned another avenue for future studies could be to study auditors and their influence in company's decision process when it comes to choosing valuation methods and models. A future study could also examine other companies' impairment-testing to see if the same isomorphism forces, as in this study, are present. Especially interesting would be to examine companies where mimetic isomorphisms usually have a great influence to see if that is the case with the impairment-testing as well.

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IFRS - Conceptual Framework

IFRS - IAS 36 Impairment of Assets

IFRS - IAS 38 Intangible Assets

## Appendix 1 – General interview questionnaire

What are the main reasons for the company to acquire other businesses?

- To grow? Establishment on new markets? Increase market shares?

How has the company identified its cash generating units?

Why has the company chosen to use a value-in-use method to calculate the goodwill recoverable value?

- Have the company considered using a fair-value method?

What information is used in the cash flow calculations?

- Is the information based on budgets and strategic plans? How are they prepared?

What is the reasoning behind the choice of using the inflation /X % rate as the growth rate when calculating the value-in-use?

What is the reasoning behind the choice of using the company's WACC/X % rate as the cost of capital when calculating the value-in-use?

- How is the WACC/X % rate calculated?

How often does the company update/change the assumptions used in the impairment-testing?

Do you personally see any problems with the level of discretion in the impairment-testing demanded by IAS 36?