UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

Country-specific differences in disclosure compliance

A quantitative study comparing the compliance degree of paragraph 134 in IAS 36 *Impairment of Assets* in Sweden and the United Kingdom

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Preface

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Abstract

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Title: Country-specific differences in disclosure compliance concerning impairment testing; A quantitative study comparing the compliance degree of paragraph 134 in IAS 36 in Sweden and the United Kingdom

Background and problem discussion: Since 2005 all listed companies in the European Union have been obligated to apply the IFRS regulations. The purpose of the implementation is to increase the transparency and comparability, which in the long run aims to harmonise the accounting behaviour. One area discussed frequently is disclosures, since they can involve a lot of subjective judgments and lack of direct guidance. Studies show that there are severe implementation variations due to different country- and firm-specific factors. ESMA published a report in 2013 that identifies a handful of problem areas tied to disclosure compliance in IAS 36 *Impairment of Assets*.

Purpose: The purpose of this thesis is to investigate whether the degree of compliance of the disclosure requirements in paragraph 134 of IAS 36 is varying when comparing Swedish listed companies with British listed companies from the Industry sector. Further, we aim to investigate whether the result of the compliance degree can be explained by country-specific factors.

Methodology: A quantitative method has been used, where a multiple regression were performed. Our dependent variable is the compliance level of the Industry companies listed on both London Stock Exchange and OMX Stockholm. This information was gathered from the note section in the annual reports from 2012. The independent variables are both firm-specific and country-specific in order to identify any discrepancies.

Analysis/Conclusion: This study finds that there is a significant discrepancy in compliance level between the observed companies in Sweden and the United Kingdom. This discrepancy could be explained by various country-specific factors, such as enforcement differences and variations in the national culture. Further, the findings indicate that there is a variation in the ownership dispersion, which is a significant factor that influences the compliance degree. The multiple regression model of this thesis shows that 19% of the compliance level is explained by the independent variables.

Key words: Compliance, Disclosure, Goodwill, IAS 36, IFRS, Impairment, Multiple Regression, Sweden, the United Kingdom.

Abbreviations

ANC – Autorité des Normes Comptables

EFRAG – European Financial Reporting Advisory Group

ESMA – European Securities and Markets Authority

FRC – Financial Reporting Council

IAS - International Accounting Standard

IASB – International Accounting Standards Board

IBES – Institutional Brokers' Estimate System

IFRS - International Financial Reporting Systems

VIF – Variation inflation factor

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1. Introduction

The first chapter will outline the subject of this thesis, first by presenting a background of the subject, then a problem discussion, the purpose, the research questions, limitations, contribution and relevance, and finally the outline of the thesis.

1.1 Background

Accounting regulations have been developed on a national level for a long period of time. Due to the national differences in the institutional and economical structures between countries the variations of the national accounting systems were severe (Marton *et al.* 2012 p. 348). As a result of these differences and increased globalisation, international regulations were issued by the IASB in order to start a harmonising process. According to Daske *et al.* (2008) the adoption of the IFRS-regulationy is one of the most significant regulatory changes ever made and there are studies implying that the quality of the consolidated statements has improved after the adoption of IFRS (Müller 2014, Jiao *et al.* 2012).

In the beginning of 2005 a mandatory adoption of IFRS was carried out by the European Union. This led to the requirement of all listed companies to start reporting their consolidated statements according to the IFRS. The European Commission issued this change in July 2002, when they released the regulation 1606/2002. The purpose of the regulation was to harmonise the financial information in order to achieve a higher degree of transparency and comparability (EC 1606/2002).

Whether this mandatory adoption of IFRS will lead to a higher degree of transparency and comparability depend on how the implementation is performed and for many companies this has been an extensive task. Even though there are studies implying that the quality of the accounting has improved (Müller 2014, Jiao *et al.* 2012), other studies imply that the degree of compliance after the adoption is inadequate and varying. Verriest *et al.* (2013) for instance conclude that the compliance is heterogeneous between firms and suggests that this heterogeneity is observable regarding the disclosure quality and the implementation of disclosure requirements. The IFRS system is principle-based which means that there are no "bright-line" rules on how to comply and there is almost no industry-specific guidance. This leads to companies being required to rely more on disclosures. The lack of direct guidance has led to variations in the disclosure implementation between countries and firms, which complicate the process of embracing the information disclosed (Thomas 2009).

1.2 Problem discussion

The significance of disclosures is distinct and there is an on-going discussion about the intricacy of disclosures. This intricacy of implementation is the foundation of a Discussion Paper issued by EFRAG in 2012. The Discussion Paper concerns the project of creating a Disclosure Framework (EFRAG 2012), which has the aim of improving the relevance of disclosures in order to ensure that the information disclosed is useful. Disclosure is a very sensitive subject for companies since the main purpose is to turn entity-private information to information available to investors. Due to the nature of disclosures companies might want to withhold information that they find sensitive. Easley and O'Hara (2004) claim that companies with a higher proportion of private information also have a higher cost of capital.

The standard IAS 36 *Impairment of Assets* has been identified as complex when it comes to what information to disclose, due to the amount of required subjective judgments (Hoogendoorn 2006). Therefore, according to Amiraslani *et al.* (2013) an assessment of the accounting practices is crucial in order to evaluate the quality, since a lot of discretion and judgments are made by the management. ESMA published a report in 2013 that identifies a handful of problem areas tied to disclosure compliance in IAS 36. The report concludes that the disclosures related to the impairment testing in general are included, but in many cases they have a "boilerplate"-character and not "entity-specific". They explain this result as an effect of the shortage of "bright-line" rules and a failure to implement the standard. Amiraslani *et al.* (2013) also identify the boilerplate language as something commonly used and that compliance is usually achieved by restating expressions incorporated in IAS 36.

Not only are disclosures a sensitive matter, but there can also be severe implementation differences between companies (Verriest *et al.* 2013, Amiraslani *et al.* 2013, Glaum *et al.* 2012). Several studies show that variations in the implementation can be explained by differences in country or firm-specific factors (Amiraslani *et al.* 2013, Glaum *et al.* 2012). Both these, among others, seek to identify the specific factors that explain the degree of compliance, in order to find explanations to the variations in the implementation across Europe. One of these factors is the country-specific enforcement system. The enforcement is often controlled on a national basis in contrast to on a European level, for instance in Sweden it is Finansinspektionen that controls this. Due to the controlling function of every country being different, the foundation of the enforcement systems varies. One condition affecting this is the legal system. Nobes (2006) states that country-specific national influences might endure under IFRS. In a recently published paper, Nobes explains that a company's pre-IFRS habits clearly influence even after transition to IFRS (Nobes 2013).

As mentioned above Easley and O´Hara (2004) state that there is a connection between a high proportion of private information and a high cost of capital. Additionally, Botosan (1997) also identifies that there is an association between disclosures and the cost of capital. His conclusion is that greater disclosures result in a lower cost of capital. In contrast to the findings of Botosan (1997), there is an on-going discussion suggesting that there is disclosure overload in many companies (EFRAG 2012). This statement involves the fact that too much information is disclosed and that this leads to decreasing relevance. With disclosure overload the users of the financial statements will have a hard time embracing the relevant disclosures, which could lead to adverse selections (Barker *et al.* 2013).

Due to fact that there are a lot of companies with recognised goodwill and that all companies that have recognised goodwill have to perform an impairment test (IAS 36.90), goodwill is a suitable asset to use for investigating the disclosure compliance. Paragraph 134 in IAS 36 is the paragraph that includes all the disclosure requirements for goodwill and other intangible assets.

1.3 Purpose

The purpose of this thesis is to investigate whether the degree of compliance of the disclosure requirements in paragraph 134 of IAS 36 varies when comparing Swedish listed companies with British listed companies from the Industry sector. We have chosen a sample consisting of only

one sector, due to our purpose of further investigating whether the result of the compliance degree can be explained by country-specific factors.

1.4 Research Questions

Based on the discussion above, our research questions are:

- To what extent do Industry companies listed on OMX Stockholm or London Stock Exchange comply with paragraph 134 in IAS 36?
- Can the degree of compliance be explained by any country-specific factors?

1.5 Research Design - Limitations

In order to answer our research questions we need a sample that is sufficiently large to ensure that the results will be reliable. Due to this we have chosen to use a quantitative study with data from companies that are listed on Stockholm OMX and London Stock Exchange. The companies selected from the two stock exchanges are limited into operating in the same sector, i.e. Industry. The selection of sector was based on the need to establish a sample that consists of an amount of companies with goodwill that is compliable. Therefore, the selection of the Industry sector is not unique concerning the country-specific factors but only chosen due to the amount of companies with recognised goodwill. The recognised goodwill annually has to be tested for impairment according to IAS 36 paragraph 134, and thus give us a sample large enough on which to conduct statistical tests. We chose only one sector in order to minimize the distortion that may arise during testing from firm-specific factors in different sectors.

In addition, the aim is to answer whether the degree of compliance with the disclosure requirements can be explained by certain country-specific factors. In order to identify unique factors, we have chosen to compare stock exchanges in two different countries. This enables a possibility to find factors that are country unique and we focus our analysis on these factors, in order to identify the differences between Sweden and the United Kingdom. The country-specific factors that we will analyse have been of importance for earlier studies.

The data collection of this study was performed by gathering and analysing the annual reports from 2012. This collection was made with the intention of analysing the most recent information available since the annual reports of 2013 had not been published at the time of the gathering of the data.

1.6 Contribution and Relevance

Our study is based on previous research about disclosure compliance and our findings will contribute to the findings from these studies. The previous studies examine the degree to which the compliance level can be explained by firm-specific or country-specific factors, for instance in a sample of Swedish companies or with a larger sample of European countries. Our contribution will be to show whether there are country specific factors that can explain the difference in the compliance degree between Sweden and the United Kingdom. Since this is a more specific comparison compared to previous studies, it will validate previous findings and clarify the possible variations even further.

Regarding the relevance of this research study, the findings will have a practical relevance to the implementation of disclosures. Due to the complicatedness of the implementation of disclosures, revised research is of importance in order to improve disclosures as a communication tool.

1.7 Thesis Outline

The thesis consists of six chapters, where every chapter begins with an introductive part that summarises the content of that chapter. This aims to give a clear, simplified overview for the reader.

The second chapter is the frame of reference where the regulations, previous research, and institutional theory are presented.

The third chapter outlines the research design, where the multiple regression model and the variables studies are presented in detail. Further, the sample and collection of the data together with the data processing are described.

In chapter four the empirical findings are presented starting with the correlation analysis and then continuing with the regression model in general as well as the studied variables separately.

In chapter five and six the analysis and the discussion/conclusion summarise the findings of the thesis. These chapters answer our research questions together with a discussion and suggestions for further research.

2. Frame of Reference

In the second chapter theory connected to the thesis is presented. The frame of reference consists, more specifically, of five parts: regulation, corporate disclosures, disclosure compliance in IAS 36, country-specific factors, and institutional isomorphism.

In the regulation part the IFRS regulations that concerns goodwill are presented: IFRS 3 regards the identification of goodwill and IAS 36 describes the implementation of impairment testing. The second part concerns corporate disclosures, where the effects of disclosures are separated into firm-specific and the market-wide effects. The third part embraces previous studies performed in the disclosure compliance field regarding impairments. Disclosure compliance is a research field were many studies have been performed. After investigating the previous studies, we have selected three studies that are of certain importance for our own study. This section consists primarily of a presentation of these studies; all three have examined the compliance degree with a similar research method as the one we use. The findings from these studies are compared with the findings of our study in the analysis. Further, we mention a few other recent studies and reports made concerning disclosures and the on-going discussion. The fourth part describes several country-specific factors. In the last part the harmonizing process of institutional isomorphism is described. In addition the three different mechanisms of organisational change are presented, coercive, mimic and normative. All parts in this chapter are used when analysing the empirical data collected.

2.1 Regulation

2.1.1 IFRS 3 - Business Combinations

The object of IFRS 3 is to increase the reliability, comparability and relevance of the information provided about business combinations. The standard constitutes principles and requirements on how to recognise and measure the assets and liabilities acquired, to establishing of goodwill and to determine the information to disclose (IASPlus 2014).

IFRS 3 provides an acquisition method that has to be applied for all business combinations. The first step is to identify an acquirer, which is implemented using IFRS 10 for guidance. The acquirer is the company that holds the control of the acquiree (IFRS 3.7). When there are several companies included in the business combination, consideration is given to the company that initiated the combination and to the relative sizes of the combining companies (IFRS 3.B17). The standard establishes principles concerning the recognition and measurement of acquired assets, assumed liabilities and non-controlling interest in the acquiree. After recognising these items the acquirer shall identify the difference between:

> […] *the aggregate of (i) the value of the consideration transferred (generally at fair value), (ii) the amount of any non-controlling interest (NCI, see below), and (iii) in a business combination achieved in stages (see below), the acquisition-date fair value of the acquirer's previously-held equity interest in the acquiree, and the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed (measured in accordance with IFRS 3)* (IFRS 3.32).

The difference identified is recognised as goodwill. Regarding the measurement, the principle states that the items in a business combination are measured at acquisition-date fair value (IFRS

3.18). Concerning disclosures, this standard requires that the acquirer leave information so that users are able to evaluate the nature and financial effect of business combinations (IFRS 3.59).

2.1.2 IAS 36 - Impairment

The purpose of IAS 36 is to ensure that the value of assets in a company is never carried at more than the recoverable amount, which is the higher of the fair value less costs of disposal and value in use (IASPlus 2014). Therefore, the value of an asset exceeds the recoverable amount when the carrying amount is higher than the potential value to be recovered through sale or use of that asset. In this case the company, according to the standard, must perform impairment and recognise an impairment loss (IAS 36.59).

In order for companies to determine whether there is a need for impairment they shall evaluate the presence of indicators. The indicators reflect that the carrying amount exceeds the recoverable amount. If this is the case the company has to calculate the recoverable amount of that asset (IAS 36.9). Regardless of the presence of indicators, a company is required to perform an annual impairment test on intangible assets with indefinite useful lives, or not yet available for use, and on goodwill. The test is conducted by comparing the carrying amount with the recoverable amount.

If either the value in use or the fair value less costs of disposal exceeds the carrying amount, the other one does not have to be calculated (IAS 36.19). If determining the fair value, IFRS 13 is used. The calculation of value in use consists of discounted future cash flows deriving from the asset. The cash flows should be based on recent budgets and reasonable assumptions. Further, an extrapolation for periods beyond budget is to be made (IAS 36.33).

When conducting impairment testing the recoverable amount shall be estimated on an individual asset. If this is not possible, the recoverable amount shall be estimated for the cash-generating unit that the asset belongs to. The standard defines a cash-generating unit as:

> […] *the smallest identifiable group of asset that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets.* (IAS 36.6)

According to IAS 36.80, goodwill has to be allocated to all cash-generating units, alternatively to groups of CGU that will take advantage of the synergies of the combination.

Regarding disclosures, impairment losses recognised or reversed have to be disclosed both on class of asset and on segment level. The majority of the disclosure requirements are found in paragraph 134 in IAS 36. First in subparagraph (a) there are requirements of disclosing about the amount of goodwill that is distributed to the unit. Further, the method used when determining the recoverable amount shall be disclosed, which can either be the value in use or the fair value less costs of disposal according to (c). When using the value in use method the subparagraph (d) shall be applied. This contains requirements concerning description about the key assumptions and how the values of each individual assumption arise. Further, the growth and discount rates shall be disclosed. Regarding the other method that can be used when determining the recoverable amount, which is the fair value less costs of disposal, the subparagraph (e) shall be applied. This subparagraph is constructed in a similar way as (d).

Finally, the subparagraph (f) concerns the sensitivity analysis that shall be conducted and disclosed; if the company finds that there is a need for impairment after making a reasonable possible change in one of the key assumptions (IAS 36.134). Further details of the required disclosures of paragraph 134 in IAS 36 are found in the scoring sheet in Appendix 1.

2.2 Corporate disclosures

The general purpose of corporate disclosures is to provide users of the financial statements with relevant information, in order to decrease the information asymmetry (Healy and Palepu 2001). Disclosures are an area that is frequently debated and a lot of research has been conducted, both concerning the mandatory and the voluntary disclosures. Barker *et al.* (2013) state that disclosures have become more important in IFRS for investors to assess the reliability derived from managerial decisions. Only if information is company-specific and private would a company benefit from disclosing it (Barker *et al.* 2013). Thus, making private information public is one of the main purposes of disclosing, and disclosures could be more important for companies with a higher proportion of private information.

In a paper from 2008 Leuz and Wysocki split up the disclosure field into firm-specific and market-wide effects on corporate disclosure. In the field of firm-specific benefits, the authors first show theories concerning market liquidity and adverse selection caused by information asymmetry. In his paper from 2001 Verrechia discusses what level of voluntary disclosure commitment can force uniformed traders to trade at a premium. Verrechia (2001) states that information asymmetry may not only increase the price, but also the number of shares traded as a precaution from less informed investors. Corporate disclosures might work as a remedy for this information asymmetry. The author shows the information asymmetry as a part of the cost of capital. It is also shown that this information asymmetry might also lead to a precaution towards newly issued capital, thus increasing the cost of raising capital.

By disclosing more, either in reports or mass media, a less informed investor might notice companies of whom they previously were not aware. This might lead to an increased investor base that might lower the cost of capital (Merton 1987). Even though there are a lot of benefits and incentives for the firm to disclose, there are at the same time a lot different costs that discourage these effects. Leuz and Wysocki (2008) state that these direct costs might be relatively straightforward but can be more burdensome in proportion for smaller firms. One of the indirect costs for disclosures is the fact that information is now available not only to your competitors but also to other parties such as tax authorities and labour unions.

As of market-wide effects, one of the theories comprises the spillover effect from increased disclosures in one company. Lambert *et al.* (2007) state that when one company increases its disclosure, this might not only simplify the valuation of this company but also have a spillover effect for valuating other firms. This effect might be small for each individual company but might add up to something substantial collectively. In their paper they state that this effect could justify increasing the quality of mandatory corporate disclosures, since this may lower the cost of capital for most of the companies. The increase in disclosure from one company can create positive spillover effects but can also draw away investors from other companies or even markets, thus creating negative externality (Fishman and Hagerty 1989). Also, investors might hold smaller numbers of shares because they believe it might be difficult to liquidate due to

adverse selection. This might create a market premium for bearing the extra risk of having larger amounts of equity (Leuz and Wysocki 2008). If a company reports fraudulent information, this might cause related organs, such as regulators and stakeholders, to react as if it were correct, causing market-wide negative effects. Even though these market-wide effects exist, companies normally have problems internalizing these externalities and tend to focus on the net benefits of the firm-specific effects (Leuz and Wysocki 2008).

Barker *et al.* (2013) discuss whether disclosures regulation should be principle-based or rule-based. They also state that previous research in this field shows on one hand a lot of the benefits of having principle-based accounting standards, but on the other hand that principle-based standards tend to perform poorly under weak enforcement. These conclusions are based upon accounting research not particularly research about disclosures. Barker *et al.* (2013) do not conclude whether these are applicable to disclosures and state that since disclosures embody more judgment, it will be more difficult to assess whether disclosure notes include relevant information.

2.3 Previous compliance studies

One sub-area to the disclosure research is disclosure compliance of impairments. More specifically, several studies examine paragraph 134 in IAS 36 in order to find the compliance degree. The three following studies all apply this compliance examination.

2.3.1 Three main studies

The European Union chose to transit into the mandatory use of IFRS in 2005. With this as their background Glaum *et al.* (2012) investigated to what degree different European countries complied with IFRS in 2005 and what could explain the different degrees of compliance. Glaum *et al.* (2012) collected data from stock markets spread across the European Union to investigate both country-specific and firm-specific factors. With compliance as their dependent variable they found out that goodwill positions, prior knowledge of IFRS, auditor type, existence of audit committee, ownership structure, the issuance of equities or bonds, and Industry as firm-specific independent variables all significantly influence compliance. These and compliance are also influenced by the traditions of the country measured as conservatism from European Social Survey. In addition to this, they state that the size of the national stock market and the degree of enforcement influence the degree of compliance.

Another large study that examines the variables in an international perspective was performed at Cass Business School by Amiraslani *et al.* (2013). They examine the IFRS compliance of asset impairments across Europe and the study consists of two separate parts, one where they identify the timeliness of impairment losses for non-current non-financial assets and the other one highlights country-wide and firm-specific characteristics. The timeliness is described as relating to the speed where changes in economic values of assets and impairments losses are acknowledged. In order to determine the timeliness, they perform a regression-based test, which aims to measure the financial reporting quality. They use a large sample with 4,474 listed European companies and in order to be able to identify the impact of divergence in institutions across European countries, they divide all the countries into three clusters. This grouping of

countries with similar characteristics is originally provided by Leuz (2010) and Amiraslani *et al.* (2013) describe the clusters as follows:

> *Cluster 1: includes countries characterized as outsider economies (large and developed stock markets, dispersed ownership structure, strong outside investor protection rules and strong legal enforcement)*
> *Cluster 2: constitute countries with insider economies (less-developed stock markets, concentrated ownership structures and weak outside investor protection and strong rule enforcement)*
> *Cluster 3: includes countries with insider economies and weak enforcement.*

The identification of country-wide and firm-specific characteristics is, on the other hand, performed by conducting a survey. The data collected is then used to create compliance indices in order to examine the accounting behaviour according to the level of compliance. The sample consists of 324 listed European companies, in order to get a more detailed examination of the impairment disclosures. Amiraslani *et al.* (2013) identified a few key findings in their research study. The findings that are of interest in our study are those concerning impairment disclosures and the effect of IFRS implementation. According to their research, there is uneven implementation of IFRS, due to significant variation in the compliance of impairment disclosures between European countries. Further, they establish that impairment reporting of high quality is more likely to be found in countries with strong enforcement. In contrast, for countries with weak enforcement the quality of impairment disclosures seems to be low. Finally, they found that the implementation of IFRS appears to have had a positive impact on the financial reporting practices, but at the same time there is capacity for improvements.

Fallström and Henriksson provided a master's thesis 2013 in which they examined whether Swedish companies' compliance level of paragraph 134 in IAS 36 can be explained by company characteristics. Therefore, this study gives an impression of the Swedish situation focused on a company-specific level. In order to identify findings in a more reliable manner, they divided the company characteristics into three groups: company-specific, institutional and goodwill-related. After assessing the degree of the compliance with an index, they performed a multiple regression analysis in order to measure the relationship to the variables. One of the key findings they identified is the fact that company size seems to have a significant impact on the degree of compliance: larger companies have a higher degree of compliance. Overall the study shows that the company characteristics only explain about 9% of the degree of the compliance. To conclude, all three studies have findings that indicates that disclosure implementation is affected by characteristics on country and company levels.

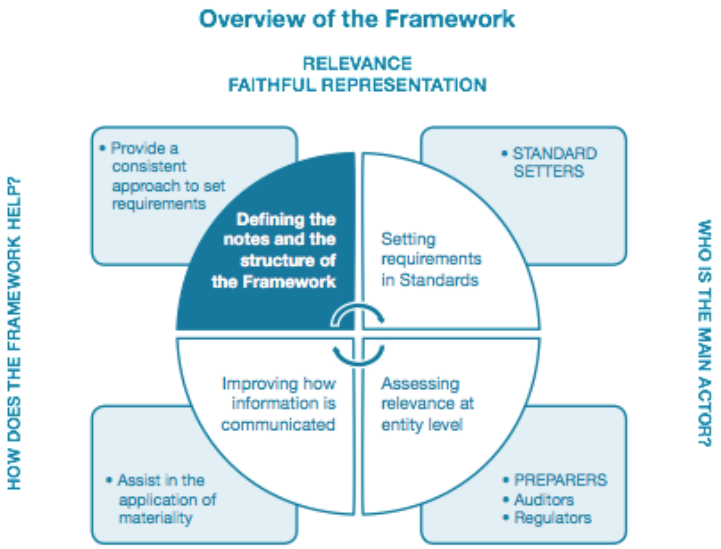
2.3.2 Disclosure framework

At an IFRS Foundation conference in 2013, Hans Hoogervorst discussed the not improved but increased amount of disclosures. He states that the risk is that the annual reports lose the function as a communication instrument and only have the function of a compliance document (Hoogervorst 2013). Due to this, one recent measure in the process of improving the disclosures is the proposition to adapt a section of the conceptual framework to include disclosures.

The purpose of this Disclosure Framework is to ensure that the information disclosed in the financial statements is relevant (EFRAG 2012). In 2012 EFRAG, ANC and FRC issued a Discussion Paper in which they claim that a few areas need to be discussed and resolved in order to create

an effective Disclosure Framework. The areas in focus were to identify what disclosures that are relevant, to discuss the meaning of materiality when it comes to disclosures and finally to develop policies for good disclosure communication. An overview of the Framework can be seen in Figure 2.1.

Figure 2.1 EFRAG Discussion Paper 2012



The issuing of the Discussion Paper has led to several published responses that comment on the information presented, one of which was published in 2013 by Barker *et al.* Overall Barker *et al.* (2013) support the initiative to put disclosures in a more well-established conceptual foundation. The contribution of their response is to comment on the different aspects in accordance with existing research. For instance, they establish that the significance of disclosures is higher when reporting according to IFRS, since the measurement methods require more subjective judgments. In order to be able to value the reliability of the disclosures, the user should receive information about the judgments made. Concerning the disclosure overload, Barker *et al.* (2013) claim that the current implementation of IFRS is the reason for the existence of the overload. They state that this is due to the requirements of specific disclosure items made by enforcement agencies, which creates a rule-based approach.

Regarding the materiality the Discussion Paper dictates that according to IFRS, companies do not need to disclose information that is not material. Barker *et al.* (2013) agree that there is a demand for guidance on materiality, due to the existing variations in the interpretation of materiality concerning disclosures. Finally, Barker *et al.* (2013) conclude that communication is a problem due to difficulties of locating information, which can be explained by the increased amount of disclosures in the financial statements. They present eXtensible Business Reporting Language as a possible way of improving the effectiveness of disclosures. The XBRL is a language for the electronic communication of business information that aims to benefit the whole process of business reporting (XBRL.org).

2.4 Country-specific factors

Country-specific factors are one way of explaining the compliance degree of disclosures. Amiraslani *et al.* (2013) claim that there are several country-level institutions that are of significance concerning accounting practices and the way they are implemented. They exemplify the nature of the legal system as one of these institutions. Dimaggio and Powell commented, in their study published in 1983, that the existence of a common legal environment affects many aspects of an organisation's behaviour and structure. Additionally, Hope (2002) finds that there is a correlation between the level of enforcement and the quality of disclosed material in the annual reports.

Studies that examined the effects of enforcement used various methods; La Porta *et al.* (1998) constructed an index that consisted of both private and public enforcement. This enforcement index is constructed by data collected via Lex Mundi law firms across the world in a fictional case of a related party transaction. The private enforcement part embodies related party transactions in two different aspects. One aspect is whether approval by disinterested shareholders is needed and the amount of disclosures needed before the related party transaction, which La Porta *et al.* (1998) call *Ex-Ante Control of self-dealing transactions*. The other aspect of the private enforcement is the *Ex-Post Control of self-dealing,* this being based upon the disclosures needed on a continuous basis and the ease of proving wrongdoing. The mean of these two then forms the private enforcement index, which for the United Kingdom and Sweden respectively is 0.95 and 0.33.

The Public Enforcement part of the index embodies the aspects of whether criminal sanctions are applicable on the parties involved in this even though all the disclosure and approval criteria were fulfilled. This index for public enforcement is 1 for Sweden and 0 for the United Kingdom (La Porta *et al.* 1998).

Another country-specific factor identified is the size of the national stock market and Leuz *et al.* (2003) found that the quality of the financial reporting is connected to the development of capital markets. Glaum *et al.* used a self-constructed index in a study published 2012, which consists of the ratio of the total market capitalisation to GDP, ratio of total number of listed companies to the country's population, and the ratio of the market turnover to the GDP. Therefore, the index measures the size and the activity level on the national stock markets. Additionally, Glaum *et al.* (2012) found that there is a positive association between the stock market-index and the compliance. When replicating and updating the index into a version for 2012, we received these numbers:

Table 2.1 Market size index

	Sweden	UK
Market capitalisation of listed companies (% of GDP)	107,010	122,157
Companies/Population (millions)	30,557	38,885
Stock traded, total value (% of GDP)	71,815	100,679
Index	69,794	87,240

A third country-specific factor is national tradition, which frequently consists of cultural aspects. When examining the culture, Hofstede's dimensions of national culture are commonly used. The revised dimensions are power distance, uncertainty avoidance, individualism, masculinity, pragmatism and indulgence (Hofstede 1983, The Hofstede Centre 2013). Regarding the individual values of the cultural aspects when comparing Sweden and the United Kingdom, the most significant difference concerns masculinity. When calculating the significance of the masculinity relative to the total values, the result is that 77% of the cultural difference can be explained by the masculinity. In contrast to this, Glaum *et al.* (2012) questioned the reliance of Hofstede's dimensions as a way of measuring the national culture since the empirical data that the dimensions are based on were collected almost 40 years ago. Due to this, Glaum *et al.* (2012) used another source when performing the cultural variable, which is data from the European Social Survey 2004.

Ultimately, Amiraslani *et al.* (2013) mention ownership structure as a country-level institution as being important. In contrast, the majority of studies that investigate the compliance degree identified the ownership structure as a firm-specific factor and not a country-specific. Even though ownership dispersion is usually seen as a firm-specific factor, there is evidence that ownership correlates to the minority shareholder protection (Bushman and Smith 2003) and thus can be seen as a proxy for shareholder protection.

2.5 Isomorphism

The process that forces a unit in a population to resemble other units that possess the same conditions, concerning the environment they are exposed to, is called isomorphism (Hawley 1986). Dimaggio and Powell published a study in 1983 that describes isomorphism as the mechanism that best exemplifies a harmonizing process. The study concerns institutional isomorphism, which is a type of isomorphism that exists in the organisational environment. The process of institutional isomorphism makes organisations increasingly similar, due to the intervention between individual organisations (Dimaggio and Powell 1983). The study provides a division into three mechanisms of organisational change: coercive, mimetic and normative.

The institutional change due to coercive isomorphism originates from the influence of politics and problem of legitimacy (Dimaggio and Powell 1983). They also state that coercive isomorphism results from both formal and informal pressures on an organisation, derived from organisations by which the organisation is dependent and the cultural expectations. The pressure can be perceived in several different ways, as a force or as an invitation, for example.

The second mechanism, mimetic, is frequently derived from uncertainty (Dimaggio and Powell 1983). This imitation practice can, for example, be at hand when an organisation has ambiguous goals. In this case, organisations could model themselves according to other organisations in order to meet the goals (Dimaggio and Powell 1983). Further, characteristics that are imitated are, for instance, a skilled labour force or a broad customer base.

Normative isomorphism, the third mechanism, originates mainly from professionalisation according to Dimaggio and Powell (1983). The interpretation of the concept professionalism used by Dimaggio and Powell is defined as follows:

> *[…] the collective struggle of members of an occupation to define the conditions and methods of their work, to control the production of producers, and to establish a cognitive base and legitimation for their occupational autonomy*.

In the study, two aspects of great importance are identified, namely the significance of formal education and the creation and growth of professional networks.

3. Research design

The third chapter consists of a description of the methodology used in the thesis, first in general, then more specifically about the sample and data collection. Finally the data processing and a few limitations are presented.

Our study was performed using a quantitative method. In order to identify the methodology appropriate for a specific study, there are a few preoccupations that distinguish a quantitative study. These preoccupations are measurement, causality, generalisation and replication (Bryman and Bell 2007 pp. 168-173). The measurements performed in a quantitative study result in advantages that are related to reliability and validity, for instance the consistency of measures performed. Quantitative research is often concentrated on explanations, according to Bryman and Bell (2007). This is linked to causality, due to the common occurrence of independent and dependent variables. This structure reflects the tendency to think in term of causes and effects. Generalisation is of importance due to the possibility of applying the findings beyond the context. Thus, with a representative sample the result will not be unique to the particular circumstance. Instead, it enables the results to be applicable in another context. Concerning replication, Bryman and Bell (2007) highlight the importance of describing the procedures rigorously, in order to enable others to replicate. Concerning our research study, all four of these preoccupations can be identified.

The research design of this thesis was based on the methods used in previous studies, primarily the three studies that we find fundamental to our research study. As mentioned in the frame of reference, these studies are performed by Amiraslani *et al.* (2013), Fallström and Henriksson (2013) and Glaum *et al.* (2012). Due to the inspiration from these previous studies and the desire of examine the relationship to one variable with a set of variables (Meyer *et al.* 2006 p. 149), our research design involves performing a multiple regression. A multiple regression consists of a dependent variable and several independent variables. The model explains the variability in the dependent variable according to the independent variables (Newbold *et al.* 2010 p. 507). A benefit with regression analysis is the possibility of distinguishing the strengths of the relationships, also known as significance. The dependent variable in our multiple regression is the degree of compliance, whilst the independent variables are a few firm-specific factors as well as a dummy variable for country. A more detailed description of the variables will be presented later in this chapter.

Table 3.1 Regression model

$$Y = \alpha_0 + \beta_1 GOODWILL + \beta_2 DISPERSION + \beta_3 COUNTRY + \beta_4 SIZE + \beta_5 ANALYST + \beta_6 BIG4 + \varepsilon$$

The methodology used in a research study can be based on either an inductive or a deductive approach. With a deductive approach, you start with theories and then try to find relevant empirical data in order to analyse whether the expectations are fulfilled (Jacobsen 2002). In contrast to this, an inductive approach implies that the collection of the data is the first step and then a transition from empirical data to suitable theories is conducted (Jacobsen 2002). Our thesis has a deductive approach due to the fact that several parts of our frame of reference and research design are based on previous studies. The variables we use in our multiple regression are the ones we find relevant in order to analyse whether there are differentiating country-

specific factors. Additionally, we perform a comparison between our findings and previous findings.

The details of the implementation process will be described accurately in this chapter. To investigate their interrelationship, all these variables will first be analysed by both a correlation analysis and a VIF-test. This is in order to find indications of what variables seem to be most important and to ensure that no multicollinearity is present.

3.1 Sample and data collection

Our study consists of a random sample of 119 companies with varying sizes that have recognised goodwill on their balance sheets. Companies without goodwill were excluded since this study only concerns disclosures of goodwill impairment. The companies are Swedish and British companies listed on two different stock exchanges but all operating in the same sector, Industry. The Swedish companies are in total 44 and all of them are listed on OMX Stockholm. The British companies are in total 75 and they are all listed on London Stock Exchange.

Körner and Wahlgren (2005) state that when running multiple regression analyses, it is important to implement the most essential, variables and when having a smaller sample there is a risk of over-fitting, which can lead to the results actually being more randomly structured than is typical for the actual population. In order to focus on country-specific factors in our study, we chose to limit our sample to just one sector, removing distortion from some firm-specific factors and increasing the degree of freedom in our tests by decreasing the number of variables in our model. By choosing Industry only, we do not need to use a variable to distinguish the sector, thus removing distortion.

The international comparison aims to highlight the significant institutional differences. The choice was made to compare Sweden and the United Kingdom since the enforcement system is fundamentally diverse in these two countries according to the cluster grouping provided by Leuz (2010): the United Kingdom is a cluster 1 country, while Sweden is a cluster 2 country. Another reason for choosing the United Kingdom and Sweden is that they, according to Nobes (2013), are classified as having different accounting systems underlying the IFRS. The United Kingdom is classified as micro-fair-judgmental and commercial driven while Sweden is macro-uniform, governmental-driven and tax dominated. Further, the fundamental legal systems are diverse in the two countries, where La Porta *et al.* (1998) refers to the United Kingdom as a common law country and Sweden as a Scandinavian civil law country. To conclude, these conditions, along with the fact that both Sweden and the United Kingdom are European countries that both apply the IFRS-regulation, makes the choice of comparing these two countries suitable.

3.1.1 Dependent Variable

As our dependent variable we have used a disclosure index that was constructed in a study by Fallström and Henriksson (2013). They state that no previous scientific publication used an appropriate compliance index for IAS 36 paragraph 134, and instead created their own. We have, however, chosen to remove one item from their index; a subparagraph concerning other immaterial rights other than goodwill. Since we are only measuring goodwill this part of the

index was deemed redundant. The index was constructed by allocating at least one point to each subparagraph's respective subsections in IAS 36 paragraph 134 (see Appendix 1). In this way an original index of a maximum of 21 points was created, which in our case corresponds to a maximum of 20 points.

The first step was to manually collect the annual reports for each of the 119 companies in our sample from the webpages of the companies. The majority of the reports were written in English, apart from a few Swedish small cap companies that only had annual reports published in Swedish. The disclosures were reviewed according to the scoring sheet, this was performed by comparing the requirements in the scoring sheet with the disclosed information. If the requirement of an item was fulfilled, a point was allocated to the company. This was repeated for every item in the index for every company in the sample. Two items on the scoring sheet afforded the possibility of receiving half a point; the contingency was if they either used one discount rate or one growth rate for every CGU instead of individually allocating one. Further, if a company was not mandated to disclose a specific item of the index, not applicable was noted instead. The occurrence of items that were not applicable was particularly present for a few subparagraphs, especially the ones concerning the sensitivity analysis since the majority of the companies had no need for impairments after conducting the reasonably possible changes on key assumptions. Further, all the companies in our sample used value in use when determining the recoverable amount and therefore the items concerning the fair value less costs of disposal were all noted as not applicable. In IAS 36 these items are found in paragraph 134.e (see Appendix 1).

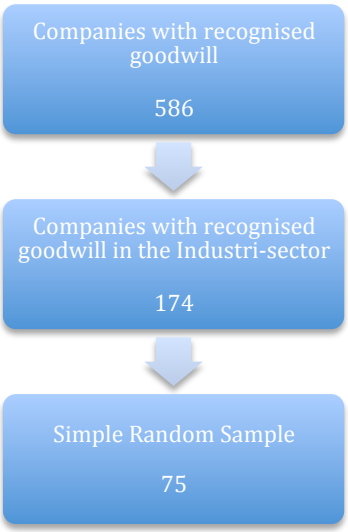
After each company was coded, the total number of points allocated to the company was summarised and divided by the total number of applicable items, thus creating a degree of compliance between 0 and 1. These were aggregated for every company and divided by the number of companies in our sample. The method of not adding weights to any items of the index makes every item as important for the total compliance, as per the method used by Fallström and Henriksson (2013). This method is also applied by Glaum *et al.* (2012), additionally they state that not adding weights is the most common practice when conducting a disclosure index.

To ensure a sample large enough, we chose the Industry-sector. Since the study is focused on IAS 36 and goodwill, we used Datastream to find all companies on the Swedish OMX Stockholm with consolidated goodwill in their annual reports for 2012. In addition, we compared the sample collected from Datastream with the revised lists of Industry companies presented on the website of OMX Stockholm, and found that there were a few companies that were not listed on the stock exchange any more. These were therefore excluded from our sample. Out of the 155 Swedish companies with recognised goodwill, 44 were operating in the Industry-sector. Thus, our sample for the Swedish Industry companies with consolidated goodwill consists of 44 out of the total population of 155 (Figure 3.1).

Figure 3.1 Sample Sweden

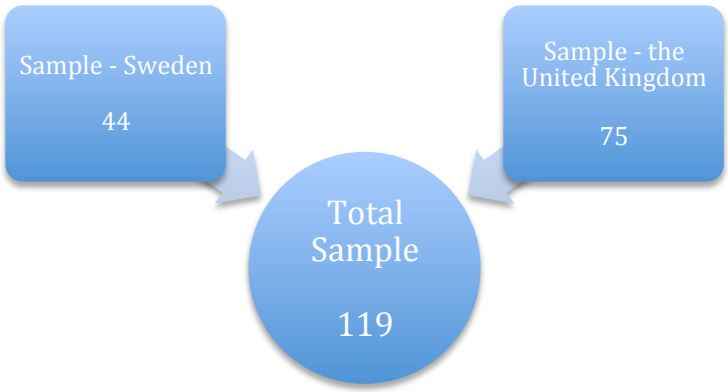
Due to the fact that the size of the London Stock Exchange is larger than OMX Stockholm, we decided to have a larger sample from the United Kingdom. We started by sampling all companies listed on the stock exchange with reported goodwill, which were 586 companies. Out of this sample there were 174 companies operating in the Industry sector. On these 174 companies we performed a simple random sample, which randomly distinguished 75 firms (Figure 3.2). The selection was made using the Simple Random Sample-function in Excel, in order to minimize the personal bias. The strength of this function is that it may create a miniature copy of the population without bias from the writers (Körner and Wahlgren 2005).

Figure 3.2 Sample the United Kingdom



By aggregating the sampled companies from both stock exchanges the total number of firms were 119. The total number of observations in a sample should be at least ten times the number of variables in applied model (Hill and Lewicki 2006, Hair 1998). In this study this assumptions is achieved since 119 is greater than the required amount of 70 companies (Figure 3.3).

Figure 3.3 Total Sample



A weakness with these disclosure indices is that they are subject to personal interpretations. To minimize this risk, every annual report has been processed twice. If an index item was especially hard to interpret, this was brought up for discussion between both writers to be settled. IAS 36 has received criticism, especially concerning paragraph 134, since the interpretation of the standard is intricate (Hoogendoorn 2006). A misinterpretation of the subsections in the paragraph could cause a bias in one of the most important variables, and thus the study would suffer from loss of validity. To mitigate this effect, we consulted an accounting specialist with certain knowledge about IAS 36 and paragraph 134. Due to this, we received verification that our interpretation of the paragraph is valid.

One difficulty we faced collecting this data, and which may have affected the result, concerns the sensitivity analysis part of the goodwill impairment test. There were a few different approaches about how to disclose concerning the sensitivity analysis. Most of the companies in this study used a boilerplate language, where they just restated the formulation used in the paragraph 134 in order to fulfil the compliance requirements. Another method applied involves disclosure regarding the actual change in the key assumption, which will remove the headroom, even though this does not seem likely, e.g. increasing discount rate by 10%. A third method we noticed was to disclose a change with one percentage point for each key assumption.

3.1.2 Independent variables

With this research study we aim to answer whether any country-specific factors can explain variations in the degree of compliance between Swedish and British companies that operates in the Industry sector. In order to determine the significance of different variables for our study we have reviewed previous studies made. The focus has been on studies that cover the area of variations in the compliance of disclosures explained by country-specific factors. Therefore, the selection of variables was made after analysing the results of primarily three studies, namely Amiraslani *et al.* (2013), Glaum *et al.* (2012), and Fallström and Henriksson (2013).

The main variable we use is in our regression model is called COUNTRY, which is a simple indicator dummy designed to pick up any discrepancies between Sweden and the United Kingdom. All companies from the Swedish market were given a 0, while all the companies from the United Kingdom were given a 1. This was instead of using many different variables for

different country-specific factors, which could not only lower the degree of freedom for our model but lead to a model were key variables were missing. This way we will catch the amount of compliance, which differs, between the two countries.

The first of our control variables is the size of the company, which in Fallström and Henriksson's study influences the compliance level, even if it is measured with indicator variables for small, mid or large cap, or as the natural logarithm of the revenue. Also Amiraslani *et al.* (2013) finds a significant connection between size and compliance. According to Leuz and Wysocki (2008), direct cost of disclosure is comparatively larger for smaller companies due to economies of scale, which could strengthen a hypothesis that size could influence the level of compliance. Glaum *et al.* (2012) state that they measure size with an index of the market capitalisation, total assets, number of employees, and revenue. They also state that they did not find a significant relation between the size and the compliance of the company.

With this in mind, we constructed a similar index, but excluding the variable for total assets and calling it SIZE. The reason for excluding this variable in our index is the relationship between the book value and the market capitalisation. Since every item in our index will be equally weighted, we believe that this relationship can cause a bias for capital intensive companies. All the data for the size index was gathered from Datastream and in a few cases the number of employees had to be found in the annual report of the companies. To ensure that SIZE is weighted equally between the three variables, we decided to divide each data with the largest in each group, thus causing all data to be a number between 0 and 1.

Since this thesis is limited to analysing goodwill impairment, one of our control variables is goodwill related. According to Glaum *et al.* (2012), there is a correlation between the amount of goodwill as a ratio to the total assets and compliance, while Amiraslani *et al.* (2013) find a connection between a company's compliance and the amount of impaired goodwill. In contrast Fallström and Henriksson (2013) did not find any significant influence by goodwill related factors and compliance. In this study we have chosen to use Glaum *et al.'*s (2012) approach of using goodwill as a ratio to the total assets, henceforth known as GOODWILL. But in contrast to Glaum *et al.* (2012), who manually collected the data, we used Datastream.

Barker *et al.* (2013) discuss small unlisted companies which are closely held by their owners and thus have a lot of private information inside the companies. Since companies with a larger proportion of private information might reap more benefits from increased disclosure (Leuz and Wysocki 2008), we believe there could be a difference in the degree of compliance between firms with different ownership dispersion. Even though there is a significant difference in the term closely held between small unlisted and listed companies, we still believe there will be a difference. Further, Amiraslani *et al.* (2013) have findings concerning the ownership concentration that indicate that with a high dispersion there is an increased demand of public disclosures. The approach of using the ownership dispersion was also applied by Glaum *et al.* (2012). They used Datastream/Worldscope to find out what proportion of the shares was held by strategic investors. To avoid the subjective bias that may arise from deciding who are strategic investors or not, we chose to gather the largest controlling investor via Datastream. In cases where this information was not available, companies' annual report or websites were used. We also took samples from the data collected via Datastream to ensure it was the same in the company's annual report. Even though we usually see ownership dispersion as a firm-

specific factor, there is evidence that ownership correlates to the minority shareholder protection (Bushman and Smith 2003) and thus can be seen as a proxy for shareholder protection.

The amount of analysts following a company can in accounting research function as a proxy for the information environment (Hope 2003). Therefore we have added, ANALYST, as one of our control variables. This was gathered through IBES database of Datastream. This is also strengthened by Healy and Palepu (2001), who show a correlation between increased *voluntary* disclosure and the number of analysts.

According to previous research, the perceived audit quality is profoundly higher if a company uses a Big-4 audit company, compared to a tier 2 company, even though the actual audit quality is only slightly different (Boone *et al.* 2010). This is contrasted by the fact that Glaum *et al.* (2012) and Fallström and Henriksson (2013) find evidence that having a Big-4 auditor influences compliance in a positive way. This is also consistent with Amiraslani *et al.'s* findings in 2013. In both these papers a binary indicator dummy variable was introduced. If a company used a Big-4 auditor then this was coded as 1 and if it used another it was coded 0. Since the similarities between these papers and this one, we chose to use the same method for the variable BIG4. The data were manually collected from the companies' annual reports.

Even though many of these variables are entity specific the results will also be investigated from an aggregated country perspective to provide evidence if there are discrepancies at a national level. A detailed description of all the variables can be seen in Table 3.2.

Table 3.2 Variables

Variable	Definition
COMPLIANCE	Using a compliance index where companies were given points for each of the requirements of IAS 36 p 134 was fulfilled.
GOODWILL	The amount of recognised goodwill as a ratio to the amount of recognised total assets. Gathered from Datastream.
DISPERSION	Largest controlling shareholding, gathered from Datastream and if needed complemented by respective companies' annual report or website.
COUNTRY	Dummy variable indicating from which country a company originates. If it originates from the UK it was allocated a 1 and if it origins from Sweden it was given a 0.
SIZE	An index constructed of the market capitalisation, employees and turnover for each of the companies. Data was mainly collected via Datastream with supplementary information about employees from their annual reports for a few companies.
ANALYST	The number of analyst following a company according to the IBES database using Datastream.
BIG-4	Dummy variable indicating if a company employs one of PwC, Deloitte, EY or KPMG. If it employs one of the above described companies it was allocated a 1, and if not it was given a 0.

3.2 Data processing

All variables, both dependent and independent, were compiled into one collective worksheet in Excel. This worksheet was then imported into the statistical software Stata to be processed and analysed. In order to measure how much each independent variable influences the dependent variable, a multiple regression was performed. This calculation captures the linear relationship between the variables, and thus this model will not capture any non-linear relationships.

According to Hair (1998) there are four assumptions of the data that should not be violated. One of these assumptions, auto-correlation of the residuals, is mainly associated with time series regression but since our study is cross sectional, this is not relevant. In this thesis the three assumptions we tested are: the normal distribution of the error term; constant variance of the error term; and that the relationship between the dependent and independent variables are linear. The unequal variance of the error term, also known as heteroscedasticity, is a violation of the assumption of constant variance of the error term (Hair 1998, pp. 172-176, White 1980). To investigate for heteroscedasticity, all independent variables except the dummy variables were plotted against the residuals of our model. If the residuals distribution increases or decreases uniformally in one way, heteroscedasticity might be apparent (Newbold *et al.* 2010 p. 614). In our model this is also remedied by using the Stata command Robust Standard Errors, "r". The unequal variance may also be mitigated by using the natural logarithm with a variable (Hair 1998, pp. 75-77). To investigate whether the error term was distributed normally, the residuals were plotted against a normal distribution using Stata, which creates a diagonal line with the residuals plotted around it if the residuals are normally distributed. To ensure that the sample relationship was linear, the residuals were plotted against fitted values of the model.

When using statistics there is always an uncertainty about how to handle outliers, which is an observation that is significantly different from the others (Hair 1998). One possible way of handling them is to remove all the observations that contain outliers. An advantage of this approach is the fact that you remove the distortion from an observation and maybe create a clearer relationship between the variables. On the other hand, this may also lead to misleading results or can be seen as data manipulation (Bryman and Bell 2007 p. 183). To counter such concerns, we applied a method knows as winsorization, which adjusts the most extreme values to the values closest to them. By defining at what percentile data are seen as outliers, the method of winsorization transforms all the outliers to the amount of the given percentile. In this paper outliers has been defined at the 5th percentile.

If an independent variable is dependent upon another, the explanatory power of the model is significantly lower. To ensure this, a VIF-test is performed in order to determine that the independent variables do not depend on other independent variables, thus ruling out multicollinerity. A VIF-value over 10 indicates severe multicollinearity and should not be tolerated. In this study the mean VIF-value was 1.25 with the highest value of 1.39. Even though these numbers seem acceptable, the variable could still be intercorrelated (Hair 2006 p. 193).

Table 3.3 VIF-test results

VARIABLE	VIF	1/VIF
GOODWILL	1.39	0.718333
DISPERSION	1.38	0.726976
COUNTRY	1.30	0.768512
SIZE	1.30	0.771077
ANALYST	1.14	0.877541
BIG4	1.02	0.978372
MEAN VIF	1.25	

3.3 Limitations

One of the limitations of the multiple regression analysis is the fact that if the underlying data observations are scarce, the regression line could be unstable and thus unlikely to be replicated. This is mitigated by having a data sample at least 10 times the amount of variables included in the regression. In our case we have a sample of 119 observations and 7 variables (Hill and Lewicki 2006, Hair 1998).

Another limitation is the difficulty in removing bias and accomplishing a representative sample. When performing a sampling, the sample will always be biased and the challenge is to remove, as far as possible, the bias from the selected sample (Bryman and Bell 2007 p. 183). Therefore, it is important to perform all possible measures to keep the bias on a minimum level. According to Bryman and Bell (2007), there are three sources of bias that can be identified. These sources are if a non-random sampling method is used, if the sampling frame is inadequate and if the sampling members refuse to participate. Regarding our sampling procedure the third source is not applicable due to the characteristics of our methodology. The other two sources have been taken into consideration because of the use of the Simple Random Sample-function that minimized the personal bias and the fact that we used the total population of Swedish companies that contain goodwill.

Finally, we involve secondary analysis of data when we use Datastream since the data is collected by others (Bryman and Bell 2007 p. 325). This method has both advantages and limitations. According to Bryman and Bell (2007 pp. 328-334), the advantages offered are, for instance, the fact that it is cost and time saving, it provides the opportunity for cross-cultural analysis and it results in more time for data analysis. Despite these advantages there are a few limitations with the secondary analysis, namely the complexity of the data, the lack of familiarity, the absence of key variables and the lack of control over data quality (Bryman and Bell 2007 p. 334-336). In our case, the involvement of secondary analysis is complemented by our own collection of data. The decision of whether to collect the data ourselves or from Datastream was based either on the lack of relevant data in Datastream or questioning of the quality of the data.

4. Empirical results

In this chapter the empirical findings of the thesis are presented. The multiple regression will be analysed and commented on, then the results of each variable will be shown separately starting with the dependent variable, followed by the independent variables in accordance with significance level. To begin with, the correlation analysis will be presented.

4.1 Correlation analysis

According to the correlation matrix, there are several statistically significant correlations between the variables (Table 4.1). The correlations that are of significance to our study are those concerning the COMPLIANCE. Due to this, the presentation is limited to the variables that have statistically significant correlation to the compliance. There is a significant positive correlation between GOODWILL and COMPLIANCE; the correlation is 0.281 at a 1% significance level. The independent variable DISPERSION has a negative correlation with COMPLIANCE, which is -0.231 below 5% significance. SIZE also has a positive correlation with COMPLIANCE, which is 0.208 below 5% significance.

Table 4.1 Correlation analysis results with corresponding significance level

CORRELATION							
	COMPLIANCE	GOODWILL	DISPERSION	COUNTRY	SIZE	ANALYST	BIG4
COMPLIANCE	1						
GOODWILL	0.281***	1					
DISPERSION	-0.231**	-0.104	1				
COUNTRY	-0.0472	0.131	-0.398***	1			
SIZE	0.208**	-0.0293	-0.172*	-0.0663	1		
ANALYST	0.0113	-0.00691	-0.193**	-0.0588	0.269***	1	
BIG4	0.160*	-0.0302	0.0151	-0.244***	0.473***	0.238***	1
SIGNIFICANCE							
COMPLIANCE	1						
GOODWILL	0.0020	1					
DISPERSION	0.0116	0.2614	1				
COUNTRY	0.6101	0.1568	0.0000	1			
SIZE	0.0230	0.7519	0.0607	0.4734	1		
ANALYST	0.9027	0.9406	0.0350	0.5254	0.0031	1	
BIG4	0.0813	0.7446	0.8701	0.0074	0.0000	0.0090	1

*** p<0.01, ** p<0.05, * p<0.1

4.2 Empirical findings of the regression

4.2.1 The model in general

There are a few methods to evaluate whether a model is applicable or not. One way is to judge the F-value, in our case 4.111, which tests a null hypothesis where all the coefficients together are equal to zero. The Prob > F is in this case 0.0009 and tells us that there is a 0.09% chance that this null hypothesis is true. In this case this value indicates that at least one of the coefficients is separated from zero, thus making the model significant. This can also be strengthened by looking at each coefficient individually by evaluating either the t-value or p-value. The t-values will, in most cases, give the same result but in order to assess something these values need to be compared using a Student's t-distribution chart and evaluate the regression's degree of freedom (Hair 2006 p. 183). A p-value gives the probability of having a t-

value higher than the required solely by chance (Andersson *et al.* 2007 p. 61-62). For example, at a 5% significance level the p-value has to be below 0.05. This percentage means that there is a 5% chance that the coefficient for that independent variable emerged randomly, and thus a 95% chance that this relationship is genuine.

In a multiple regression model the r-square is called the coefficient of determination, and it is used to explain how well the data is fitted with the regression. The higher the r-square, the better the model fits the data and the maximum value is one. Basically 19% of COMPLIANCE can be explained by these variables (Hill and Lewicki 2006 p. 345). One more method is to assess the Root MSE: the lower the number the better fit for the model. However, this number shall only be assessed when using similar variables due to fact that there are no standardised values for this (Hyndman and Koehler 2006). Since there are no similar models in this study this low value cannot be interpreted correctly. Also when investigating the assumptions required for a multiple regression only one assumption was violated, this being the presence of heteroskedasticity in the variable SIZE. This is further discussed in subsection 4.2.2.

Table 4.2 Model definition

$$Y = \alpha_0 + \beta_1 GOODWILL + \beta_2 DISPERSION + \beta_3 COUNTRY + \beta_4 SIZE + \beta_5 ANALYST + \beta_6 BIG4 + \varepsilon$$

Table 4.3 Regression results

VARIABLES	β	t	Confidence interval	P-value
GOODWILL	0.377***	2.801	0.110 - 0.643	0.006
DISPERSION	-0.004**	-2.337	-0.007 - -0.001	0.021
COUNTRY	-0.071*	-1.752	-0.152 - 0.009	0.082
SIZE	0.018	1.521	-0.005 - 0.041	0.131
ANALYST	-0.003	-1.177	-0.008 - 0.002	0.242
BIG4	0.065	0.794	-0.097 - 0.226	0.429
Observations	119			
R-squared	0.191			
Prob >F	0.000911			
F test model	4.111			

*** p<0.01, ** p<0.05, * p<0.1

4.2.2 The variables

The mean of the dependent COMPLIANCE variable for both countries turned out to be 72.8%, compared to Sweden and the United Kingdom individually who respectively had a mean of 74.1% and 72.0%. The standard deviation of both countries were 21.1%, while the respective standard deviations were 17.6% and 23.0%. The aggregated median of both countries is 75%, which is also negatively skewed. This means that the samples is left tailed, thus having more numbers that are higher than the mean in contrast to lower. Both Sweden and the United Kingdom had companies with the minimum value of 0 and the maximum value of 1. More specifically there was one company in Sweden with the value 0 and three companies in the

United Kingdom with the minimum value. Regarding the maximum value the distribution between the countries was even, with three companies each.

The data for independent variable GOODWILL was transformed using winsorization. Regarding the goodwill to total assets quota, the mean of the total study was 28.1% whereas the Swedish mean was 25.5% and the British was 29.7%. Thus the British companies have more recognised goodwill to total assets compared to the Swedish. The coefficient for the GOODWILL variable was 0.377 (see Table 4.3), which translates into an increase in GOODWILL by one unit increasing compliance by 37.7%. The magnitude of this could at first glance seem huge but because GOODWILL is expressed as a quota the largest possible outcome is 1. An increase with 1 is impossible due to fact that goodwill could never be a company's only asset. Thus the real magnitude of this coefficient is an increase in GOODWILL by one percent of a unit will lead to an increase in compliance of 0.377%. This relationship between GOODWILL and COMPLIANCE is significant below 1% (p=0.006).

Table 4.4 GOODWILL distribution

GOODWILL	FREQ	PERCENT	CUMULATIVE
0-5 %	9	7.56	7.56
5-10 %	9	7.56	15.13
10-15 %	14	11.76	26.89
15-20 %	4	3.36	30.25
20-25 %	12	10.08	40.34
25-30 %	19	15.97	56.30
30-35 %	14	11.76	68.07
35-40 %	12	10.08	78.15
40-45 %	7	5.88	84.03
45-50 %	6	5.04	89.08
50-55 %	4	3.36	92.44
55-60 %	9	7.56	100

Concerning the independent variable DISPERSION, the mean of both Sweden and the United Kingdom is 21.2%, while the Swedish mean is 28.6% and the British is 16.8%. The standard deviation on the other hand is 14.4% for both countries, 15.2% for Sweden and 12.1% for the United Kingdom. From the regression it is clear that the ownership dispersion has an influence of the compliance level below a significance level of 5% (p=0.021). The magnitude of this relationship is -0.004, which can be seen in the Table 4.3. Supposing that the largest shareholder increases the ownership by 1%, the compliance level will drop by 0.004 in absolute numbers.

The main findings of the regression come from the independent variable COUNTRY, due to the second research question of this thesis. As shown in Table 4.3, companies from the United Kingdom have a negative impact on compliance. The coefficient for the variable is -0.071. Thus operating in the United Kingdom, statistically, means having 0.071 lower compliance compared to Swedish companies. Since this is a dummy variable, it has to be interpreted with caution, due to the fact that the negative impact is only applicable between the United Kingdom and Sweden.

The negative coefficient is due to the fact that companies that operate in the United Kingdom are coded as 1, while the Swedish companies are coded as 0. Thus if the circumstances would have been the opposite Sweden would have an equally positive coefficient. In this regression model the variable COUNTRY has a significant influence on compliance, however only below a significance level of 10% (p=0.082).

When the data concerning the SIZE variable were tested for heteroskedasticity by plotting size variables compared to residuals from the regression, there was an indication of heteroskedasticity. This was mitigated by multiplying each item of the size index with the natural logarithm. The same data was also transformed using winsorization. Since the independent variable SIZE is constructed as an index and also multiplied by the natural logarithm, the values are hard to relate to real values. Despite this, the individual values for Sweden and the United Kingdom can be compared in order to identify discrepancies. The mean in Sweden was -3.8 whereas the mean in the United Kingdom was -4.0. The magnitude of the SIZE coefficient indicates that an increase in the variable by one unit will increase the compliance level by 0.018. On the other hand, this increase is not significant even at a 10% level (p=0.131).

The number of analysts has a mean value for both countries of 12.1, but for Sweden and the United Kingdom 12.7 and 11.7 respectively. Due to a lot of missing values from IBES Datatream, where the data were collected, this variable is also winsorized. The coefficient is –0.003, which indicated that when increasing the amount of analysts, the compliance level decreases. Additionally there is no significance at any level (p=0.242).

In this study 90.7% of the companies appoint one of the Big-4 audit firms. In Sweden all of the companies appoint a Big-4 firm, while in the United Kingdom the mean is 85.3%. As seen in Table 4.3 there is no significant relationship between having a Big-4 audit firm and compliance level (p=0.429).

5. Analysis

This chapter consists of analysis and interpretation of the empirical material found. In addition, our findings are compared in accordance with existing theory and previous research presented in the thesis.

When analysing this regression and these individual variables, it is of importance to keep in mind that all findings are only applicable to our specific sample. Therefore, the findings are limited to only comprise the comparison between Sweden and the United Kingdom. In addition, the findings are only comprised by the Industry sector. These limitations are all applicable to the following analysis, and will therefore not be repeated for each individual finding.

5.1 Variables

The median of the variable COMPLIANCE is 75% for both countries. There is a discrepancy between the two countries, which can be seen in the individual mean values. This discrepancy could be explained by the fact that the United Kingdom has more companies with minimum compliance, and additionally, the sample of the United Kingdom is larger. The discrepancy according to our regression can be derived from both country and firm-specific factors. The fact that Sweden had a higher mean COMPLIANCE was not in line with Amiraslani *et al.* (2013). According to their findings countries from cluster 1 should indicate a higher compliance due to the institutional environment. This discrepancy could also be explained by the difference in the underlying accounting system (Nobes 2013). With a coefficient of determination of 19% these variables can only explain 19% of the linear relationships between them and COMPLIANCE. This could indicate, that there could be more variables that influence compliance, which are not included in our model. It could also indicate, that our variables are not calculated in the best way possible for explaining COMPLIANCE. However, when comparing level of determination from other similar studies our level of 19% seem reasonable since Glaum *et al.* (2012) show coefficients of determination with a range between 22-35% and Fallström and Henriksson's (2013) have a determination degree of 9%.

The variable GOODWILL in our regression has both magnitude and significant influence over COMPLIANCE. This is strengthened by the fact that this was also found in the correlation analysis. This finding in line with Glaum *et al.* (2012), which also finds that increased goodwill compared to total assets improves the total compliance level. In contrast, Fallström and Henrikson (2013) do not find any relationship between goodwill-related characteristics and compliance. Amiraslani *et al.* (2013) discuss that companies with a higher goodwill intensity and more recognised goodwill tend to disclose more. This is in line with our findings and it is also in line with the principle of materiality. We find traces of the on-going discussion that companies need guidance for using the materiality override (Barker *et al.* 2013). In our study we had a few companies that chose not to disclose about goodwill impairment at all. Most of the non-disclosing companies had GOODWILL below 5%, but there was one diverging company who had a goodwill quota of 39%. Unlike the non-disclosing companies there were a lot of companies that had a GOODWILL level below 5% that still chose to disclose. The materiality judgments is fundamental in this case, with no clear guidance the companies are making varying judgments that affects the disclosure substantially. From our data it can be seen that companies with the same GOODWILL level make different choices whether to disclose or not, which indicates the need of guidance. Since three of the total four companies that does not disclose about goodwill

are situated in the United Kingdom there might be an indication that there might be a divergence in how to use this materiality override. According to the correlations analysis there is no significant connection between GOODWILL and COUNTRY. This combined with the regression provides evidence that the level of goodwill to total assets in the different countries influences the COMPLIANCE at a similar level. Thus ruling out the possibility that there could be national differences in how to recognise goodwill.

The fact that DISPERSION significantly influences the compliance level in this study is in accordance with both the corporate disclosure theory, that are highlighted in the frame of reference, and the significant correlation found in the correlation analysis. If we assume that companies with higher ownership concentration have more private information, there should be incentives to increase disclosure. The findings indicate that with higher ownership dispersion the demand for public disclosures increases (Amiraslani *et al.* 2013). Glaum *et al.* (2012) also finds a significant correlation between his variable for ownership dispersion and compliance. Concerning the DISPERSION variable there are severe differences found between Sweden and the United Kingdom, where the United Kingdom has a more highly dispersed ownership compared to Sweden where it is more concentrated. This can be seen when looking at the individual mean values; the Swedish mean is 28.6% while the British mean is 16.8%. Usually DISPERSION is seen as a firm-specific factor, but Amiraslani *et al.* (2013) identified it as a country-specific factor. In most cases the country-specific factors are connected to the COUNTRY variable. This may also bring some justice to Amiraslani *et al*.'s (2013) conclusion about the COMPLIANCE. Previously stated that since the United Kingdom is allocated to cluster 1, there should be a higher compliance, this institutional effect might actually be captured in the DISPERSION coefficient instead of COUNTRY. The fact that DISPERSION is significant at a 5% level according to our regression together with the divergence in the mean values proves that the differences exists at a country-level and not only at a firm-level in the Industry sector. The divergence on the country-level can be explained by, for instance, the enforcement system or the national tradition. These findings are further strengthened from the results of the correlations analysis, where a significant correlation of -0.398 at below 1% between COUNTRY and DISPERSION is apparent.

Due to the aim of identifying country-specific factors the COUNTRY variable is of great significance. None of the main articles we highlighted employs a dummy variable, thus the results will be harder to compare. According to our regression, a lower compliance level for the United Kingdom compared to Sweden can be seen. Due to the fact that a dummy variable is used the difference can be explained by several country-specific factors. One country-specific factor that is crucial is the enforcement system and this is because of the fundamental differences between Sweden and the United Kingdom, since Sweden has a civil law legal system while the United Kingdom has a common law system. On the basis of these two diverse legal systems this has an effect on companies operating in the two countries respectively, for instance the protection of minorities are severely higher in the United Kingdom then in Sweden due to the common law. We assume that disclosure quality equals better compliance with a specific set of rules, in this case the IFRS. Therefore, Hope's (2002) theory about correlation between disclosure and enforcement could explain a part of the COUNTRY variable by analysing the enforcement level of each country. When comparing the La Porta indices, both the public and the private, the index that could explain the difference in compliance best would be the public enforcement index. According to La Porta *et al.* (1998) Sweden has better enforcement in the

public index, in contrast to the private where the United Kingdoms enforcement is superior. Applying only the public index is the same methodology as Glaum *et al.* (2012) used. They have findings that show that the enforcement is significant at a 10% level. The findings of Amiraslani *et al.* (2013) indicates that the goodwill-related disclosures are low in countries with weak enforcement, however both Sweden and the United Kingdom are countries with strong enforcement and are therefore not included in this finding.

An additional country-specific factor that can explain the compliance difference between Sweden and the United Kingdom is the indication found by Leuz *et al.* (2003) that the size of a capital market could have an impact on financial reporting. If we use the numbers derived from the index of the capital market sizes (Table 2.1), we can draw the conclusion that there should be a higher quality financial reporting for companies listed on the London Stock Exchange, due to the fact that it is larger. On one hand this conclusion and Glaum *et al.*'s (2012) findings can not be verified from the regression, on the other it can not be reject. This due to the fact that the effect can still be there but there are other country-specific factors that might influence stronger in the opposite direction, turning the coefficient negative.

According to Hofstede's cultural dimensions there are several similarities between Sweden and the United Kingdom, and the majority of the dimensions have the same tendency. However, there is a large divergence in one of the dimensions, which is the masculinity. In Sweden these level is very low while in the United Kingdom it is significantly higher. Using these dimensions as a tool for analysing the country-specific differences the masculinity can be identified as an explanatory factor. Glaum *et al.* (2012) integrated a cultural variable that was called conservation, though not based on Hofstede, and found that the national traditions influences the compliance in combination with company-specific factors. Another tradition theory that might explain this discrepancy between the two countries is the fact that they had different accounting systems before the implementation of IFRS (Nobes 2013).

When analysing the COUNTRY variable, it is important to highlight the fact that there is no significant correlation in the correlation analysis between COUNTRY and COMPLIANCE. This stand in contrast with the findings of the regression, but then again the correlation analysis does not take other variables into account.

In the regression of this thesis the variable SIZE does not significantly influence the compliance level, which is in line with Glaum *et al.* (2012). This in contrast to Fallström and Henrikson (2013), who found a correlation between both sizes measured in what size-cap or as the natural logarithm of the revenue. Additionally, this is also strengthened by Amiraslani *et al.* (2013). Whether size actually influences compliance in the Industry sector is hard to analyse, since both Amiraslani *et al.* (2013) and Fallström and Henriksson (2013) finds a correlation between all companies at the markets, it might not be applicable in the Industry sector. One factor that is in favour of the argument that company size influences the compliance level is found in the correlation analysis, where there is a significant correlation between COMPLIANCE and SIZE.

Another independent variable that is not significant is the ANALYST. Despite this there is an indication that with more analysts the compliance degree seems to lower. This is in contrast with the relationship between increased voluntary disclosures and analyst coverage (Healy and Palepu 2001). This could be explained by the fact that this theory is not applicable on mandatory

disclosures. It should be noted that the 95% confidence interval does actually range from -.008 to .002, which at that level of confidence it is impossible to rule out the fact that the real relationship between the number of analyst and compliance might be positive.

The findings, in the regression analysis, that a Big-4 auditor does not influence the compliance stand in contrast to what Amiraslani *et al.* (2013), Glaum *et al.* (2012), and Fallström and Henriksson (2013) finds. Their findings imply that appointing a Big-4 audit firm result in higher disclosure quality. However, in the correlations analysis we can perceive that SIZE have a significant correlation with BIG4, which could be in line with Amiraslani *et al.*'s (2013) findings. The correlation analysis also finds that there is an indication of correlation between COMPLIANCE and BIG4 below 10% significance level ($p>0.0813$). However, the results from the regression do stand in line with Boone *et al.*'s (2010) findings that having a Big-4 audit firm increase the perceived audit quality, while the actual is approximately the same. This is with the assumption that a higher compliance is in fact higher quality.

5.2 Institutional isomorphism

Concerning the theory about the institutional isomorphism, there can be connections made to the disclosure methods used by the companies. Our results indicate that there is a higher level of compliance in Sweden compared to the United Kingdom. However, the difference is 2.1% and therefore we believe that the companies in both countries might be affected by the institutional isomorphism, in order to increase the levels of compliance in an equivalent amount. The level of ambiguity and subjective uncertainty turn disclosures into a big question for companies. These ambiguity and uncertainty is what DiMaggio and Powell (1983) names as a common signature for the mimetic isomorphism. The fact that all observed companies in this study used the value in use method when determining the recoverable amount, could be seen a way to solve this uncertainty. If other companies already employ the value in use method, their way of doing it is already legitimised. An additional example of the mimetic isomorphism, that we observed, involves the disclosures about the sensitivity analysis. The sampled companies seem to use the same values of the changes in the key assumptions, when performing the calculations required. Due to these observations parallels can be drawn to the boilerplate phenomena, companies are merely restating the paragraph requirements to handle uncertainty of disclosures.

Another explanation can be the normative isomorphism, since the majority of the companies have appointed one of the Big-4 audit firms. These firms could therefore act as carriers of the knowledge and influence the behaviour in a positive way, due to the advantages of professionalization. Even though there are two different countries in our comparison the Big-4 firms are not significantly different between countries. For instance, PwC in Sweden is expected to have the same norms and systems as PwC in the United Kingdom. Therefore, increased quality of the disclosures due to the advantages of using a Big-4 firm could be applied for both countries. Additionally, the similarities between the countries can also result from the fact that they operate in the same sector and that praxis for that specific sector could have evolved. Also the harmonisation process that the implementation of IFRS has led towards is a part of the observed similarities.

In contrast to the forces that make companies disclose in a similar way, the coercive isomorphism could be a part of the variation in the compliance level, due to differences in the enforcement system and the pressures on the companies that exists.

5.3 Corporate disclosures

Several recent studies have identified the phenomena of restating disclosure requirements, in order to fulfil the requirements in the regulations (ESMA 2013, Barker *et al.* 2013 and Amiraslani *et al.* 2013). This is something we also noticed when controlling the annual reports, one area where it frequently appeared was in the sensitivity analysis. This boilerplate behaviour stems from a lack of rule-based regulations (ESMA 2013), while Barker *et al.* (2013) emphasizes the need of good enforcement when using principle-based accounting system, especially a principle-based disclosure system. A problem that might arise from companies applying this boilerplate approach is the valuation spillover effect identified by Lambert *et al.* (2007) might be disabled. We believe that simply restating the paragraph will not help and simplify the valuation of other firms. Due to the subjective nature of this phenomenon, it could be possible that these restatements could include misleading information. This might have market-wide negative effect in the same way fraudulent information does (Leuz and Wysocky 2008). Thus sending misleading information to regulators, enforcement agencies, and stakeholders, causing them to make improper decisions. This could be seen as a major problem for the regulation bodies, in this case IASB, due to the fact that some of the primary stakeholders of accounting are investors and shareholders (Marton *et al.* 2012 p. 30).

Since disclosures are subject to a lot of judgments there might emerge a gap between the information disclosed and the underlying economic reality. By combining ideas about valuation (Lambert *et al.* 2007) and mimetic isomorphism (DiMaggio and Powell 1983) we believe that there might emerge either positive- or negative spillover effects when imitating companies with more extensive disclosures and highly developed impairment process. For instance, imagine a company whose process and disclosures are at a high quality, according to DiMaggio and Powell (1983) other companies will have a tendency to imitate these. The imitating company has to make a decision to either imitate the whole process or just imitating the disclosed information. By imitating the whole process companies will add to the positive spillover effect discussed earlier. While just copying the disclosed information we believe that it could lead to only disclosing information in order to fulfill the compliance, but not explaining the underlying economic reality. We also believe that entity specific processes concerning goodwill impairment might be difficult to imitate due to the sensitive nature of the processes.

The sensitive nature of disclosures becomes visible when it comes to the entity-private information. This type of sensitive information can be an incitement for withholding information from authorities and competitors for example, and therefore companies might not disclose as much as necessary according to the compliance requirements. The result from our study has most likely been affected by this withholding of information, which influence the level of compliance in a negative way. Although, this effect can be presumed to influence both Sweden and the United Kingdom since the effect is entity-specific and therefore emerge on a firm-specific level and not a country-specific.

Another phenomena discussed is disclosure overload, which according to Barker *et al.* (2013) is due to the rule-based approach created by the enforcement agencies. The overload of

disclosures makes it difficult for the user of the financial statements to find the relevant information. When looking at the annual reports of the companies in our sample we have identified severe variations in the amount of information disclosed. Some companies only disclosed minimum information, if any, while some others explained in detail the calculations and assumptions. Another observation we made that might be called overload, was the fact that it is often explained how to calculate the recoverable amount in multiple parts of the annual report. The majority of the companies present this both in the beginning of the notes, where general account principles are described, and then duplicated in the specific note concerning the goodwill impairment. Concerning the companies with inadequate disclosures, the costs connected to the disclosing could be an explanation. This since the companies with no disclosures about goodwill impairment were all represented by the smallest companies in our sample. The indirect cost as a reason for not disclosing is harder to derive due to the sensitivity of that matter. However, we believe that this is commonly appeared since companies with a possible need for impairment later on might not want to disclose about this, since the impression of the economic future of that specific company turns negative.

6. Conclusion and Discussion

In this chapter a final discussion and conclusion will be presented. First, the key findings are identified, and then the findings are discussed, with the introductive discussion in mind. Further, a discussion concerning the validity and reliability perspective are held. Ultimately, suggestions for further research are outlined.

The purpose of implementing IFRS was to increase the comparability and transparency between companies. This study considers the annual reports eight years after the implementation process started and we question whether there still are any country-specific differences that affect the disclosure behaviour, when comparing two European countries.

6.1 Conclusion

The research questions of this thesis are: to what extent do Industry companies listed on OMX Stockholm or London Stock Exchange comply with paragraph 134 in IAS 36?; and can the level of compliance be explained by any country-specific factors? Regarding the level of compliance, our study shows that companies listed on OMX Stockholm comply with 74.1% of the IAS 36 paragraph 134, while companies listed on London Stock Exchange comply with 72.0%. Even though the medians of these were both 75%, a significant discrepancy between the two countries was detected in the regression. This country-specific variable enables the answering of the second research question, i.e. whether the compliance degree can be explained by any country-specific factors. Since there is a discrepancy between Swedish and British companies, this could be explained by a few factors, these are the enforcement differences and variations in the cultural traditions, especially the masculinity.

Concerning the enforcement factor the fundamental differences between Sweden and the United Kingdom can validate this as a relevant factor. Further, Glaum *et al.* (2012) finds an indication of enforcement influence on compliance, which we believe is in line with our findings and is therefore also contributing to the relevance. The use of Hofstede's dimensions when investigating the national culture is not applied by any of the main studies in this thesis. Therefore, comparing results in not viable. Additionally, it could be questioned whether masculinity has any effect on accounting behaviour, and as the dimension scores are based partly on data collected from the year 1967, they therefore might be out of date (Hofstede Centre 2013). However, the influence of the national culture is not diminished as a variable without relevance, only the use of this version is questioned.

Further, the significant differences in dispersion between the two countries can explain the discrepancy. The variable DISPERSION is in some studies seen as a firm-specific factor, while in others as a country-specific factor. We can see that the key shareholder positions are smaller in the United Kingdom, which could be explained by a favourable institutional environment in the United Kingdom. This, in combination with the results from the regression where DISPERSION was a significant influencing factor to COMPLIANCE, makes the DISPERSION in this study as one country-specific factor that explains the discrepancies between Sweden and the United Kingdom. In the frame of reference we identified a fourth country-specific factor, which was the size of the national stock market. This theory was not supported by our findings, since the compliance level was higher in Sweden compared to the United Kingdom. Further, the variable GOODWILL can be seen as an important finding due to the significant influence on COMPLIANCE

even though it is not a country-specific factor but a firm-specific. However, due to the aim of investigating the presence of country-specific factors this is not seen as a key finding in this thesis.

6.2 Discussion

As identified in the first chapter of this thesis, disclosures are an intricate area. After conducting this study we can confirm that disclosure behaviour differ between companies and, to some extent, countries. Therefore, in accordance with our findings, the variations in the implementation of IFRS are still apparent. These variations, that we found, and what they might origin from, are discussed in section 6.1. As the findings of this thesis clarify, the harmonisation process has not been achieved at this point. Due to these variations, we recognise the need and benefit of a Disclosure Framework, which should simplify the accounting behaviour for companies. However, the harmonisation can be limited by the fact that companies want to withhold sensitive information.

Another phenomenon that we noticed, which is also observed by previous studies, is the boilerplate behaviour. Companies use this for fulfilling the requirements in the regulations. There is a connection between the boilerplate behaviour and the institutional isomorphism, since companies imitate others. This behaviour could contrast to the original purpose of the disclosures, by sending misleading information or signals. Thus, the role of disclosures as a communication tool could get lost.

To sum up, the disclosure behaviour is hard to harmonize and we can only speculate about the effects of the Disclosure Framework, in case it is implemented, and other measures made on impairment disclosures and related research.

6.2.1 Validity and Reliability

In this section we will discuss specific circumstances related to our study, in order to confirm the validity and reliability of this thesis. Thus, this discussion aims to determine the quality of the study.

The coefficient of determination of our study is 19%, thus explaining the *linear* relationship between COMPLIANCE and the independent variables. This can be translated into that 81% of the compliance level is explained by factors not included in this regression. This is due to our definition of the multiple regression and thus depends on our variables. A coefficient of determination on a 19% level is in comparison to our main studies satisfactory.

First of all, it is of significance to point out that the compliance index can be exposed to author bias, either in the form of data manipulation or subconscious behaviour. Even a minor error could have major consequences for the whole study, but we have performed suitable measures to minimize this risk, for instance, gathered data has been reviewed twice. Further measurements, to increase the validity of the multiple regression model, were validated to be in accordance with all of the required assumptions associated with it. Concerning the assumption of heteroskedasticity it is important to mention that measures performed to mitigate this effect slightly alter the data.

The Swedish sample of this thesis is based on the whole population, where the population is defined as listed companies operating in the Industry sector with recognised goodwill. The British companies, on the other hand, are a sample of the population, where the population has a similar definition. The total sample of this study should therefore be representative compared to the populations. However, it can be questioned whether the choice not to use all sectors and thus all listed companies with recognised goodwill is optimal. Using all, there would be a trade-off between the amount of variables and the chance of significant findings. As a result of our belief that the country-specific factors are not sector-specific, we ended up using only one sector. We believe that this fact increases the chances of significant findings.

We find a highly significant relationship between COMPLIANCE and the variable GOODWILL. However, this goodwill-related variable might not be the optimal one. We believe that including several goodwill-related variables could give a more true and fair view of the relationship. Regarding our study, this measure was not implemented due to the decrease in the chance of significant findings that this increase in variables would lead to. Concerning the variable DISPERSION, it is important to keep in mind the fact that only the largest controlling shareholder is included. This is a simplification of the ownership structure and might not depict the true ownership dispersion. On the other hand, this is a generalisation and all the companies in the sample were processed in the same way. Concerning SIZE, the design of the index can be questioned due to the insignificant relationship to COMPLIANCE, both in this thesis and in the study performed by Glaum *et al.* (2012). One element of the index consists of number of employees. This component could be a fair way of measuring the size of a company, but at the same time one can dispute whether the number of employees has a connection to the compliance of impairment disclosure. Regarding the variable ANALYST, the data collected from Datastream included missing numbers and might therefore not entirely represent the underlying economic reality. However, Datastream is seen as a recognised source of information and is frequently used in academic studies, for instance, by Amiraslani *et al.* (2013) and Glaum *et al.* (2012).

The comparison between our findings and the findings of the main studies is sometimes not totally applicable. This could be due to the differences in the sample construction and research design, although tendencies can be analysed in order to see trends and strengthen the individual findings. As far as we know the study performed by Amiraslani *et al.* (2013) is not published in a research journal, which could indicate a lower credibility. This is also the case with Fallström and Henrikson's (2013) study, since this is a master's thesis and therefore is not peer-reviewed.

In conclusion, the discussion above gives validity and reliability to the results of this thesis. We believe that our significant findings contribute to previous findings in the fields of goodwill impairment and mandatory disclosures. We believe that this contribution will be of interest to several parties, for instance, shareholders, investors, auditors, standard setters, and other users of financial reports.

6.2.2 Further research

This master's thesis is limited to investigating the compliance level and country-specific factors in Sweden and the United Kingdom on companies that operate in the Industry sector. Our findings indicate that there is a difference between the two countries. Since the purpose of the

implementation of the IFRS was to harmonise the accounting behaviour, the appearance of these differences is not desirable. At this moment we believe that complementing studies identifying country-specific factors are crucial for the future development and improvement of IFRS regulations. Regarding the earlier mentioned impact of the chosen variables, future studies may change, add or rework the variables in order to depict the underlying economic reality, to contribute to and complement to the existing research. For instance, one possible contribution would be to examine other variables, such as goodwill intensity or a size variable not consisting of an index. Since this thesis only consists of a comparison between two countries, extended research could involve increasing the number of countries. Another way of extending the research could be to include several industries in order to identify sector-specific findings. In addition, an amended version of IAS 36 has an effective date of January 1st 2013, this will be complemented further with a clarification that has an effective date of January 1st 2014. These two amendments imply further research is needed to investigate the effects on the impairment disclosure field.

In contrast, a way to continue the research is to use the same research questions, but in a more focused setting. For instance, this could be a case study consisting of a comparison between a Swedish company and a British company. In this more focused settings, an investigation whether the same findings can be identified could be performed.

Ultimately, if the harmonisation due to the IFRS implementation succeeds, country-specific factors should not exist. Therefore, in the long run research should focus more on the firm-specific factors especially after the implementation of the amended regulations and the potential Disclosure Framework.

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Appendix

Appendix 1 – Disclosure Scoring Sheet by Fallström and Henriksson (2013)

Item	IAS 36 requirements	Scale	Max point
1	(a) The amount of the goodwill distributed to the unit (or group of units).	0 or 1	1
2	(b) The carrying amount of intangible assets with indefinite useful lives distributed to the unit (or group of units).	0 or 1	1 [N/A]*
3	(c) The basis on which it was determined the recoverable amount of the unit (or group of units) (i.e., use value or fair value less costs to sell).	0 or 1	1
4	(d) If the recoverable amount of the unit (or group of units) is based on value in use: (i) A description of each key assumption on which management has based its projections of cash flows for the period covered by budgets or most recent forecasts. Key assumptions are those to which the recoverable amount of units (or groups of units) is more sensitive (other assumptions than long-term growth rate and the discount rate).	0 or 1	1
5	(d) If the recoverable amount of the unit (or group of units) is based on value in use: (ii) 1.A description of the approach used by management to determine the value or values assigned to each key assumption, as well as	0 or 1	1
6	(d) If the recoverable amount of the unit (or group of units) is based on value in use: (ii) 2. whether those values reflect past experience or, if they are consistent with external sources of information and, if were not, how and why they differ from past experience or external sources of	0 or 1	1

	information.		
7	(d) If the recoverable amount of the unit (or group of units) is based on value in use: (iii) The period over which management has projected cash flows or projections based on budgets approved by management and,	0 or 1	1
8	(d) If the recoverable amount of the unit (or group of units) is based on value in use: (iii) when used longer than five years for a cash-generating unit (or group of units), an explanation of the reasons that justify the longer period.	0 or 1	1
9	(d) If the recoverable amount of the unit (or group of units) is based on value in use: (iv) The growth rate used to extrapolate cash flow projections beyond the period covered by the most recent budgets or forecasts and	0 – no disclosure 0,5 – range of growth rates or a single growth rate for all CGU 1 – discount rate for each CGU	1
10	(d) If the recoverable amount of the unit (or group of units) is based on value in use: (iv) the reasons relevant if it had used a growth rate that exceeds the average long-term growth for the products, industries, or the country or countries in which the entity operates, or for the market to which the unit (or group of units) is dedicated.	0 or 1	1
11	(d) If the recoverable amount of the unit (or group of units) is based on value in use: (v) The rate or rates used to discount projected cash flows.	0 – no disclosure 0,5 – non-CGU-specific 1 – for each CGU	1
12	(e) If the recoverable amount of the unit (or group of units) is based on the fair value less costs to sell, the methodology used to determine the fair value less costs to sell (binding sales agreement, comparable transaction or discounted cash flow computations, other methodologies)	0 or 1	1
13	(e)If the fair value less costs to sell has not been determined using an observable market price for the unit	0 or 1	1

	(group of units), also disclosed the following information: (i) a description of each key assumption on which management has based its determination of fair value less costs to sell. Key assumptions are those to which the recoverable amount of units (or groups of units) is more sensitive.		
14	(e) If the fair value less costs to sell has not been determined using an observable market price for the unit (group of units), also disclosed the following information: (ii) A description of the approach used by management to determine the value (or values) assigned to each key assumption,	0 or 1	1
15	(e) If the fair value less costs to sell has not been determined using an observable market price for the unit (group of units), also disclosed the following information: (ii) whether those values reflect past experience or, if appropriate, whether they are consistent with external sources of information and, if not they were, how and why they differ from past experience or external sources of information.	0 or 1	1
16	(e) If the fair value less costs to sell has not been determined using an observable market price for the unit (group of units), also disclosed the following information: If the fair value less costs to sell is determined using projected discounted cash flows, they also reveal the following information: (iii) The period in which management has projected cash flows.	0 or 1	1
17	(e) If the fair value less costs to sell has not been determined using an observable market price for the unit (group of units), also disclosed the following information: If the fair value less costs to sell is determined using projected discounted cash flows, they also reveal the following	0 or 1	1

	information: (iv) The growth rate used to extrapolate cash flow projections.		
18	(e) If the fair value less costs to sell has not been determined using an observable market price for the unit (group of units), also disclosed the following information: If the fair value less costs to sell is determined using projected discounted cash flows, they also reveal the following information: (v) The rate or rates used to discount projected cash flows.	0 or 1	1
19	(f) if a reasonably possible change in a key assumption on which management has based its determination of the recoverable amount of the unit (or group of units), assume that the amount of the unit (or group of units) exceeds its recoverable amount: (i) the amount by which the recoverable amount of the unit (or group of units) exceeds the amount of books.	0 or 1	1
20	(f) if a reasonably possible change in a key assumption on which management has based its determination of the recoverable amount of the unit (or group of units), assume that the amount of the unit (or group of units) exceeds its recoverable amount: (ii) the value assigned to key assumptions	0 or 1	1
21	(f) if a reasonably possible change in a key assumption on which management has based its determination of the recoverable amount of the unit (or group of units), assume that the amount of the unit (or group of units) exceeds its recoverable amount: (iii) the amount by which you must change the value or values assigned to the key assumptions that, after incorporating all the recoverable value, resulting effects of that change on other variables used to measure the	0 or 1	1

	recoverable amount is the amount equal recoverable from the unit (or group of units) to its book value.		

* Not applicable due to the limitations of this thesis

Appendix 2 – The companies in our sample

#	Companies	Stock Exchange	Audit Firm
1	ADDTECH	OMX Stockholm	KPMG
2	AF AB	OMX Stockholm	Ernst&Young
3	ALFA LAVAL AB	OMX Stockholm	Ernst&Young
4	ASSA ABLOY AB	OMX Stockholm	PwC
5	B&B TOOLS AB	OMX Stockholm	KPMG
6	BEIJER ALMA AB	OMX Stockholm	PwC
7	BEIJER ELECTRONICS	OMX Stockholm	PwC
8	BTS GROUP AB	OMX Stockholm	PwC
9	CAVOTEC SA	OMX Stockholm	PwC
10	CISION AB	OMX Stockholm	Ernst&Young
11	CONCENTRIC AB	OMX Stockholm	KPMG
12	CONSILIUM AB	OMX Stockholm	PwC
13	DUROC AB	OMX Stockholm	PwC
14	FAGERHULT AB	OMX Stockholm	PwC
15	GUNNEBO AB	OMX Stockholm	Deloitte
16	INDUTRADE AB	OMX Stockholm	PwC
17	INTELLECTA AB	OMX Stockholm	PwC
18	LAGERCRANTZ	OMX Stockholm	KPMG
19	LINDAB INTER	OMX Stockholm	Ernst&Young
20	LOOMIS AB	OMX Stockholm	PwC
21	MICRONIC MYDATA AB	OMX Stockholm	KPMG
22	NCC AB	OMX Stockholm	PwC
23	NEDERMAN HOLDING AB	OMX Stockholm	KPMG
24	NOLATO AB	OMX Stockholm	KPMG
25	NOTE AB	OMX Stockholm	PwC
26	OEM-INTERNATIONAL AB	OMX Stockholm	KPMG
27	PARTNERTECH AB	OMX Stockholm	PwC
28	PEAB AB	OMX Stockholm	KPMG
29	PRICER AB	OMX Stockholm	KPMG
30	PROFFICE AB	OMX Stockholm	KPMG
31	REDERI AB TRANSATLANTIC	OMX Stockholm	PwC
32	REJLERS PUBL AB	OMX Stockholm	PwC
33	SAAB AB	OMX Stockholm	PwC
34	SCANIA AB	OMX Stockholm	Ernst&Young
35	SECURITAS AB	OMX Stockholm	PwC
36	SEMCON AB	OMX Stockholm	Deloitte
37	SKANSKA AB	OMX Stockholm	KPMG
38	SKF AB	OMX Stockholm	KPMG
39	STUDSVIK AB	OMX Stockholm	PwC
40	SVEDBERGS I DALSTORP	OMX Stockholm	Ernst&Young
41	SWECO	OMX Stockholm	PwC
42	SYSTEMAIR	OMX Stockholm	Ernst&Young

43	TRELLEBORG AB	OMX Stockholm	PwC
44	AB VOLVO	OMX Stockholm	PwC
45	ACAL PLC	London Stock Exchange	Ernst&Young
46	AGGREKO	London Stock Exchange	PwC
47	ALTITUDE PLC	London Stock Exchange	KPMG
48	ALUMASC	London Stock Exchange	KPMG
49	AMIAD	London Stock Exchange	PwC
50	ASHTEAD	London Stock Exchange	Deloitte
51	AUGEAN	London Stock Exchange	Grant Thornton
52	BABCOCK INTERNATIONAL	London Stock Exchange	PwC
53	BAE	London Stock Exchange	KPMG
54	BALFOUR	London Stock Exchange	Deloitte
55	BBAVIATION	London Stock Exchange	Deloitte
56	BEGBIES TRAYNOR	London Stock Exchange	Deloitte
57	BERENDSEN	London Stock Exchange	PwC
58	BODYCOTE	London Stock Exchange	Deloitte
59	BREEDON	London Stock Exchange	KPMG
60	CAPITA	London Stock Exchange	KPMG
61	CARILLION	London Stock Exchange	KPMG
62	CHEMRING	London Stock Exchange	Deloitte
63	CLARKSON	London Stock Exchange	PwC
64	COBHAM	London Stock Exchange	PwC
65	COHORT	London Stock Exchange	KPMG
66	COMMUNISIS	London Stock Exchange	Ernst&Young
67	CRH	London Stock Exchange	Ernst&Young
68	DIALIGHT PLC	London Stock Exchange	KPMG
69	DOMINO PRINTING	London Stock Exchange	Deloitte
70	DS SMITH	London Stock Exchange	Deloitte
71	E2V TECHNOLOGIES	London Stock Exchange	Ernst&Young
72	ELECO	London Stock Exchange	Grant Thornton
73	ELEKTRON TECH	London Stock Exchange	Deloitte
74	HARVEY NASH	London Stock Exchange	PwC
75	HENRY BOOT	London Stock Exchange	PwC
76	IMI PLC	London Stock Exchange	Ernst&Young
77	INTERQUEST	London Stock Exchange	Deloitte
78	INTERSERVE	London Stock Exchange	Deloitte
79	INTERTEK GROUP	London Stock Exchange	KPMG
80	ISG PLC	London Stock Exchange	Deloitte
81	JOHN MENZIES PLC	London Stock Exchange	Ernst&Young
82	JOHNSON SERVICE GRP	London Stock Exchange	PwC
83	JOURNEY GROUP PLC	London Stock Exchange	Grant Thornton
84	KELLER GROUP PLC	London Stock Exchange	KPMG
85	KIER GROUP	London Stock Exchange	KPMG
86	LAVENDON GROUP PLC	London Stock Exchange	PwC
87	LONDON SECURITY PLC	London Stock Exchange	KPMG

88	MAINTEL HOLDINGS PLC	London Stock Exchange	BDO
89	MANAGEMENT CON	London Stock Exchange	Deloitte
90	MARSHALL PLC	London Stock Exchange	KPMG
91	MELROSE INDUSTRIES	London Stock Exchange	Deloitte
92	MITIE GROUP	London Stock Exchange	Deloitte
93	MICHEL MERSH	London Stock Exchange	Nexia Smith & Williamson
94	MOLINS PLC	London Stock Exchange	KPMG
95	MORGAN ADVANCED	London Stock Exchange	KPMG
96	MORGAN SINDALL	London Stock Exchange	Deloitte
97	NATURE GROUP PLC	London Stock Exchange	Deloitte
98	NORMAN BROADBENT PLC	London Stock Exchange	Reeves & Co LLP
99	NORTHBRIDGE INDL SVC	London Stock Exchange	BDO
100	OFFICE2OFFICE PLC	London Stock Exchange	PwC
101	PAN EUROPEAN TERMINALS	London Stock Exchange	Grant Thornton
102	PAYPOINT PLC	London Stock Exchange	Deloitte
103	PETARDS PLC	London Stock Exchange	KPMG
104	PRESSURE TECHNO	London Stock Exchange	Grant Thornton
105	QINETIQ GROUP	London Stock Exchange	KPMG
106	RESTORE PLC	London Stock Exchange	Baker Tilly UK Audit LLP
107	REXAM PLC	London Stock Exchange	PwC
108	RPS GROUP PLC	London Stock Exchange	Deloitte
109	SENIOR PLC	London Stock Exchange	Deloitte
110	SMITHS PLC	London Stock Exchange	PwC
111	SPEEDY HIRE	London Stock Exchange	KPMG
112	SPIRAX-SARCO ENGIN.	London Stock Exchange	KPMG
113	STRAIGHT PLC	London Stock Exchange	Ernst&Young
114	TCLARKE	London Stock Exchange	PwC
115	ULTRA PLC	London Stock Exchange	Deloitte
116	UNIVERSE GROUP	London Stock Exchange	BDO
117	VESUVIUS PLC	London Stock Exchange	KPMG
118	VITEC GROUP PLC	London Stock Exchange	KPMG
119	WEIR	London Stock Exchange	Ernst&Young