



UNIVERSITY OF GOTHENBURG  
SCHOOL OF BUSINESS, ECONOMICS AND LAW

# Enforcement

*- Can it explain the difference in the development of goodwill within the European Union?*

**University of Gothenburg**  
**School of Business, Economics and Law**  
**Degree Project in Business Administration for**  
**Master of Science in Business and Economics**  
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# Preface

This Master thesis was written during the spring of 2014 within the degree project in Business Administration for Master of Science in Business and Economics at the University of Gothenburg School of Business, Economic and Law.

We want to thank our tutors Jan Marton and Emmeli Runesson for the help and guidance that we received during the time of the thesis. We also want to thank the opponent groups for their thoughts and opinions all through the thesis.

Lastly, we want to thank each other for a successful partnership and for making the last semester in school memorable.

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# Abstract

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**Title:** Enforcement – *can it explain the difference in the development of goodwill within the European Union?*

**Background and Problem discussion:** In 2005 IFRS became mandatory to follow in the EU. All countries within the EU are forced to report under the standard-setting body called IASB. By making IFRS mandatory, one single framework is provided to the member countries. Because differences in the development of goodwill have been observed, this thesis will try to reveal if enforcement can explain the differences in the development of goodwill among the countries within the EU.

**Purpose:** The purpose is to find out if enforcement in fact can explain the difference in the development of goodwill, as the ratio goodwill as a part of total assets, within the EU. Since previous research has touched the subject, we want to examine if we can confirm that enforcement, on a country level, plays a role in the development of goodwill.

**Delimitations:** The study does not include countries outside of the EU and is limited to companies within the EU that follow IFRS and has goodwill in their financial statements. We have decided to exclude following countries; Croatia, Bulgaria and Romania, since they have not been members of the EU during the entire test period, 2005-2012. We do not consider data before 2005, when IFRS became mandatory in the EU, nor do we test data after 2012.

**Research design:** The study is designed to discover if differences in the development of goodwill is related to enforcement between 2005 and 2012 and will include goodwill as a part of total assets among the chosen years and countries. To accomplish this, data from a database is collected and statistically tested through multiple OLS regressions. This makes the study quantitative.

**Results and Conclusions:** By examining enforcement, one of nine regressions proves that it can explain the existing differences in the development of goodwill among countries within the EU. In the outcome of the remaining eight tests, there is no significant evidence that enforcement in fact can explain the development of goodwill. Also, we have been able to confirm that there is a difference between the development of *Goodwill/Total Assets* and *Goodwill/Intangible Assets*. The intangible assets has increased more in relation to goodwill, than what total assets have, which is an interesting finding and will be suggested for further research.

**Suggestions for further research:** We suggest a similar study but with other proxies of enforcement. Our thesis considers enforcement on a country level, which opens up for two different directions. One suggestion is a study that examines enforcement on a firm level. The other suggestion is to examine the development of enforcement within a country, in order to exclude underlying country factors and capture the essence. Due to our findings regarding the fact that intangible assets has increased more than total assets, in relation to goodwill, it would be interesting to conduct a study that examines IFRS 3.

**Keywords:** goodwill, enforcement, IFRS, monitoring, compliance and judgment.

# Abbreviations

<b>CESR</b>	Committee of European Securities Regulators
<b>ESMA</b>	European Securities and Markets Authority
<b>EU</b>	European Union
<b>IAS</b>	International Accounting Standard
<b>IASB</b>	International Accounting Standards Board
<b>IFRS</b>	International Financial Reporting Standard
<b>US</b>	United States

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# 1. Introduction

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*In the first chapter, the background is introduced. It is followed by the problem discussion, research question and the purpose. Finally, the contribution, delimitations and the disposition are presented.*

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## 1.1 Background

In 2005 it became mandatory to follow International Financial Reporting Standards (IFRS) in the European Union (EU). All countries within the EU are forced to report under the standard-setting body called International Accounting Standard Board (IASB). The aim with IFRS is that the adoption of IFRS generates benefits such as: “to eliminate barriers to cross border investing; to increase the reliability, transparency and comparability of financial reports; to increase market efficiency; and to decrease the cost of capital” (Brown 2011, p. 272).

A widely-held view is that the IASB standards are principles-based. They consist of clear statements without detailed guidance of the implementation which provides room for professional judgments and interpretations of the qualitative principles (Marton, Lumsden, Lundqvist & Pettersson 2013). The article by Brown (2011) states that adoption of international accounting standards by countries will not automatically lead to the same outcomes for all companies. This means that the standards are differently applied within the countries in the EU, which leads to a great responsibility for the supervision of the implementation to ensure that the objectives of the standards are fulfilled. In EU, the monitoring system is issued on a national basis, where each country’s supervisory controls its own companies’ implementation of IFRS. The European Securities and Markets Authority (ESMA), former Committee of European Securities Regulators (CESR), represent the general surveillance of all the national authorities in the EU. (ESMA 2014b)

Regarding the question how to manage goodwill, it has been found that there in fact is a difference between how countries handle and report goodwill. For example, a difference has been stated between Sweden and the United States (US), in the ratio goodwill as a part of total assets (Catasus, Carrington, Eklöv-Alander, Johed, Marton, Lundqvist & Runesson 2014). Further, Markovic and Senay Oguz (2011), show that there are differences regarding management of goodwill, between countries within the EU, as well as between the EU and the US. By making IFRS mandatory in the EU, one single framework is provided to the member countries. Despite this, there is an observed difference in the development of goodwill, making the quality of the financial reports unequal. Markovic and Senay Oguz (2011) consider this being a consequence of a distinction in the quality of enforcement. Therefore, it is interesting to single out enforcement as a factor to study, whether it can explain the difference in the development of goodwill, among countries within the EU.

## 1.2 Problem discussion and purpose

Due to previous research, it has been shown that enforcement is a factor to be reckoned with when studying how financial reports correspond with IFRS. The definition of enforcement that will permeate this thesis complies with the definition stated by Brown, Preiato and Tarca (2014): “accounting enforcement is the activities undertaken by independent bodies (monitoring, reviewing, educating and sanctioning) to promote firms’ compliance with accounting standards in their statutory financial statements”.

As mentioned earlier, it is stated that there are differences in the ratio goodwill as a part of total assets among countries. Because the standards are principles-based this provides room

for judgments, and the outcome of goodwill accounting will differ. Since judgment is subjective, it provides an opportunity for managers to interpret the standards in a beneficial manner and hence affecting the development of goodwill. By inviting subjectivity into the regulation, a contradiction arises between subjectivity and comparability, unless there is a functional supervision.

Besides the same accounting standards, other factors are also relevant to accounting quality. Soderstrom and Sun (2007) has found that cross-country differences in accounting quality will remain after the IFRS adoption until all institutional differences are removed. Accounting quality is thus determined by countries institutional systems and firm's incentives for financial reporting (Ball, Robin & Shuang Wu 2003). Since the regulation is principles-based, Catusus et al. (2014) claim that it is likely that monitoring is required in order to handle the judgments. This, in combination with the findings of Cai, Rahman and Courtenay (2008), that differences in local enforcement among countries inhibits an improvement of the overall accounting quality within the EU, makes the enforcement relevant.

Brown (2011) indicates that the differences in benefits achieved by adopting IFRS can, among other things, depend on both the nature of the standards used before the change to IFRS, and the degree of compliance monitoring and enforcement. In accordance with this, Pope and McLeay (2011) mention that there is indirect evidence on compliance and enforcement being uneven, among the countries that have implemented IFRS, which is associated with economic incentives.

With regard to IFRS, proxies are unable to fully capture the real differences in enforcement across countries (Pope & McLeay 2011). Previous, there have not been measures of the effectiveness of enforcement mechanisms in different countries, but in 2014, Brown, Preiato and Tarca created an index that can be used as a broad measure of country differences in enforcement of accounting standards. Despite the instability and the limitations in the index, they considered it as a useful key for ranking the enforcement between countries, which is required for this thesis. To ensure that the measurement of enforcement is in accordance with the reality, two additional indexes in form of earnings management and corruption perception are tested for as well. Since earnings management can be used to affect the financial accounting, preparers will have incentives to affect the accounting of goodwill (Garcia Osma & Pope 2011). Also, since corruption can be assumed to occur on a lower level in a more open and accessible society, this can be used as a broad measure of transparency (Leuz 2010) (Ball et al. 2003).

The purpose is to find out if enforcement in fact can explain the difference in the development of goodwill, as the ratio goodwill as a part of total assets, within the EU. Since previous research has touched upon the subject, we want to go deeper and see if we can confirm that enforcement, on a country level, plays a role in the development of goodwill.

Given that there are differences in enforcement, it is interesting to verify if enforcement in fact can explain the difference in how to treat goodwill, which leads on to the research question; *can enforcement explain the difference in the development of goodwill within the EU?*

### **1.3 Contribution**

Previous research has found that there is a difference in the reporting of goodwill between the US and Sweden but also within the EU (Markovic & Senay Oguz 2011, Catusus et al. 2014). Due to this, our thesis will examine the importance of enforcement in the establishment of



financial reports. Our contribution is to evaluate whether enforcement is a factor that may cause different outcomes in the reporting of goodwill for users of the same framework, or not. Further, a discussion of underlying reasons that may cause the differences will be held.

## 1.4 Delimitations

The study does not include countries outside of the EU and is limited to companies within the EU that follow IFRS and has goodwill in their financial statements. The following countries are members in the European Union: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom. We have decided to exclude the following countries; Croatia, Bulgaria and Romania, since they have not been members of the EU during the entire test period, 2005-2012. (European Union 2014)

We do not consider data before IFRS became mandatory in the EU in 2005. Nor do we test data after 2012, when all information containing companies for 2013 is not yet published. The time period therefore runs between 2005 and 2012.

## 1.5 Outline

Introduction	<ul style="list-style-type: none"> <li>• In the first chapter the background is introduced. It is followed by the problem discussion, research question and the purpose. Finally, the contribution, delimitations and the disposition are presented.</li> </ul>
Institutional background	<ul style="list-style-type: none"> <li>• In the second chapter, the institutional background is introduced. The accounting standards regarding the management of goodwill and the organization within the EU concerning enforcement are presented.</li> </ul>
Hypothesis development	<ul style="list-style-type: none"> <li>• The third chapter describes the previous research concerning goodwill and enforcement. Thereafter, the hypothesis of the thesis is presented.</li> </ul>
Research design	<ul style="list-style-type: none"> <li>• The fourth chapter describes the method that presents the approach of the collection of data, as well as control of data, processing of data and the statistical testing. Further, the variables are presented.</li> </ul>
Empirical results	<ul style="list-style-type: none"> <li>• In the fifth chapter, the empirical results are presented. First, a description of the data is introduced and thereafter, the outcome of the statistical testing is presented.</li> </ul>
Analysis	<ul style="list-style-type: none"> <li>• In the sixth chapter, the hypothesis development and the empirical results are analyzed. The chapter is divided into three sections, starting with the development of goodwill, followed by a discussion regarding the hypothesis and ends with a further analysis.</li> </ul>
Conclusion	<ul style="list-style-type: none"> <li>• In the seventh and final chapter, conclusions are stated and the research question is answered. Also, this chapter contains suggestions for further research.</li> </ul>

## 2. Institutional background

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*In the second chapter, the institutional background is introduced. The accounting standards regarding the management of goodwill and the organization within the EU concerning enforcement are presented.*

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### 2.1 Accounting standards

Before 2005, the financial accounting was regulated on a national basis. Several of the countries' frameworks were rules-based and practiced amortization of goodwill. This regulation was easy to apply but did not always reflect the real economic situation of the company. The implementation of IFRS provided a harmonization of the accounting regulation in the EU. The new standards issued by IASB are principles-based and require assessments, in order to capture the underlying economic reality. This promotes the comparability of the financial accounting, since the management makes judgments of their own company's financial situation (Catasus et al. 2014). The difficulty with this type of regulation is that it depends on the fact that neutral assessments are required. Sometimes, there can be incentives for the management to make subjective judgments, which damage the neutrality. In order to be able to handle this principles-based regulation, Catasus et al. (2014) state that it is likely that monitoring is required.

Since 2005, IFRS is the regulatory framework for all countries within the EU. IASB has developed three standards that define and manage goodwill: *IFRS 3 Business combinations*, *International Accounting Standard (IAS) 36 Impairments* and *IAS 38 Intangible assets and goodwill*. In addition, a conceptual framework is available defining an asset as a resource that is controlled by an entity as a result of past events from which future economic benefits are expected to flow to the entity (Conceptual framework 49a). Since goodwill is an intangible asset, the further definition is found in IAS 38.8 as an identified non-monetary asset that is not physical in nature. Goodwill can be acquired in two ways: through internally generated goodwill and through business combination, but only the last method is allowed according to IAS 38.48. The amount of goodwill is measured as the excess from the cost of the acquisition over the net of the acquisition-date of the identified and acquired assets and liabilities (IFRS 3.32). After the acquisition, and in order to be able to make an impairment test, the goodwill shall be allocated to the cash-generating unit that will expect benefit from the acquisition (IAS 36.80).

Through the introduction of IFRS 3 in 2004, amortization of goodwill ceased and an, at least annually, an impairment test shall be done. This is made by comparing the carrying amount of the cash-generating unit including goodwill with its recoverable amount, which is the higher of the net selling price and the value in use (IAS 36.90) (Deloitte 2014). If the carrying amount exceeds the recoverable amount, an impairment loss is recognized. Further, an impairment loss of goodwill can never be reversed (IAS 36.124).

### 2.2 European authority

ESMA is a part of the European System of Financial Supervision which is a system that consists of the European Systemic Risk Board and three other authorities: ESMA, the European Banking Authority, and the European Insurance and Occupational Pensions Authority (ESMA 2014c). Since 2011, ESMA is an independent authority in EU with a mission to harmonize the monitoring in EU (ESMA 2014b). ESMA works with the legislative system for securities, which leads to more effective regulation and supervision and a better protection for the investors. They have developed a four level approach, where one of the

levels aims to streamline the supervisory practices regarding financial supervision within EU through guidelines and recommendations. ESMA can, on its own initiative or at request from other instances, for example, the European Parliament, perform an investigation and issue a recommendation to the respective national authority. The policy decisions of ESMA are handled by the heads of each national authority in the 28 countries within EU that, together with a couple of observers, form ESMA's board of supervisors (ESMA 2014a).

Though the legal responsibility for enforcement still remains on a national level, the CESR, that was replaced by ESMA in 2011, has the responsibility to develop and implement a common approach to the enforcement of IFRS (European Parliament 2008) (ESMA 2014b). To be able to ensure effective enforcement of compliance with IFRS, the CESR issued two standards with necessary criteria for the national regulators to follow.

The first standard; *Standard No. 1 on Financial Information: Enforcement of Standards on Financial Information in Europe* contains basic principles and minimum criteria for how the enforcement of IFRS is supposed to be handled by each member of the EU. It states that competent, independent authorities should perform enforcement reviews. If the authority reveals material that is incorrect and does not comply with the framework, they are "required to take appropriate actions in a timely and consistent fashion" (Pope & McLeay 2011, p 16). The second standard; *Standard No. 2 on Financial Information: Coordination of Enforcement Activities*, established a database where the national enforcers can find guidance through cases and decisions made within the enforcement standards and also conduct a dialogue between others. This database is not available to the public; only the national authorities can access it. The second standard is not properly followed by the members, and the CESR finds that only 31 % applies all its principles (CESR 2009).

## 3. Hypothesis development

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*The third chapter describes the previous research concerning goodwill and enforcement. Thereafter, the hypothesis of the thesis is presented.*

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### 3.1 Previous research

When adopting IFRS, countries can gain benefits, mostly regarding equity markets (Brown 2011). He also states that by eliminating barriers between countries and following the same regulation, a more reliable, transparent and comparable situation can be achieved for the financial reports. In turn, this benefits investors in facilitating acts across countries, which increases the market efficiency and reduces the cost of capital. Even though these are benefits that possibly can be achieved by adopting IFRS unlike local regulations, Brown (2011) declares that there are differences in the benefits among countries. He also describes that the differences of gaining benefits for example depend on the nature of the national standards before adopting IFRS, and the country's degree of compliance monitoring and enforcement.

Brown and Clinch (1998) reflect on earlier research that the accounting standards, applied before IFRS differs among countries because of differences in economic and social forces that have imprinted the country's domestic standards. The standards issued by IASB are strongly influenced by the English legal origin traditions (Leuz 2010). In the article by LaPorta, Lopez-de-Silanes, Shleifer and Vishny (1998), it is stated that common law is English in origin and civil law is derived from Roman law. Within the civil law tradition, there are three major families that modern laws originate from: French, German and Scandinavian. Laws vary among countries because of differences in legal origin. When countries that do not originate from the same tradition adopt IFRS it will automatically lead to different outcomes (Brown 2011).

Another explanatory factor for differences in benefits gained from adopting IFRS is, according to Brown (2011) the degree of compliance monitoring and enforcement. The article by Pope and McLeay (2011) mentions that results of adopting IFRS and the implementation are not equal among countries within Europe, and that it depends on the preparer of the financial statements incentives and the effectiveness of local enforcement. EU's proposal to harmonize financial reporting with IFRS was developed normatively, based on principles that are well argued, suggesting potential economic benefits that can arise as a result of the adoption. Further, Pope and McLeay (2011) say that to be able to share benefits as, for example, a positive capital market, the institutional settings in each respective country have a significant role. The evidence that is stated in the article is that results are far from uniform among the EU due to preparer incentives and different enforcement structures in the member states. They also mention that regulators have expressed that the idea with harmonization of financial reporting based on IFRS will lead to a reduction in cost of capital and hence wider economic effects. Pope and McLeay also mention that there are reasons to believe that the benefits will only occur if implementation and enforcement are of high quality.

Further, Pope and McLeay (2011) state that "the degree of compliance with IFRS depend on preparers' incentives, which in part depend on the quality of enforcement" (p. 249). They present that studies have proved unequal compliance with IFRS in Europe. According to Leuz (2010), principles-based standards give companies more discretion which can give managers the opportunity to convey private information to the markets in a more affordable matter. In turn, the discretion can be misused by managers to pursue hidden reporting motives.

Brown (2011) mention in his article that a lot of studies argue for higher quality of the financial statements as a positive consequence that follows when adopting IFRS. Pope and McLeay (2011), on the other hand, say that evidence has shown that IFRS does not in fact lead to automatic improvements in accounting quality although it appears to have contributed to a higher degree of comparability. Essential keys of determinants of accounting quality are the incentives and constraints facing preparers, and the other way around, incentives depend on both firm-level and country-level quality of enforcement and incentives. As well, they mention a significant view from the paper by Daske, Hail, Leuz and Verdi's (2008), regarding their results that the estimated effects of IFRS on market outcomes are significant only in countries where reporting and enforcement are high.

Ball et al. (2003) study the collision of standards and incentives, in an article where they find companies in East Asia to have strong incentives to manipulate and thus report smoothed earnings. They state that quality is what a country's institutional environment demands. By accepting their finding about earnings management, a parallel can be drawn to accounting of goodwill. If companies are willing to smooth their results for better appearance for investors and on the market, there may also be an incentive to manipulate accounting of goodwill; hence enforcement plays a critical role.

### **3.2 The hypothesis**

Considering the fact that differences in local enforcement among countries within the EU hamper improvements in accounting quality (Cai et al. 2008), a similarity can be drawn to the development of goodwill. Due to different local enforcement and, as mentioned earlier, firms' incentives, a study will be carried out to try to answer if the dissimilarities in local enforcement can be the relevant factor which generates differences in the development of goodwill. This leads us to the following hypothesis.

**H<sub>1</sub>:** *Enforcement can explain the difference in the development of goodwill within the EU*

## 4. Research design

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*The fourth chapter describes the method that presents the approach of the collection of data, as well as control of data, processing of data and the statistical testing. Further, the variables are presented.*

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### 4.1 Choice of method

This thesis aims to answer the underlying question about whether enforcement can explain the difference in development of goodwill accounting within countries who apply the same framework. The main thought is that what causes the difference between the countries depends on the extent of the national supervision.

Hence, the starting point will be in enforcement but also other variables matters. The study is designed to discover if differences in development of goodwill are related to enforcement between 2005 and 2012 and will include goodwill as a part of total assets among the chosen years and countries. In addition, robustness tests will be carried out with the dependent variables goodwill, as a part of intangible assets among the chosen years and countries, as well as impairments of goodwill as a part of total assets before impairments are made. To accomplish this, data from a database is required. This makes the study quantitative.

### 4.2 Collection of information

In this thesis literature in the form of articles, databases, research reports and printed material has been used. To find relevant and informative articles and literature, the databases available at Gothenburg University Library has been a great source. The most useful databases have been Datastream, Web of Science and Harvard Business Source Premier. Some of the keywords used are goodwill, enforcement, IFRS, monitoring, compliance and judgment.

Since data for this study must be collected from a large, unbiased sample, when making generalizations about a large population, Datastream is used. The data is collected from period 2005-2012, which makes 2005 the base year. The data collected was for companies from all countries within the EU except for the three countries that were not members in 2005, Bulgaria, Croatia and Romania. Also, in the variable *Market Capitalization*, exchange rates have been adjusted to Euro through a function in Datastream.

### 4.3 Control of data

In the thesis we have received data by using *Goodwill/Cost in Excess of Assets Purchased, Net* in relation to *Total Assets*. We have compared the data with financial statements to make sure that the data is accurate and useful in our testing. *Goodwill/Cost in Excess of Assets Purchased, Net* is equal to *Total Goodwill* and this is verified by controlling approximately 20 different financial statements from the companies in our data, regarding the years 2005-2012. Therefore, *Total Goodwill* will hereby be referred to as *Goodwill*.

### 4.4 Processing data

By processing the data, 18 636 companies were retrieved. When the data was sorted, following criteria have been taken into consideration; if companies follow IFRS, if companies appear multiple times, companies without goodwill and companies who have not reported any goodwill. The remaining sample consisted of 2 285 companies over a time period of eight years, which resulted in 18 280 observations. Also, by adjusting for outliers, identified by three standard errors from mean (Anderson, Sweeney & Williams 2011), several observations

were excluded. Furthermore, some observations were not included in the study due to values larger than 1 in the dependent variables *Goodwill/Total Assets*, *Goodwill/Intangible Assets* and *Impairments of Goodwill*. The final population that will be tested for in the regression models consists of 13 738 observations.

In the data, error is assumed not to have an impact at all and therefore, it is ignored in the study. Since the thesis consists of all companies in the EU that fulfills our criteria, we have a large population which enhances the validity.

#### 4.5 Statistical testing

To be able to examine if enforcement can explain differences in the development of goodwill within the EU, statistical testing must be done. In this thesis, a multiple OLS regression model, with clusters by firm, is used to test the hypothesis. By using Stata, the multiple regression models were formed in order to analyze and process the collected data. To ensure that multicollinearity does not affect the regressions, the correlations between the variables are tested.

Through robustness testing, two alternative dependent variables have been applied in the regression to see if the same results are obtained. This to be able to either confirm our findings, or to question them.

#### 4.6 Variables

The concept of enforcement comprises many different factors and therefore, the level of enforcement is difficult to verify because there is no accurate measurement to access. Hence, proxies are used and tested in order to ensure a valid analysis of the enforcement variables. Control variables are used to exclude effects from underlying factors that can affect the development of goodwill. The proxies of enforcement and the traditions are presented in a table in the Appendix.

##### 4.6.1 Dependent variables

The dependent variable is the one variable that is being tested against the other variables. The main dependent variable is *Goodwill/Total Assets*. Also, two other dependent variables are tested for, namely; *Goodwill/Intangible Assets* and *Impairments of Goodwill*. These are tested in order to present an additional dimension of the development of goodwill.

##### 4.6.2 Enforcement variables

###### ***Index of enforcement***

Brown et al. (2014) have created an index of countries' differences in enforcement of accounting standards including 51 countries, where 22 of them are members of the EU. When making the index of enforcement, Brown et al. (2014) focus on the financial reporting enforcement which complies with the definition of enforcement used in this thesis. The selection of items included in the index is those who are likely to affect the investors' decisions through the quality of the available information on the capital market. The factors that the index of enforcement are based on are if there is a body that monitors financial reporting, if the body has power to set accounting standards, if the body reviews and provides a report, if enforcement actions are taken with regard to the financial statements and lastly the level of resourcing. To ensure the relevance of the selected items, eleven interviews with security market regulators and audit partners were held and adjustments according to their objections were made. Each factor provides a ranking score and the total score for each

country, between 2 and 24, will be used as a measure of enforcement. Since the ranking was made for 2002, 2005 and 2008, the average from the years 2005 and 2008 was used as proxy in order to adjust the index to this thesis with the testing period 2005-2012.

### ***Earnings Management***

Leuz et al. (2003) have documented systematic differences in earnings management between the years 1990-1999, with an update from Leuz (2010) covering the years 1996-2005. Their definition of earnings management is “the alteration of firms’ reported economic performance by insiders to either mislead some stakeholders or to influence contractual outcomes” (Leuz et al. 2003, p. 506). One measure of earnings management that Leuz et al. (2003) use is “smoothing” the results, which is done to reduce the variability of reported earnings. Garcia Osma and Pope (2011) have created a similar index as Leuz et al., with more updated numbers covering the years 2004-2008, between 30 countries, whereof 14 of them are members of the EU. Since earnings management can be used to affect the financial accounting, an assumption is made that preparers will also have incentives to affect the accounting of goodwill. The ranking is from 1-30, where a higher score implies less earnings management. The level of earnings management in each country shows which protection the investors have from insiders’ incentives to manage the result of private control benefits. Therefore, the comparison of earnings management and investor protection that Garcia Osma and Pope (2011) have created with numbers from 2004-2008 can be used as a proxy for enforcement in the thesis.

### ***Corruption Perception Index***

Transparency International (2014) has made a ranking, including 177 countries, called Corruption Perception Index (CPI) in order to capture perceptions from “those in a position to offer assessments of public sector corruption” in each country. The scale is 0-100, and the higher the score, the more the country is perceived as clean. Transparency International (2014) defines corruption as activities that intentionally are illegal and that only emerge through investigations. Therefore, CPI can be used as a broad measure of transparency, since corruption can be assumed to occur on a lower level in a more open and accessible society. In the EU, each national authority has the task to promote market confidence and protect investors (CESR 2010). This will be achieved by encouraging transparency in the financial information that is relevant to investors’ decisions. With the perception of the corruption measured on a country level, we assume that it permeates the national authority and its mission, which in turn affects the transparency. Hence, the CPI is a relevant proxy since it reflects countries’ transparency and investor protection. The relation between a high level of enforcement and transparency is supported by both Leuz (2010) and Ball et al. (2003); therefore the CPI is used as a measurement of enforcement in the thesis.

#### ***4.6.3 Control variables***

In order to exclude spurious relationships between the variables in the regression, control variables are included in the model. This to be able to ensure that the observed correlation between two variables consists of an accurate connection and is not in fact caused by a third variable.

### ***Market Capitalization***

A control variable that captures the market value of the company and indicates its economic situation, is market capitalization. According to studies made by Churyk (2005) there is, when the market capitalization declines, an increase in the impairments of goodwill. Further, Markovic and Senay Oguz (2011) found the same negative correlation between market



capitalization and impairments of goodwill. Because of this connection it is necessary to include market capitalization as one of the control variables.

### ***Debt-to-Equity ratio***

Since market capitalization only captures the equity value of a company, it is necessary to include another control variable that capture companies with different capital structure, such as companies in debt. This can be achieved by adding debt-to-equity ratio as a control variable. If companies have high debt levels, they may have fewer tendencies to make impairments of goodwill, since this affects the equity ratio. Impairments of goodwill decrease the result and the equity which thereby leads to a lower equity ratio.

### ***Price-to-Book ratio***

According to IAS 36, an impairment of goodwill is required when the carrying amount is higher than the recoverable amount. This can be captured by using the price-to-book ratio as a control variable since it is the relationship between market value and book value. If the price-to-book ratio is less than 1, an impairment loss shall be recognized.

### ***Return on Equity***

Return on equity is profit in relation to shareholder's equity. It is a measure of how expensive it is for the company to create profit and is therefore a measurement of profitability. It is important to use a control variable as return on equity in order to control for incentives that can arise when companies are profitable. According to an interview with Ingblad in the thesis by Bylander and Ottosson (2010), incentives to make impairments of goodwill can arise when the company has a high profit that management wants to reduce. When achieving a high result, shareholders want dividends and management may try to reduce the result to keep the money within the company. Hence, impairments of goodwill are made to reduce the distributable equity.

### ***Year***

The years that will be included in the thesis are 2005-2012. The development of goodwill will vary among the years but it has nothing to do with enforcement. By using year as a dummy variable, the regression is used to acknowledge the difference in goodwill, more specifically, the development of goodwill over the years.

### ***Industry***

The development of goodwill will likely vary among industries, more specifically; among supersectors. In the thesis, supersector is used as a category of industry but will be referred to as industry. By having industry as a dummy variable it is possible to distinguish the impact on the dependent variable that the control variable has. Some industries may show significant effects, which with further analysis can reveal evidence concerning different developments in goodwill among different industries.

### ***Countries***

Since the three proxies of enforcement are based on a country level, countries must be involved in the regression as a control variable, in order to ensure that there is no effect from a third variable. By using countries as a dummy variable it is possible to control that the impact on the dependent variable that the control variable has, is not due to the countries.

### ***Traditions***

According to Brown (2011), countries that adopt IFRS and do not originate from the same tradition will automatically get different outcomes. Thus, accounting traditions are used as a

control variable. Within EU there are, according to La Porta et al. (1998), four original accounting traditions: one equals origin in English common law, the second is the origin in the French commercial code, the third is the origin in the German commercial code and the fourth equals the origin in the Scandinavian civil law. Leuz (2010) mention that legal origin may act as a summary measure for a country's approach to a number of regulatory issues and this could hence have significant explanatory power in regressions involving country variables. In this thesis we use an index from Leuz (2010) from which the countries included are categorized according to which tradition they belong, and are therefore a part of the regression as a dummy variable.

#### 4.6.4 Outliers

When sorting for outliers there are different approaches. By considering the sample, an assortment of the data is crucial. This to make sure that those extreme values of observed variables do not distort the estimates of regression coefficients nor will they be misleading. In Stata there are different ways to provide for outliers and a small discussion about two commands will be mentioned here.

The first one, "extremes", can be used to present the values of the existing outliers. By identifying those to be a value that are greater than  $\pm 3$  standard deviations from mean, one can manually remove the outliers, based on an assessment drawn from an empirical rule (Anderson, Sweeney & Williams 2011). The other approach, "winsor", is the transformation of statistics; by limiting extreme values in the statistical data to reduce the effect of outliers. Rather than dropping outlying observations, "winsor" replaces the extreme values of a variable with the values at certain percentiles.

If outliers are not excluded, it can distort the estimates of regression coefficients. Regarding the independent variable, *Market Capitalization*, the natural logarithm is used to correct for outliers and thereby *Market Capitalization* will be normal distributed.

To obtain an accurate population, it is of great importance to remove or replace the outliers. A disadvantage with "winsor" is that the researcher assumes that outliers lie only at the extremes of the variables' distribution. Therefore, "extremes" are used in our study as well as the natural logarithm for the independent variable *Market Capitalization*.

#### 4.6.5 Variable Summary

Table 1: Variable summary

Variable	Name	Abbreviation	In model	
Dependent	Development of Goodwill	Goodwill/Total Assets	gt	Goodwill/Total Assets
Dependent		Goodwill/Intangible Assets	gi	Goodwill/Intangible Assets
Dependent		Impairments of Goodwill	imp	Impairments of Goodwill/(Total Assets+Impairments of Goodwill)
Independent	Enforcement	Index of Enforcement	ioe	Index of Enforcement
Independent		Earnings Management	em	Earnings Management
Independent		Corruption Perception Index	cpi	Corruption Perception Index
Independent/control	Price-to-Book Ratio	pb	Share Price/Book Value per share.	
Independent/control	Market Capitalization	mc	Market Capitalization	
Independent/control	Debt-to-Equity Ratio	de	Long Term Debt/Common Equity	
Independent/control	Return on Equity	re	Net Income/Last year's Common Equity	
Independent/dummy	Year		2005-2012	
Independent/dummy	Industry		Cluster of Industry, supersector	
Independent/dummy	Country		Country	
Independent/dummy	Tradition		Accounting Tradition	

## 5. Empirical results

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*In the fifth chapter, the empirical results are presented. First, a description of the data is introduced and thereafter, the outcome of the statistical testing is presented.*

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### 5.1 Description of the data

Since all companies that follow IFRS have not reported goodwill, these are excluded from the sample in order for it only to contain observations with recognized goodwill. This action is taken due to the fact that companies without any reported goodwill will not contribute to the study.

From the sample, the development of goodwill over the years 2005-2012 will be measured as *Goodwill/Total Assets*, *Goodwill/Intangible Assets* and *Impairments of Goodwill*. An average value of the development of goodwill within EU over the years, is shown in table 2.

Table 2: The development of goodwill

year	gt	gi	imp
2005	12,67%	70,19%	1,10%
2006	12,99%	69,45%	1,84%
2007	13,75%	69,36%	0,85%
2008	14,00%	67,95%	1,46%
2009	14,50%	67,55%	1,27%
2010	14,48%	67,31%	1,20%
2011	14,31%	66,39%	1,83%
2012	14,46%	65,51%	0,74%

The development of goodwill differs between the two measures *Goodwill/Total Assets* and *Goodwill/Intangible Assets*. Goodwill as a part of total assets increases during the years 2005-2009, followed by three years of a relatively small fluctuation. Goodwill as a part of intangible assets on the other hand, decreases during the whole period. *Impairments of Goodwill* has fluctuated among the years 2005-2012.

### 5.1.1 Descriptive statistics

In table 3, descriptive data of the variables used in the regressions are presented.

Table 3: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
gt	12 056	0,1396	0,1526	1,64E-07	0,9654
gi	12 056	0,6797	0,2843	0,0002	1
imp	1 653	0,0132	0,0461	0	0,6958
ioe	13 134	41,3488	10,3869	23,25	56,5
em	12 215	12,9536	7,5009	6,25	25,25
cpi	13 738	70,3752	14,8466	40	91
pb	13 398	2,2784	8,5788	0	496,32
de	13 668	79,9904	206,4306	0	4 885,39
re	13 441	7,1703	28,7456	-297,33	308,87
mc <sup>1</sup>	13 489	12,3600	2,1734	5,4027	17,2318

<sup>1</sup>The natural logarithm of Market Capitalization

## 5.1.2 Correlation

In table 4, the correlations between the variables are presented.

Table 4: The correlation between the variables

	gt	gi	imp	cpi	em	ioe	pb	de	re	mc <sup>1</sup>
gt	1.0000									
gi	0.4026 0.0000	1.0000								
imp	0.1872 0.0000	0.0377 0.1337	1.0000							
cpi	0.1760 0.0000	0.0877 0.0000	0.0563 0.0222	1.0000						
em	0.2151 0.0000	0.1174 0.0000	0.1357 0.0000	0.5710 0.0000	1.0000					
ioe	0.2169 0.0000	0.1192 0.0000	0.0976 0.0001	0.9517 0.0000	0.7921 0.0000	1.0000				
pb	0.0178 0.0533	-0.0262 0.0044	-0.0034 0.8906	0.0268 0.0020	0.0634 0.0000	0.0416 0.0000	1.0000			
de	-0.0720 0.0000	0.0082 0.3663	-0.0380 0.1228	-0.0590 0.0000	-0.0612 0.0000	-0.0644 0.0000	0.1170 0.0000	1.0000		
re	-0.0291 0.0015	0.0167 0.0686	-0.2501 0.0000	0.0824 0.0000	0.0665 0.0000	0.0791 0.0000	-0.0353 0.0001	-0.1504 0.0000	1.0000	
mc <sup>1</sup>	-0.0469 0.0000	-0.0489 0.0000	-0.1646 0.0000	0.0691 0.0000	0.0713 0.0000	0.0733 0.0000	0.0436 0.0000	0.0961 0.0000	0.3001 0.0000	1.0000

<sup>1</sup> The natural logarithm of Market Capitalization

A problem that may occur when using multiple regressions is multicollinearity; if the independent variables are strongly correlated to each other, it may cause difficulties when interpreting the output. Therefore, it is of great importance to ensure that there is no multicollinearity among the independent variables; this is done by controlling that the correlation is not stronger than 0,7. (Anderson et al. 2011)

The fact that the three measures of enforcement (cpi, em and ioe) correlate does not have a negative impact on our study since they are tested separately and with the purpose of capturing the degree of enforcement in different ways.

## 5.2 Testing of the hypothesis

**H<sub>1</sub>** = *Enforcement can explain the difference in the development of goodwill within the EU*

The development of goodwill will be tested as *Goodwill/Total Assets*, along with the three different proxies for the degree of enforcement as independent variables. This result in three

different regression models where the control variables will remain fixed during the entire testing.

Further, robustness testing will be done to ensure that the dependent variable is not influenced by chance. The question is whether it is a coincidence or if it will be the same result when testing with a different dependent variable, representing the same phenomenon. In this case, both *Goodwill/Intangible Assets* and *Impairments of Goodwill* will be tested.

Table 5: The result of the regressions with Goodwill/Total Assets as the dependent variable

$$(1) \text{ gt} = \beta_0 + \beta_1 \text{ioe} + \beta_2 \text{pb} + \beta_3 \text{de} + \beta_4 \text{re} + \beta_5 \text{mc} + \beta_6 \text{year} + \beta_7 \text{industry} + \beta_8 \text{country} + \beta_9 \text{tradition}$$

$$(2) \text{ gt} = \beta_0 + \beta_1 \text{em} + \beta_2 \text{pb} + \beta_3 \text{de} + \beta_4 \text{re} + \beta_5 \text{mc} + \beta_6 \text{year} + \beta_7 \text{industry} + \beta_8 \text{country} + \beta_9 \text{tradition}$$

$$(3) \text{ gt} = \beta_0 + \beta_1 \text{cpi} + \beta_2 \text{pb} + \beta_3 \text{de} + \beta_4 \text{re} + \beta_5 \text{mc} + \beta_6 \text{year} + \beta_7 \text{industry} + \beta_8 \text{country} + \beta_9 \text{tradition}$$

VARIABLES	(1)	(2)	(3)
Index of Enforcement	-0.0909 (0.251)		
Earnings Management		-0.0088 (0.267)	
Corruption Perception Index			-0.0109*** (0.000)
Price-to-Book Ratio	-0.0003 (0.216)	-0.0003 (0.201)	-0.0003 (0.217)
Debt-to-Equity Ratio	-0.0000 (0.963)	0.0000 (0.884)	-0.0000 (0.969)
Return on Equity	-0.0003*** (0.000)	-0.0003*** (0.000)	-0.0004*** (0.000)
Market Capitalization	0.0049*** (0.005)	0.0049*** (0.007)	0.0048*** (0.005)
Observations	11 288	10 566	11 531
R-squared	0.279	0.273	0.283

Robust p-value in parentheses

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

gt = Dependent variable, Goodwill/Total Assets

year = Dummy variable

industry = Dummy variable

country = Dummy variable

tradition = Dummy variable

In table 5, the three regressions with the dependent variable *Goodwill/Total Assets* and the different proxies for enforcement are shown. The only proxy of enforcement that is significant is the *Corruption Perception Index* at a level of 0,01. All three coefficients for the proxies of enforcement are negative.

Further, the two control variables *Return on Equity* and *Market Capitalization* are significant on a 0,01 level in all three regressions. *Return on Equity* with negative coefficients and *Market Capitalization* with positive coefficients.

The coefficient of determination ( $R^2$ ) explains how good the model is, by ranging from 0 to 1 (Westerlund 2005). The closer  $R^2$  is to 1, the better the model explains the variation in the dependent variable. With *Goodwill/Total Assets* as the dependent variable,  $R^2$  for the three regressions are approximately 0,28.

### 5.3 Robustness testing

In order to ensure the robustness of *Goodwill/Total Assets* as the development of goodwill, two additional dependent variables will be tested; goodwill as a part of intangible assets and impairments of goodwill as a part of total assets before impairments of goodwill. While the dependent variable is changed, the remaining variables are constant.

#### 5.3.1 Goodwill/Intangible Assets

Table 6: The result of the regressions with Goodwill/Intangible Assets as the dependent variable

$$(1) gi = \beta_0 + \beta_1ioe + \beta_2pb + \beta_3de + \beta_4re + \beta_5mc + \beta_6year + \beta_7industry + \beta_8country + \beta_9tradition$$

$$(2) gi = \beta_0 + \beta_1em + \beta_2pb + \beta_3de + \beta_4re + \beta_5mc + \beta_6year + \beta_7industry + \beta_8country + \beta_9tradition$$

$$(3) gi = \beta_0 + \beta_1cpi + \beta_2pb + \beta_3de + \beta_4re + \beta_5mc + \beta_6year + \beta_7industry + \beta_8country + \beta_9tradition$$

VARIABLES	(1)	(2)	(3)
Index of Enforcement	-0.0445 (0.776)		
Earnings Management		-0.0048 (0.758)	
Corruption Perception Index			0.0054 (0.474)
Price-to-Book Ratio	-0.0009** (0.026)	-0.0009** (0.027)	-0.0010** (0.026)
Debt-to-Equity Ratio	0.0000 (0.505)	0.0000 (0.584)	0.0000 (0.636)
Return on Equity	0.0002 (0.197)	0.0002 (0.162)	0.0002 (0.254)
Market Capitalization	-0.0079** (0.018)	-0.0077** (0.024)	-0.0081** (0.014)
Observations	11 288	10 566	11 531
R-squared	0.096	0.090	0.105

Robust p-value in parentheses

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

gi = Dependent variable, Goodwill/Intangible Assets

year = Dummy variable

industry = Dummy variable

country = Dummy variable

tradition = Dummy variable

In the regressions with *Goodwill/Intangible Assets* as the dependent variable, in table 6, none of the proxies of enforcement are significant at any level. The coefficients of *Index of*



*Enforcement* and *Earnings Management* are negative, while the coefficient of *Corruption Perception Index* is positive.

The control variables *Price-to-Book Ratio* and *Market Capitalization* are both significant with p-values less than 0,05 and negative coefficients in all regressions.

The regressions have coefficients of determination with values around 0,10.

### 5.3.2 Impairments of Goodwill

Table 7: The result of the regressions with Impairments of Goodwill as the dependent variable

$$(1) \text{ imp} = \beta_0 + \beta_1 \text{ioe} + \beta_2 \text{pb} + \beta_3 \text{de} + \beta_4 \text{re} + \beta_5 \text{mc} + \beta_6 \text{year} + \beta_7 \text{industry} + \beta_8 \text{country} + \beta_9 \text{tradition}$$

$$(2) \text{ imp} = \beta_0 + \beta_1 \text{em} + \beta_2 \text{pb} + \beta_3 \text{de} + \beta_4 \text{re} + \beta_5 \text{mc} + \beta_6 \text{year} + \beta_7 \text{industry} + \beta_8 \text{country} + \beta_9 \text{tradition}$$

$$(3) \text{ imp} = \beta_0 + \beta_1 \text{cpi} + \beta_2 \text{pb} + \beta_3 \text{de} + \beta_4 \text{re} + \beta_5 \text{mc} + \beta_6 \text{year} + \beta_7 \text{industry} + \beta_8 \text{country} + \beta_9 \text{tradition}$$

VARIABLES	(1)	(2)	(3)
Index of Enforcement	-0.0412 (0.330)		
Earnings Management		-0.0041 (0.334)	
Corruption Perception Index			0.0051 (0.331)
Price-to-Book Ratio	-0.0000 (0.159)	-0.0000 (0.141)	-0.0000 (0.158)
Debt-to-Equity Ratio	-0.0000* (0.077)	-0.0000* (0.051)	-0.0000* (0.083)
Return on Equity	-0.0004*** (0.000)	-0.0004*** (0.000)	-0.0004*** (0.000)
Market Capitalization	-0.0009 (0.214)	-0.0010 (0.171)	-0.0009 (0.208)
Observations	1 551	1 486	1 562
R-squared	0.142	0.144	0.142

Robust p-value in parentheses

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

imp = Dependent variable, Impairments/(Total Assets+Impairments)

year = Dummy variable

industry = Dummy variable

country = Dummy variable

tradition = Dummy variable

As seen in table 7, the three proxies of enforcement are insignificant with p-values larger than 0,1. The *Index of Enforcement* and *Earnings Management* have coefficients with a negative coefficient and the *Corruption Perception Index* has a positive coefficient.

The control variable *Debt-to-Equity Ratio* is significant at a level of 0,1 with negative coefficients in all three regressions. Furthermore, the *Return on Equity* are significant in the three regressions with p-values less than 0,01 and negative coefficients.

The coefficients of determination are nearly 0,15 in the regressions with *Goodwill/Intangible Assets* as dependent variable.

# 6. Analysis

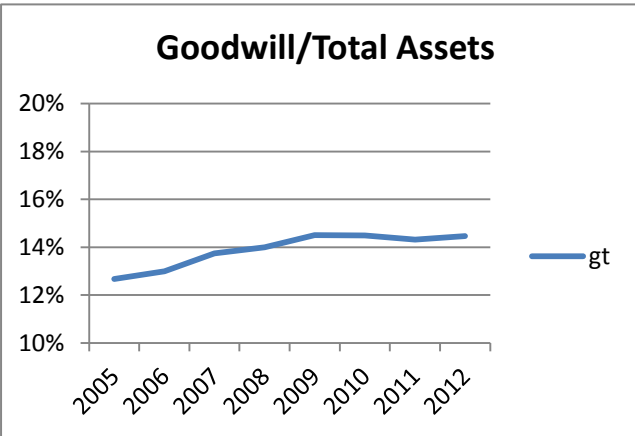
*In the sixth chapter, the hypothesis development and the empirical results are analyzed. The chapter is divided into three sections, starting with the development of goodwill, followed by a discussion regarding the hypothesis and ends with a further analysis.*

## 6.1 Development of goodwill

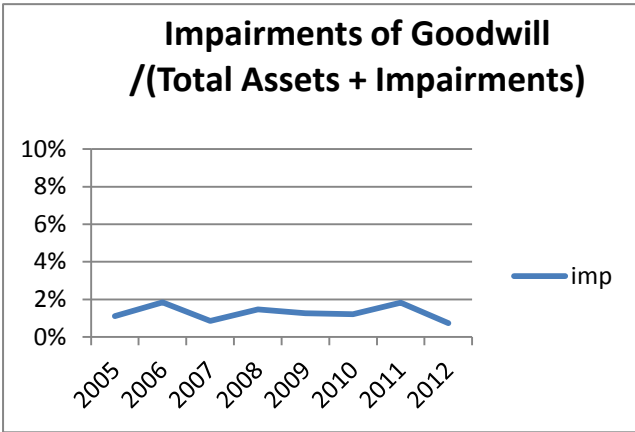
This thesis concentrates on if the impact of enforcement contributes to the differences of development of goodwill over the time period 2005-2012, among countries within the EU. Previous research has found that despite the implementation of IFRS in 2005, there are still some differences within the EU to take into consideration. We wanted to find out if enforcement could be one of the factors that separates the unison of equal reporting in financial statements with regard to goodwill.

To clarify the development of goodwill, expressed as *Goodwill/Total Assets*, *Goodwill/Intangible Assets* and *Impairments of Goodwill*, graphs will be presented in graph 1 – 3.

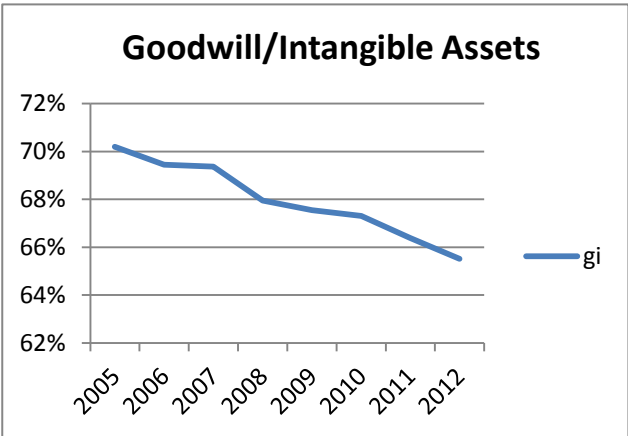
Graph 1: The development of Goodwill/Total Assets



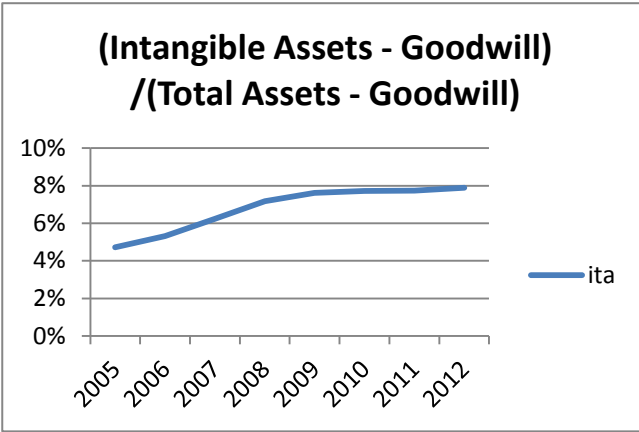
Graph 3: The development of Impairments of Goodwill



Graph 2: The development of Goodwill/Intangible Assets



Graph 4: The development of Intangible Assets/Total Assets



As seen in graph 1 the development of *Goodwill/Total Assets* over the years in the EU has increased until 2009, only to level out during the latter years. The increase in *Goodwill/Total Assets* may depend on an unwillingness to conduct impairments of goodwill, since it is no longer allowed to reverse impairments of goodwill. Therefore, a lot of companies show more caution regarding the management of goodwill and as a result, there are a number of companies with overvalued balance sheets. In recent years, the development of goodwill has started to level out, which can be an effect of the recession that started in 2008 and has affected the economic situation around the world. A further reason as to why the development did not continue to increase may depend on delayed effects of the implementation of IFRS.

The development of *Goodwill/Intangible Assets*, in graph 2, has unlike *Goodwill/Total Assets*, decreased over the time period. The finding that intangible assets have increased more than total assets in relation to goodwill (graph 4), can indicate an impact from the implementation of *IFRS 3 Business Combinations*. This will be suggested for further research.

As seen in graph 3, impairments of goodwill have fluctuated during the years. The fact that the impairments of goodwill did not significantly increase during the recession that occurred during 2008 is worth mentioning. Due to the financial instability in companies, firm values were expected to decrease which could have indicated that impairments of goodwill would have been necessary.

## 6.2 Can enforcement explain the differences in the development of goodwill?

When running the regressions, three different dependent variables were tested for as the development of goodwill and three independent variables as proxies for the degree of enforcement on a country level. Using these proxies, has shown that the hypothesis is true for only one of the nine different regressions. For the other regressions, we are not able to prove that enforcement can explain the differences in the development of goodwill among countries within the EU.

### 6.2.1 Goodwill/Total Assets

The independent variables *Index of Enforcement* and *Earnings Management* are not significant with the dependent variable *Goodwill/Total Assets*, since their p-values are larger than 0,1. Therefore, it cannot be proven that enforcement can explain the differences in goodwill within the EU. *Index of Enforcement* and *Earnings Management* affect the development of goodwill negative, thus the higher the enforcement, the smaller effect on the development of goodwill.

*Corruption Perception Index* has a p-value of 0,00 and with a significance level at 0,01, there are evidence that  $H_1$  is proven. Hence the model states that enforcement can explain the difference in development of goodwill over the years within the EU. *Corruption Perception Index* has a negative effect on the development of goodwill; the higher the enforcement, the smaller effect on the development of goodwill.

The independent variables *Return on Equity* and *Market Capitalization* have p-values that are less than the significance level of 0,01. With regards to *Return on Equity*, the effect on the dependent variable is negative, implying that there is a relationship between *Return on Equity* and the development of goodwill; the higher the *Return on Equity* the lower the effect on *Goodwill/Total Assets*. *Market Capitalization* has a positive effect on the dependent variable. A higher level of *Market Capitalization* corresponds with a larger effect on the development

of goodwill. The variables *Price-to-Book Ratio* and *Debt-to-Equity Ratio* does not have a significant effect since their p-values are higher than the significance level 0,1.

### 6.2.2 Goodwill/Intangible Assets

The independent variables *Index of Enforcement*, *Earnings Management* and *Corruption Perception Index* are not significant with the dependent variable *Goodwill/Intangible Assets*, since their p-values are larger than 0,1. Hence, there is no evidence that enforcement can explain the differences in goodwill within the EU. The independent variables *Index of Enforcement* and *Earnings Management* effect the development of goodwill negative, thus the higher the enforcement, the smaller affect on the development of goodwill. The independent variable *Corruption Perception Index* affect the dependent variable *Goodwill/Intangible Assets* positive; the higher the enforcement, the larger effect on the development of goodwill, which is inconsistent with the results found when using *Goodwill/Total Assets* as the dependent variable.

The variables *Price-to-Book Ratio* and *Market Capitalization* have p-values lower than 0,05, which makes them significant at a significance level of 0,05. Their effect on the dependent variable is negative, hence the higher *Price-to-Book* and *Market Capitalization* the lower the effect on the development of goodwill. The variables *Debt-to-Equity Ratio* and *Return on Equity* does not have a significant effect since their p-values are higher than the significance level 0,1.

### 6.2.3 Impairments of Goodwill

When testing the dependent variable *Impairments of Goodwill*, all of the proxies of enforcement are shown not to be significant, since their p-values are larger than 0,1. Therefore, there is no evidence that enforcement can explain the differences in goodwill within the EU. The independent variables *Index of Enforcement* and *Earnings Management* effect the development of goodwill negative, hence the higher the enforcement the smaller effect on the impairments of goodwill, which is inconsistent with the results found when using *Goodwill/Total Assets* as the dependent variable. The independent variable *Corruption Perception Index* affects the dependent variable positive; the higher the enforcement the larger effect on the impairments of goodwill.

The variable *Debt-to-Equity Ratio* is significant at a significance level of 0,1 and the variable *Return on Equity* is significant at a significance level of 0,01. Their effect on the dependent variable is negative, therefore the higher the *Debt-to-Equity Ratio* and the *Return on Equity* are, the lower the effect on *Impairments of Goodwill*. The remaining variables *Price-to-Book Ratio* and *Market Capitalization* does not have a significant effect since their p-values are higher than the significance level of 0,1.

### 6.2.4 Continued analysis of the proxies

The result from the regressions partly proves that the hypothesis is true; enforcement can explain the differences in the development of goodwill within the EU. Previous research (Brown 2011, Pope & McLeay 2011) states that differences between countries may be due to, despite implementation of IFRS, differences in the practical application and various local monitoring organizations. Brown (2011) also argues that differences will arise because of the nature of the local standards that was used before adopting IFRS, and what degree of compliance monitoring and enforcement the countries have. This has been taken into

consideration by using control variables to ensure that the relationship between enforcement and the development of goodwill does not depend on for example, traditions.

The proxy *Corruption Perception Index* is used to reveal the relationship between a high level of enforcement and transparency, on a country level, which is supported by both Leuz (2010) and Ball et al. (2003). The perception of corruption in a country can be assumed to permeate the corporate culture, and thereby be reflected in their financial accounting. By conducting an open accounting, it reduces room for management to use information for their own benefits. Instead, investors will have full insight and thus be able to make decisions on that information. As to the proxy *Corruption Perception Index*, that has shown to be the only significant, the degree of transparency has an impact on the development of goodwill. Therefore, the more accessible the information is for investors, the smaller the effect on the development of goodwill, since the financial statements should reflect the real economic situation.

On the other hand, eight regressions showed no evidence of the fact that enforcement can explain differences in the development of goodwill among countries within the EU. Due to this, it cannot be verified that enforcement on a country level can explain differences in the development of goodwill. The outcome from the regressions reveals that earlier research is in line with the issue regarding differences among countries within the EU, despite the same framework. In fact, it can depend on other factors or proxies of enforcement; however this will not be discussed in this thesis but will be suggested for further research.

The *Index of Enforcement* is created by Brown et al. (2014) and is an index of country differences in enforcement of accounting standards, more specific; financial reporting enforcement. The proxy *Index of Enforcement* was also shown to be insignificant in regard to the development of goodwill. Therefore, it cannot be proved that the dependent variables are affected by the proxy *Index of Enforcement* in any case. This indicates that the grade of financial reporting enforcement does not affect the development of goodwill.

The proxy *Earnings Management* has not been shown to be of any significant matter. According to Leuz (2010), principles-based standards give managers the opportunity to convey their expertise to the markets, but also give room for managers to pursue hidden reporting motives. As well, the findings by Ball et al. (2003) regarding smoothed earnings, disclose the incentives among managers that may affect the development of goodwill. Since the proxy *Earnings Management* is not significant, it may have an impact on the dependent variables, but it cannot be proved in this thesis. The proxy *Earnings Management* shows which protection the investors have from insiders' incentives to manage the result of private control benefits. Due to the insignificance in the outcome, there is no evidence which indicates that managers' incentives to influence the accounting of goodwill will have an effect on the development of goodwill.

### 6.3 Further analysis

The idea with mutual regulation that was implemented in 2005 in the EU was to achieve certain benefits. One of these benefits is to harmonize the comparability of the financial statements, which is not yet completed due to differences among countries that still exist. The outcome of following IFRS is not equal among countries within the EU (Pope & McLeay 2011). The differences can for example depend on local enforcement, legal origin and/or management incentives. Hence, by examining enforcement, one of nine regressions proved that enforcement can explain the existing differences in the development of goodwill among

countries within the EU. In the outcome of the remaining eight tests, there is no significant evidence that enforcement can explain the development of goodwill.

To ensure minimal effect from other factors, control variables such as traditions were used. When countries that do not originate from the same tradition adopt IFRS, and therefore the framework, it will lead to different outcomes (Brown 2011). Since all countries originates from various traditions, the regulations used in a country before implementing IFRS is of critical importance to how companies will present their financial reports, when following IFRS (Brown & Clinch 1998). Due to the importance of following the framework, enforcement is central. As of now, enforcement is held on a national level, making the European harmonization of financial reporting difficult to complete. In the proxies used for enforcement, there are different degrees, which indicate that the quality of enforcement among countries varies. Hence, the degree of compliance with IFRS indirect depends on the quality of enforcement (Pope & McLeay 2011).

As to principles-based standards, the room for judgments provides opportunities for incentives. According to Leuz (2010), judgments can be misused by managers in order to present better financial statements; in comparison to the true economic situation. Due to the principles-based standards and a low quality of enforcement, incentives to manipulate financial reports arise (Daske et al. 2008). This is so because companies may not want to make impairments of goodwill and indirect signaling to the market that the company is doing badly. In the article written by Ball et al. (2003) there are findings concerning companies in East Asia, having strong incentives to manipulate and thus report smoothing earnings. In the same manner one can manipulate the result by smoothing earnings; one can also influence the financial outcome through impairments of goodwill.

Due to the findings, enforcement can only explain the differences in the development of goodwill, in one of nine regressions. This implies that there can be other factors that the differences depend on, apart from the ones that we have tested and controlled for.

## 7. Conclusions

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*In the seventh and final chapter, conclusions are stated and the research question is answered. Also this chapter contains suggestions for further research.*

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### 7.1 Enforcement

The purpose of this thesis has been to find out if enforcement can explain the differences in the development of goodwill within the EU. This is made by testing three proxies of enforcement against *Goodwill/Total Assets*, *Goodwill/Intangible Assets* and *Impairments of Goodwill*. Even though all countries within the EU apply the same framework, there are still differences when managing goodwill. We have examined if enforcement is a factor to be reckoned with, considering differences in financial reporting.

To begin with, by testing all countries within the EU during the time period 2005-2012, we found that enforcement both has and has not proved an impact on the development of goodwill.

Previous research has stated that differences among countries remain after the implementation of IFRS. By identifying enforcement through our three chosen proxies and the control variables that could have an impact on the development of goodwill, we are able to draw a conclusion. One of the enforcement proxies, *Corruption Perception Index*, shows that enforcement affects the development of goodwill when it is tested with the dependent variable *Goodwill/Total Assets*. Further, the other regressions cannot prove that enforcement has an impact on the development of goodwill.

Moreover, we have been able to confirm that there is a difference between the development of *Goodwill/Total Assets* and *Goodwill/Intangible Assets*. The intangible assets has increased more in relation to goodwill, than what total assets have, which is an interesting finding and will be suggested for further research.

Our thesis is in accordance with the studies by Brown (2011), Pope and McLeay (2011) and Leuz (2010). However, their studies have mostly considered the adoption of IFRS, while our focus has been on the effects that enforcement has had.

Finally, to be able to take part of the benefits gained by the harmonization mentioned by Brown (2011), a further harmonization of accounting practices is necessary.

### 7.2 Suggestions for further research

For further research, we suggest a similar study with a similar hypothesis and method used in this study but including other proxies of enforcement. This is so since our findings only resulted in one significant connection between enforcement and its impact on the development of goodwill.

Our thesis considers enforcement on a country level, which opens up for two different directions. Thus, one suggestion is a study that examines enforcement on a firm level: for example if the level of a strong corporate governance has an impact on the development of goodwill. Since enforcement is measured on a country level, the other suggestion is to examine the development of enforcement within a country, in order to exclude underlying country factors and capture the essence.



In this thesis we have found that intangible assets have increased more than total assets, in relation to goodwill. Therefore, it would be interesting to conduct a study that examines *IFRS 3 Business combinations*, to reveal if it is the impact of the implementation of the standard that is the reason to the finding.

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# Appendix

## Variable information on a country level

Countries	Traditions	Index of enforcement	Earnings management	Corruption Perception Index
Austria	German	8	10	69
Belgium	French	22	8,5	75
Bulgaria				41
Croatia		5		48
Cyprus				63
Czech Republic		6,5		48
Denmark	Scandinavian	22	13,5	91
Estonia				68
Finland	Scandinavian	12	20,5	89
France	French	17,5	8	71
Germany	German	20	7,25	78
Greece	French	9	6,5	40
Hungary		10		54
Ireland	English	10	22,5	72
Italy	French	19	6,25	43
Latvia				53
Lithuania				57
Luxembourg				80
Malta				56
Netherlands	French	13,5	24,25	83
Poland		7,5		60
Portugal	French	10,5	7,5	62
Romania		7		43
Slovakia				47
Slovenia		8		57
Spain	French	12,5	11,25	59
Sweden	Scandinavian	7	24	89
United Kingdom	English	22	25,25	76