



Accounting Quality: Differences before and after IFRS-adoption in Europe

Master-thesis in Accounting

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Abstract:

This thesis examines the differences in the change in accounting quality after IFRS-adoption in Europe. In Europe there are mainly two sorts of countries to distinguish, namely common-law countries and code-law countries. Because the sorts of law differ from each other in the way they deal with accounting, firms and financial reports, it is expected that the effect of IFRS on the accounting quality will differ in those countries. In this thesis the model of Barth et al. (2008) is used, which measures accounting quality with several earnings management metrics. A sample of IFRS-adopters in the common-law countries is composed and a matched sample of firms from code-law countries is created to compare the changes in accounting quality. The results show that in the pre-adoption period the accounting quality of firms in code-law countries differs significantly from the accounting quality of firms in common-law countries, although the significance is not applicable for every metric. In the post-adoption period the differences are not significant for every metric. This tells us that after IFRS-adoption the accounting quality is more on the same level within the examined countries. Furthermore, the results show that, in contrast to what several other papers show, the accounting quality does not increase after IFRS-adoption.

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1. Introduction

In this thesis the change in accounting quality after IFRS adoption is examined. That the accounting quality has increased, is proved in several studies. But the question rises whether the differences within those changes can be explained by the legal backgrounds of each country. Therefore this thesis focuses on the differences between countries with a common-law background and countries with a code-law background.

The history of the IFRS starts in the early seventies of the previous century, and has been a continuous struggle between the many countries that were involved in the development of the standards. The main reasons for implementing international standards were the globalization and the growth of international transactions on the capital market (www.iasplus.com). The comparison between countries would than be easier and investment risks would decrease. In 2002 the IFRS became mandatory and from 2005 on all listed firms within the member states of the European Union had to apply the standards .

The United States, which can be defined as a common-law country, played a very important role in the development of the IFRS. The IASB, the institution which is responsible for the development and further improvement of the IFRS, was initially founded in the United States. Several other common-law countries were involved which made the common-law influence clearly dominant. The development was commonly based upon the current standards in common-law countries. Next to that, only auditors and accountants were seated in the board, which caused a small perspective of the board. This created a situation in which the new standards had many agreements with the standards of common-law countries. To reduce the small perspective of the board, they concluded that the standards had to be adjusted in a way that all listed firms could apply them.

The relation with the two mentioned sorts of law lies in the mentioned agreement. In Europe, countries can be divided roughly into two sorts, with respect to law. There are common-law countries and code-law countries. The focus for this study is on how those two sorts of law differ from each other in the way they deal with companies and accounting. First there is the way how the standards are established. Second, there are differences in the position of firms and financial reports.

Because of these differences in the environment where the IFRS is applied, the effects will turn out differently. When looking at the body of IFRS, it can be stated that it has several agreements with how laws are formed in common-law countries. This forms the base for the hypotheses development. The hypotheses deals with the situation in the pre- and post-adoption period of IFRS. Because of the agreement of IFRS with common-law countries (both the content of the standards and the regulatory process), it is expected that in the pre-adoption period the accounting quality is of higher level than in code-law countries. And because of this difference between the level of accounting quality, the increase of it, when adopting IFRS, will be of higher level in code-law countries. In the post-adoption period the differences will, logically expected, not be significant anymore.

A very important issue is how to define and measure the so called accounting quality. To accomplish this, the model of Barth, Landsman and Lang (2008) is applied. Their study examined the increase in accounting quality per se, based upon a comparison between adopters of IFRS and a matched sample of non-adopters. This thesis

applies the same model, but the comparison includes the code-law countries and the common-law countries. The accounting quality is made concrete by defining it as the level of earnings management, which measures the changes in net-income, the relation of those changes with the changes in cash flows, the correlation between cash flows and accruals and the managing towards small positive net income.

The used data consists of firms from four countries from the European Union. The selection of countries is limited within the European Union, because the IFRS is mandatory for those countries from 2005 on. This creates a broad sample. The examined countries are the United Kingdom, France, Germany and Sweden. This has several grounds. First of all, the U.K. is the representative of common-law in the E.U.. It is debatable whether the U.K. is the only country in the E.U. with common-law, but it is the strongest representative of all. A sample of firms in France, Germany and Sweden represent the code-law countries. Why those three? From a historical point of view, those three countries all derive from the roman-law. But through the ages it has spread over Europe and they all formed their own "version". It can be stated that in current times French law and German legal science have remained the two principal tributaries to the modern code-law tradition (Glendon, Carozza and Picker, 2008). The addition of Sweden to the sample is related to the following. The Scandinavian countries have been separated from the continental countries for a long time. The roman-law reached the Scandinavian countries in a later stadium than it reached the continental countries. Despite the fact that the Roman-law has played a smaller role in the legal development of the code in Scandinavian countries, they must be admitted to the code-law countries because of their close interrelationship and their common "stylistic" hallmarks (Zweigert and Kötz, 1998). The reason for using Swedish firms is related to availability of data.

This thesis is not so ever a proof of showing what is right or wrong, or proving statistical evidence that IFRS is better or worse than any other accounting principles, but rather a reminder or a way to show that it is not that clear and simple to create a uniform and transparent environment for trading and investing. It shows that, despite of controlling for industry specific effects, there are numerous other country specific effects that influence the effectiveness of the IFRS. And those country specific effects are not always based on economic ground, but also the historical legal background of countries plays a very important role. This study shows that it is important for standard setters to take that in mind and to hold on less tight to the idea of an uniform international trading and investing world. The results support this. In the pre-adoption period the differences are not as significant as expected, although the level of accounting quality of firms in the post-adoption period is on the same level within both sorts of countries.

The remainder of this thesis is as follows. In the next chapter the theoretical framework of all mentioned concepts is set up, the background of IFRS is discussed, the history and differences of code-law and common-law is explained and the concepts of accounting quality and earnings management are reviewed. This to give an insight in what is important and how these concepts are related to each other. Chapter three explains the practical part of the thesis with the hypotheses and the used data and model. In Chapter four the results of the statistical analysis will be discussed and at last, in chapter 5, conclusions will be drawn.

2. Theoretical Framework

In this chapter the theoretical framework of all important concepts will be discussed. First the IFRS is explained as well as reasons for adopting it. Then the differences between code-law and common-law will be explained and the relation with IFRS is expounded. At last the concepts of accounting quality and earnings management are described and why they are related to each other.

2.1 IFRS

Background

In 2005 the IFRS became mandatory for all listed companies in all 15 members (at that time) of the European Union. The IFRS is implemented with the thought to reduce information asymmetry and information risk and to increase the relevance and reliability of financial reporting (www.iasplus.com). Accounting information would then be more transparent and comparability would increase. Next to that, IFRS reduces the investment risks and cost of capital worldwide because investors are able to take better decisions, it lowers the costs arising from multiple reporting, it encourages international investment and it improves the allocation of savings worldwide (Street, Gray and Bryant, 1999). Chua and Taylor (2008) argue that globalization and increasing cross-border transactions called for the issuance of a homogeneous and universally recognized set of accounting standards. Next to that, the recent accounting scandals, such as Enron, Worldcom and Ahold, have given rise to various initiatives to develop national and international corporate governance code (Renders and Gaeremynck, 2007).

The initiative for conducting the IFRS lays in the early seventies, when the above mentioned reasons for harmonization lead to the founding of the IASC (International Accounting Standards Committee). In this committee sixteen national professional accountancy institutions from nine countries over the world were represented (Essers, Raaijmakers, Russo, Van der Schee, Van der Tas and Van der Zanden, 2009). During the following thirty years, the representation within the committee expanded to more than 150 professional accountancy institutions from over 110 countries, which shows the importance of the situation and how strong the common interest is (Van der Schee, 2011). In this period several exposure drafts were published and specific standards were added and approved. One major problem arising in the development was the consistency between the applications of principles in the different standards. In every single standard some specific principles were emphasized and this created a difference between the basis of each standard. This problem was solved by the IASC in 1989 by developing a conceptual framework. From that point on all standards had to be assessed against the principles of the framework (Van der Schee, 2011).

In the early nineties, the IOSCO interfered in the composition of IASs. This enforced a significant development of the composition of IASs. In 1995 the first solid set of core standards was completed and after some adjustments by the IASC, the IOSCO gave its endorsement in 2000.

In the early nineties, the discussion about mutual recognition between Europe and the U.S. started (Essers et al., 2009). For the European market, the fourth and seventh directive are mandatory. All member states of the EU had to implement these directives in their local law. The U.S. was reluctant to recognize these directives, because these directives did not contain sufficient standards to comply with the U.S. standards. Next to that, firms in Europe presented their figures in multiple standards, including the U.S. GAAP, and that created a situation in which the U.S. did not benefit from recognition of the European law. One possible solution would be that Europe would recognize the U.S. GAAP, but that was politically unacceptable. The European accounting law would then be completely controlled by a powerful not-European state (Directoraat-Generaal Interne Markt en Diensten, 1995). And as explained later on in this thesis, the U.S. GAAP will not be completely applicable in the E.U., because of differences within the essence of the law. But the need for changes was clearly present and the introduction of legal international accounting standards was necessary. Because of the increasing international environment, firms in Europe presented their figures in multiple reporting standards. This increases the difficulty of effectively monitoring the compliance with the reporting standards. In the end, this will lead to market fragmentation which creates a competitive disadvantage (Directoraat-Generaal Interne Markt en Diensten, 2000).

The fall of the Berlin Wall in 1989 created a rapidly growing need for capital in Germany and a few years later Germany adjusted its laws so that listed companies were allowed to apply US GAAP in order to make investing and trading easier. This development made the position of Europe against the U.S. even more difficult (Essers et al., 2009). Some changes had to be made in order to create a situation in which both parties are satisfied. Several solutions to the problem have been suggested, for example adjustments of the fourth and seventh directive, but they all have been rejected as it would take too much time to investigate the possibilities (Directoraat-Generaal Interne Markt en Diensten, 1995). The most effective solution would be the recognition of the already developed IAS, but only when they comply with the fourth and seventh direction.

In order to encourage the development of the new standards and to make sure that the new international standards fit into their legislation, the E.U. wishes to participate in the process of developing the international standards. Besides that, the IASC was incorporated as a non-profit organization under US law represented by accountants only. The point of view of the IASC was therefore too limited and the influence of the US was clearly dominant (Essers et al. 2009). Therefore, in 2001 the IASB (International Accounting Standards Board) was introduced and took over the function of the IASC for developing the IASs. New methods and procedures for developing and improving standards were introduced, and a new set of standards was named International Financial Reporting Standards (IFRS). An endorsement procedure performed by the European Commission became part of the process for adopting the IFRS in Europe, in order to achieve compliance with the European law. In 2002 the EU Parliament and the EU Council adopted the regulation requiring all listed firms in the EU to apply IFRS from 2005 on.

Although the interference of many countries and institutions, the opinions about IFRS are various. Proponents argue that IFRS does reduce information asymmetry, lowers the cost of capital and increases the capital flow

across borders. But the opponents have doubts about the effectiveness of IFRS. They argue that the characteristics of local business environments and institutional frameworks determine the form and contents of accounting standards. As a consequence accounting standards in two countries don't need to be comparable and the use of IFRS does not necessarily reduce information asymmetry and information risk and increase the relevance and reliability of financial reporting (Chen, Tang, Jiang and Lin, 2010). Similarity of accounting standards does not mean that the underlying national economic backgrounds are similar, so uniform accounting standards might create more noises in accounting numbers (Barth, Landsman, Lang and Williams, 2009). Next to that, implementing IFRS is very expensive, because it's a continuous process of collecting and checking up information. There are political arguments against the IFRS as well. At this time there are 27 countries which are obliged to apply IFRS. Within these countries there are many institutions interfering in the development of IFRS to assert their own interest. This creates a situation in which the IASB has too much wishes and demands to take into account. The predecessor of the IASB was initially formed of accountants from nine different countries. Both could lead to a decrease of the independency of the board. Also the different legislations and jurisdictions in all countries make it hard to apply IFRS uniformly and because IFRS is originally formed in English, translation creates different interpretations (Dickins and Cooper, 2010). This is not conducive for the application of the IFRS.

But all these arguments against the IFRS can be rejected by many studies which show that accounting quality does improve after adopting IFRS, and in the end the benefits of IFRS adoption will exceed the costs, because there is less need for compiling information on the basis of different accounting systems in different countries.

Adoption

IFRS became mandatory for all listed firms within the EU in 2005, but listed firms were allowed to apply IFRS voluntary in previous years. Next to that, non-listed firms are allowed to apply IFRS voluntary.

Voluntary adoption of IFRS depends on several factors. Guggiola (2010) identifies two main characteristics for IFRS adoption, which are based upon the differences between the local GAAP and the IFRS and the link between tax reporting and the financial reporting under local GAAP.

If the local GAAP differs in small ways from IFRS, than countries allow unlisted firms to choose between the local GAAP and the IFRS. This is mostly the case in countries where investors are better protected and have more power (Barth, Landsman and Lang, 2008).

Several countries use the individual accounts for fiscal purposes . IFRS principles have several drawbacks if used for fiscal purposes. Therefore, countries with a more strict link between tax and the individual accounts have generally preferred to limit IFRS adoption to consolidated accounts only(Guggiola, 2010).

One important question is why firms would adopt IFRS voluntary. Like mentioned before, in the end the benefits of adopting IFRS will exceed the costs. The study of Dumontier and Raffournier (1998) among Swiss firms shows that voluntary adoption of IAS (the precursor of IFRS) is commonly applied by firms that are more internationally diversified, are more capital intensive and have a more diffuse ownership. The first characteristic is in line with Chua and Taylor (2008) arguing that there's an increase in globalization and cross-border transactions. The study of El-Gazzar, Finn and Jacob (1999) shows that there are four main motives for

firms to adopt IFRS voluntary. The first is to enhance the exposure to foreign markets, second to improve customer recognition, third to secure foreign capital, and at last to reduce political costs of doing business abroad. A study among German firms that voluntarily adopt IFRS between 1999 and 2001 showed that those firms had a higher accounting quality after adoption (Van Tendeloo and Vanstraelen, 2005).

2.2 Code-law and common-law

Background

The difference between common-law and code-law (also called civil law) lies many years in the past. Code-law derives from Roman law, common-law is from English/Anglo-American origin, which is, they say, very principle based. The code-law uses statutes and comprehensive codes as a primary means of ordering legal relations and relies heavily on legal scholars to ascertain and formulate rules. The common-law is formed by judges who resolve specific disputes. Precedents from judicial decisions, as opposed to contributions by scholars, shape common-law (La Porta, Lopez-de-Silanes, Shleifer and Vishny, 1998).

One possible approach for distinguishing the types of law is drawn by La Porta et al. (1998). They investigated whether the two mentioned types of law differ from each other regarding the protection of suppliers of equity and debt, ownership concentration and the quality of law enforcement. They concluded that in common-law countries the protection of both suppliers is higher in comparison to code-law countries. With regarding to ownership concentration and law enforcement the differences vary, but remarkable is that from the code-law countries France has a stronger ownership concentration and a weaker law enforcement.

A logical response to a lack of protection is a high ownership concentration according to La Porta et al. (1998). If legal protection does not give enough control rights to small investors to induce them to part with their money, then perhaps investors can get more effective control rights by being large (Shleifer and Vishny, 1997). This could be an explanation for the fact that in French code-law countries there is an extremely concentrated ownership (La Porta et al. 1998). But this is a classic example of cause-effect cases. Is it because of the weak protection that the ownership concentration is high? Or is the protection weak because there is a high level of ownership concentration and as a consequence the need for protection is low?

One major drawback of this approach is that La Porta et al. are trying to make a distinction based upon differences between ownership, shares and the voting rights which that entails, dividends, (re)organization, securities and many more variables. These are all financial/economic variables. But the question is whether differences in law can be distinguished based upon economic phenomena. Of course, differences in law will lead to different economic environments, but the essence of the differences is not identifiable with financials.

Therefore, this paper focuses on the difference between the two mentioned main sorts of law with regard to the base of law and the way in which law is applied within the scope of financial reporting. The local GAAP of each country is different because of differences in other parts of the legislation. Both the type of regulations and the standards, as well as the legal regulations may cause differences in reporting standards (Van der Zanden, 2011).

In common-law countries, the standards for financial reporting are drawn using a very large body of text, which includes the rule, the explanation of it and the guidance for application. Standard setters base their statements upon what should be right according to the formulated text. The main driver is legal certainty (Van der Zanden, 2011). Renders and Gaeremynck (2007) argue that compared to common-law countries, which are more principle based, judges in code-law countries are not supposed to go beyond the statutes. But this is remarkable. When viewing one specific law in common-law countries, many rules follow and complement each other. The description is very detailed and comprehensive. One does not need to know the principle to apply the law correctly. In code-law countries the rules are defined in the body of the law. Explanation and application of the rules are described in explanatory notes. These notes are not part of the law, but rather a description of discussions about the rules of the standards and how to apply them in specific cases. Judges and lawyers refer to those notes in their statements, and the main driver is therefore equality. The principles have to be known to apply the rule within the scope of the principles (Van der Zanden, 2011).

Another main difference is the way in which both sorts of law approach the essence of a firm or company. In common-law countries the firm is considered to be an instrument of the shareholders. They own the firm, and as a consequence they own the net assets. As the shareholders own the firm, they indirectly control the board. In code-law countries a firm is considered to be an independent institution with stakeholders. The shareholders do not own the firm, but own shares in the firm that give them certain rights. The board of the firm has to serve the interest of the firm and thus all stakeholders (Essers et al., 2009). This different approach for the essence of a firm causes differences in the legal function of financial reports. In common-law countries the annual financial reports are used as a standalone document with information purposes only. Because the shareholders control the board indirectly, they control the firm. But to make sure that the board acts in the best interest of the shareholders, they have to give detailed information and disclosure about their performances (Essers et al., 2009). The focus is more on information completeness. In this way the information asymmetry between the board and the shareholders is mitigated (Kothari, 2000). In code-law countries the annual financial reports and disclosure documents are legal documents from which rights can be derived. The system involves stakeholders in comparison to the common-law system, where the focus is on only the shareholders. Because more parties benefit from reliable information, inside information is more accessible and the focus is more on accuracy (Kothari, 2000). This creates a situation in which code-law countries and common-law countries have different thoughts about how standards should be developed and formulated. As shown in the paragraph about the history of the IFRS, the influence of the U.S. (common-law) is predominant, and that is why the IFRS is more in line with the Local GAAPs of common-law countries.

Law and IFRS

Guggiola (2010) presented an overview of all European countries which shows to what extend applying IFRS is mandatory or voluntary. In the four countries which are in the scope of the paper the application of IFRS is as follows:

Table 2.1: Overview of IFRS application

Country	Publicly traded firms		Non-publicly traded firms	
	<i>Consolidated Accounts</i>	<i>Individual Accounts</i>	<i>Consolidated Accounts</i>	<i>Individual Accounts</i>
France	Required	Not allowed	Allowed	Not allowed
Germany	Required	Not allowed (except for informational purpose in addition to mandatory Local GAAP)	Allowed	Not allowed (except for informational purpose in addition to mandatory Local GAAP)
Sweden	Required	Not allowed	Allowed	Not allowed
United Kingdom	Required	Allowed	Allowed	Allowed

This table shows that in each country for all publicly traded firms IFRS is mandatory and for non-publicly traded firms the IFRS is voluntary applicable for the consolidated accounts. Remarkable is the difference between the U.K. and the code-law countries for the individual accounts. This could be explained by the differences in the legal function of financial reports and the strictness of the link between taxes and the individual accounts. As mentioned before, code-law legislation consists of laws which are as sharp and strict as possible and which contain the clear standards. Common-law legislation contains detailed instruction, in which the standards are defined and explained. When viewing IFRS, it can be concluded that the IFRS is prepared in the style of common-law (Van der Zanden, 2011). Several studies show results that figures from companies in countries with common-law exhibit significantly greater timeliness (Ball, 2009) and are more value relevant (Lourenço and Curto, 2008) than in code-law countries. The difference caused by applying IFRS is than relatively small. Code-law countries are more likely to hold on to their original law, and therefore reluctant to allow IFRS for individual accounts.

2.3 Accounting Quality

When talking about accounting quality, there is not one specific definition that gives a clear explanation of this concept. Referring back to the background of IFRS, one major goal for implementing it is to increase relevance and reliability of financial reporting. In the previous mentioned conceptual framework these two principles are named as the two most important aspects of accounting quality. But Solomons (1978) states that information cannot be neutral – therefore it cannot be reliable – if it is selected or presented for the purpose of producing some chosen effect on human behavior.

First of all, quality in general is very subjective, because every involved party has other wishes and demands. When relating this to accounting quality, there is one specific term that emerges in several academic papers, namely “Decision usefulness”. The name explains itself. Is the presented information useful for the user to make his or her decision? Scott (2009) analyzes this concept with two questions: who are the users of financial

statements and what are the decision problems of financial statement users? It can be stated that for accounting quality counts that each user has on average the same quality demands, because every user wants to make sure that figures from the past give solid opportunities to forecast future performance. According to Bernstein (1992) the most important measure of accounting quality is the degree to which judgments and estimates actually hold up in the light of future events and circumstances. The closer such estimates correspond to the reality which the future is likely to reveal, the higher the quality of the accounting employed. Because the limitations on those judgments and estimates are determined in the accounting standards, accounting quality primarily depends on the applied accounting standards. But Suderstrom and Sun (2007) argue that the environment of a firm also has a major impact on the accounting quality.

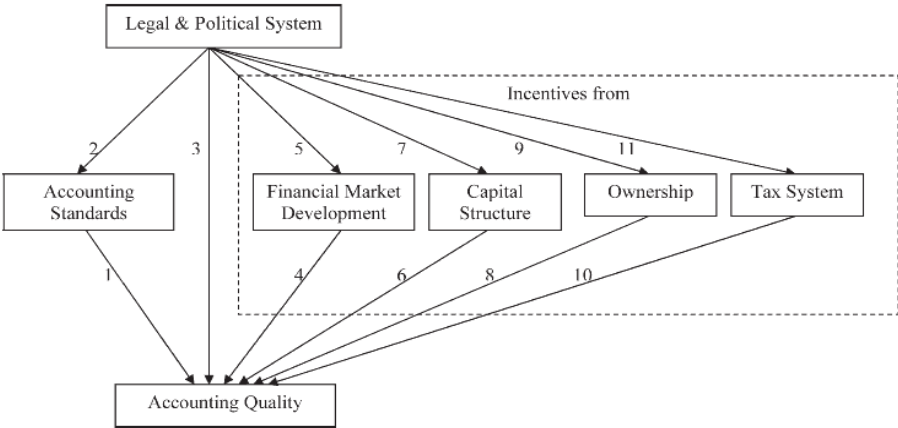


Figure 2.1. Influences on Accounting Quality

As shown in the figure, the political and the judicial system create the environment of a firm. These two factors influence the financial market development, the capital structure, ownership and the tax system. Using a single set of accounting standards may therefore not improve accounting quality uniformly for each firm and country because of these additional factors such as legal and political systems and incentives of financial reporting that may affect earnings quality (Suderstrom and Sun, 2007). The study performed by Chen et al (2009) supports this assertion. They examined the accounting quality (defined as the extent to which the financial statement information reflects the underlying economic situation, which is made concrete by measuring earnings smoothing, managing towards targets, the quality of accruals and timely loss recognition) under IFRS among listed firms in all members of the European Union and concluded that there are many differences in accounting quality between countries. According to Ball (2009) the value of uniform accounting standards is therefore overrated. There is too much attention paid to create those standards, while the influence is limited because of the numerous other factors. When viewing the figure, it could be stated that all mentioned factors are external. The only internal factor of accounting quality is the behavior of the managers. Because in the end the managers have to make the previous mentioned judgments and estimates, the behavior of managers is reflected in the level of earnings management.

2.4 Earnings Management

As mentioned before, the IFRS is implemented with the thought to reduce information asymmetry and information risk and as a consequence to increase the relevance and reliability of financial reporting.

Accounting information would then be more transparent and comparability would increase. Several studies make relevance and reliability measurable by studying the level of earnings management (Barth, Landsman and Lang, 2008, Goncharov and Zimmerman, 2006).

Earnings management is a little vague concept, which is hard to explain in several clear metrics. In the literature many definitions are given. Every manager uses his or her own way within the regulations to present the figures. Therefore the way earnings management is applied differs within every specific firm. Healy and Wahlen (1999) reviewed relevant earnings management research and came up with the following definition;

“Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers.”

In line with this definition Leuz, Nanda and Wysocki (2003) defined earnings management as the alteration of firms' reported economic performance by insiders to either mislead some stakeholders or to influence contractual outcomes. A more strict definition is given by Scott (2009), who states that earnings management is the choice by a manager of accounting policies, or actions affecting earnings, so as to achieve some specific reported earnings objective.

Differences in the pressure on the capital market and institutional factors lead to various incentives for earnings management (Vantenderloo and Vanstraelen, 2005). According to Healy and Wahlen (1999) there are three main categories of incentives for earnings management. These incentives contain capital market expectations and valuation (1), contracts written in terms of accounting numbers (2) and antitrust or other government regulation (3).

Capital market expectations and valuation emphasizes the information itself, not so much the nominal value of the figures presented. For example for showing a stable growth, which is attractive for investors, and showing an even bigger loss.

With regarding to contracts, this incentive is based on different types. First there are loan agreements, which are commonly based on accounting figures. To keep banks and other lenders of debt satisfied, the likelihood of managers to manage the earnings is higher. Then there are the compensation contracts of managers, which are also based on accounting figures. Self-interest of the managers is very high in this case. At last there is job security and reputation of the managers. If they do not perform well, this could damage their reputation and decreases their chances on better jobs in the future.

Antitrust or other government regulation are another incentive for earnings management. When firms perform well and present a stable performance, the authorities are probably likely to decrease their supervision, which

is an advantage for the firms.

Scott (2009) distinguishes four ways to perform earnings management. 'Taking a bath' (1) occurs in periods when firms are struggling to survive. If they report a loss, than managers are likely to report a large one by writing-off assets and provide for expected future costs. Because of accrual reversal, this enhances the probability of future reporter profits. 'Income minimization' (2) is comparable to 'taking a bath', but is less extreme. This is mostly the case in periods of extreme high profitability, to prevent for large income tax expenses. 'Income maximization' (3) is basically the opposite of 'taking a bath'. One reason for income maximization could be bonus schemes for managers depending on the reported results. At last there is 'income smoothing' (4) which is commonly applied by risk-averse managers with bonus schemes to prevent for large fluctuations in income. These four types can all be placed under the three mentioned incentives for earnings management.

2.5 Putting it all together

Now every concept is described, it is important to show the strong relationship between the concepts. Like Bernstein (1992) said, accounting quality depends heavily on judgments and estimates. As described, earnings management is highly susceptible to judgments, because of the incentives of managers to present the figures in one specific way. This creates the situation in which the managers lead the users of the statements in a specific direction. According to Solomons (1978), complete reliability is therefore an utopia, and because of the power of the managers to apply earnings management, it is a very strong measure of accounting quality. Upcoming issue is how to measure earnings management. Several models are developed, but only the model of Barth et al (2008) includes the methods for earnings management as described in paragraph 2.4. In the end the question rises why IFRS could lead to a better accounting quality. When relating IFRS to earnings management, it can be stated that IFRS is more stricter than random local GAAPs and it impedes managers in free interpretation. Therefore it allows less earnings management (Van der Tas, 2006). This conclusion is the basis for the main topic of this thesis: the differences between common- and code-law countries. The explanation about how the law is conducted shows that IFRS is more in line with the local GAAPs of common-law countries. This raises interesting questions about the impact of adopting IFRS. But it is important to keep in mind that there still are significant differences between IFRS and, for example, US GAAP. Although both standards are very extensive, IFRS has less alternatives and more guidelines regarding accruals and the allocation (Helleman, 2006). As shown in figure 2.1 there are numerous factors that affect earnings management and thus accounting quality, and it's impossible to create a strict overview. A solid set of accounting rules of high quality is one important and effective measure to reduce earnings management, but it's an utopia to state that all factors can be determined and overcome (Ball, Robin and Wu, 2003).

3 Hypotheses and methodology

In this chapter the practical parts of the study will be described. First the research question and the hypotheses will be given. Next, the research method is explained, including theoretical background. At last the data selection will be described.

3.1 Research Question and Hypotheses

Many studies have been performed with the question whether the accounting quality does improve. But there is little research that focuses on the differences between the increase of the accounting quality. To give a clear image of the impact of IFRS in Europe, the following research question is formulated:

What are the differences in the increase in accounting quality in Germany, France, Sweden and the United Kingdom?

The hypothesis are conducted in a way that they give an overview of the accounting quality in the period before and after IFRS adoption and what the consequences of the IFRS adoption for the accounting quality are.

As described before, there are mainly two sorts of law in Europe: code-law and common-law, where the United Kingdom represents the common-law and France, Germany and Sweden represent the code-law. Previous research shows mixed evidence. Joos and Lang (1994) performed a study among the United Kingdom, Germany and France and this study shows that the value relevance does not differ significantly between those countries. However, Lourenco and Curto (2008) did show that in the pre-adoption period the value relevance of the accounting numbers is significantly higher in Anglo-Saxon countries than in continental countries. The results of the latter are controlled for industry specific effects, which is the reason of the lack of significant results of the study of Joos and Lang (1994). The study of Arce and Mora (2002) is in line with the results of Lourenco and Curto (2008). Although value relevance is not involved in this study, it can be comparable with the accounting quality as described in this study. Based on previous the following hypothesis is formulated:

H1: In the pre-IFRS adoption period the accounting quality is better in common-law countries than in code-law countries.

Lourenco and Curto (2008) show that after the adoption of IFRS the value relevance has increased in both Anglo-Saxon and Continental countries, although the increase in the Continental countries is not at the same level in each specific country. Like mentioned before, the IFRS is more in line with the local GAAP of common-law countries. Applying IFRS will not cause a big increase in accounting quality than, because it's almost at the same level. It is inevitable that countries moving from code-law-based GAAP to IFRS will experience a more substantial change in financial reporting standards than will those moving from common-law-based GAAP to IFRS (Epstein, 2009). It is therefore expected that the increase in accounting quality in code-law countries is bigger than in common-law countries .

H2: In code-law countries the increase in accounting quality as a consequence of IFRS adoption is bigger than in common-law countries.

Logically, after adoption of IFRS, it is expected that the accounting quality of both common-law and code-law firms is on the same level. They apply the same standards, so there will not be any differences. The last hypothesis is therefore:

H3: In the post-IFRS adoption period the accounting quality does not differ significantly between common-law and code-law countries.

3.2 Research Method

Background

Like mentioned before, it is hard to define earnings management and as a consequence it is even harder to measure earnings management. Nevertheless there are several models conducted to measure earnings management, all based on different metrics.

Basically there are three main models, namely distribution tests, discretionary accruals models and specific accruals models. These models are used in different forms, each with specific variables.

Distribution tests are performed to find evidence for a clear pattern in the distribution of the results of firms. If so, than there could be earnings management. Presumption is that unaffected results have an equal division over the firms within the dataset. The study of Burgstahler and Dichev (1997) shows that firms report small profits rather than losses. Therefore firms with small profits are significantly overrepresented in the distribution. The same study shows that firms have relatively less little decreases in profits than they have little increases in profits. If the profit decreases, than this decrease is often of great size.

This method is useful because it is not necessary to make estimates of abnormal accruals, but one major disadvantage is that the magnitude of earnings management and the specific methods to manage the earnings are not involved (Healy and Wahlen, 1999). Besides that, there is a lack of variables that measure environmental influences in this model. Although Burgstahler and Dichev (1997) make use of firms within different industries, which all have specific characteristics, numerous other effects are excluded from the model. This makes the model not very reliable.

The discretionary accruals models make a distinction between discretionary accruals and non-discretionary accruals. The non-discretionary accruals represent the accounting adjustments imposed by the accounting principles, the discretionary accruals are created by the adjustments that are initiated by the managers, within the scope of the accounting principles. The most commonly accruals model used in studies is that of Jones (1991). Jones uses the discretionary accruals to measure the level of earnings management. One statement is that the quality of the accruals depends on the level of agreement with values created by a regression with the total accruals as dependent variable and changes in sales and fixed assets as independent

variables. High values of the residual in this regression could be evidence for low quality of the accruals and thus earnings management. Theoretically, the residuals should equal the absolute values of the discretionary accruals. However, the split between discretionary and non-discretionary accruals is not always as strict as it should be, and therefore this model is not that accurate..

This model in combination with the models of Healy (1985) and DeAngelo (1986) are compared in the study of Dechow, Sloan and Sweeney (1995). They conclude that all the models considered appear to produce reasonably well specified tests for a random sample of event-years, but the models are not really powerful for earnings management of economically plausible magnitudes. In case of extreme financial performance, all models lead to misspecified tests.

The specific accruals models use the same principles as used in the discretionary accruals, but they focus on one specific accrual. The most commonly tested accruals include depreciation estimates, bad debt provisions, loan and claim loss reserves of banks and insurance companies and deferred tax valuations (Healy and Wahlen, 1999). Because drivers of accruals have different impact on all parts of the accrual, focusing on one accrual eliminates this noise. But a major drawback is that very specific data is required and testing on one accrual is not representative for all. Research based on this model is therefore very intensive. For this method the argument of economically plausible magnitudes is also applicable.

Applied Model

A more recent model is conducted by Barth et al. (2008), which is comparable with the discretionary accruals models. Significant difference is that Barth et al. (2008) use, next to accruals, the change in net income and cash flow as dependent variable, but they exclude the distinction between discretionary and non-discretionary accruals. The control variables are mostly the same, but because Barth et al. use more metrics, the measurement of earnings management is more accurate. Like mentioned before, the IFRS is very detailed and gives clear guidelines for applying the law. It is very strict about allocation and how to deal with accruals. But because accruals have a very strict link with net income and cash flows it is very important to take that relation into account. Besides that, the involved metrics are a clear reflection of the methods for earnings management as mentioned in paragraph 4.2.

Barth et al. (2008) defined accounting quality as a measurement of the level of earnings management. Earnings management is then based upon four metrics, namely the variability of changes in net income scaled by total assets (1), the variability of changes in net income relative to the variability of the change in operating cash flows (2), the correlation between accruals and cash flows (3), which is related to earnings smoothing and, at last, the coefficient on small positive net income (4).

Several control variables are added in order to control for economic environment.

The first metric is tested as follows:

$$(1) \quad \Delta NI = \beta_0 + \beta_1 \text{SIZE} + \beta_2 \text{GROWTH} + \beta_3 \text{ISSUEE} + \beta_4 \text{LEV} + \beta_5 \text{ISSUED} + \beta_6 \text{TURN} + \beta_7 \text{CF} + \beta_8 \text{AUDIT} + \beta_9 \text{XLIST} + \varepsilon$$

where

ΔNI = change in net income, which are divided by total assets

SIZE = Natural logarithm of end of year market value of equity

GROWTH = percentage of change in sales

ISSUEE = Percentage of change in common stock

LEV = end of year total liabilities divided by end of year equity book value

ISSUED = percentage of change in total liabilities

TURN = sales divided by end of year total assets

CF = annual net cash flows from operating activities divided by end of year total assets

AUDIT = dummy variable that equals 1 if the firm's auditor is PwC, KPMG, E&Y or Deloitte and 0 otherwise

XLIST = dummy variable that equals 1 if the firm is listed on an U.S. stock exchange and that exchange is not the firm's primary exchange and 0 otherwise.

Barth et al. (2008) argue that a smaller variance of the change in net income is evidence of earnings smoothing. Like mentioned before, reasons for managers to apply earnings management could be showing a stable growth to stakeholders or for risk adverse managers with bonus contracts to prevent for large fluctuations. The net income will therefore show a stable line. If this is not the case, the net income will fluctuate more and less earnings management is applied. Because net income depends on several other factors, control variables are added to reduce the noise. In the end the residual in the equation represents the change in net income which is not explained by the control variable. So, if earnings management is applied, this will be found in the residual. The variance of the residuals has a negative relation with earnings management, the higher the variance of the residuals in this regression, the lower the level of earnings management.

The second metric is tested as follows:

$$(2) \quad \Delta CF = \beta_0 + \beta_1 \text{SIZE} + \beta_2 \text{GROWTH} + \beta_3 \text{ISSUEE} + \beta_4 \text{LEV} + \beta_5 \text{ISSUED} + \beta_6 \text{TURN} + \beta_7 \text{CF} + \beta_8 \text{AUDIT} + \beta_9 \text{XLIST} + \varepsilon$$

where ΔCF represents the change in the cash flow and other variables are as explained before.

Regarding the second metric Barth et al. (2008) argue that firms with more volatile cash flows typically have more volatile net income. Earnings management is performed within the accruals and this will raise the difference between the changes in cash flows and the net income. So, if volatility of the changes in net income

is lower than that of operating cash flows, then it is likely that the management manages their earnings and as a consequence decreasing the accounting quality. To determine whether this is the case, the ratio of the variance of the residuals of previous equation to the variance of the residuals of this equation is observed. This ratio is negatively related to earnings management. . So, a higher ratio of the variance of the residuals of both equations is related to a lower level of earnings management.

The third metric is a combination of two and is tested as follows:

$$(3) \quad CF = \beta_0 + \beta_1 \text{ SIZE} + \beta_2 \text{ GROWTH} + \beta_3 \text{ ISSUEE} + \beta_4 \text{ LEV} + \beta_5 \text{ ISSUED} + \beta_6 \text{ TURN} + \beta_7 \text{ AUDIT} + \beta_8 \text{ XLIST} + \varepsilon$$

$$\text{ACC} = \beta_0 + \beta_1 \text{ SIZE} + \beta_2 \text{ GROWTH} + \beta_3 \text{ ISSUEE} + \beta_4 \text{ LEV} + \beta_5 \text{ ISSUED} + \beta_6 \text{ TURN} + \beta_7 \text{ AUDIT} + \beta_8 \text{ XLIST} + \varepsilon$$

where ACC represents the accruals, which equal the Net Income minus the Cash Flow and other variables are as explained before. This metric is based upon the Spearman correlation between accruals and cash flows. According the study of Barth et al. (2008) the correlation between accruals and cash flows should be negative, and this correlation could be negatively associated with earnings management. This supports the correlation between accruals and cash flows being a solid metric for measuring accounting quality. The residuals in both equations are tested on correlation. The higher the correlation between residuals of both equations (so near to 0), the lower the level of earnings management.

The fourth and last metric is tested as follows:

$$(4) \quad \text{DPOST} = \beta_0 + \beta_1 \text{ DSPOS} + \beta_2 \text{ SIZE} + \beta_3 \text{ GROWTH} + \beta_4 \text{ ISSUEE} + \beta_5 \text{ LEV} + \beta_6 \text{ ISSUED} + \beta_7 \text{ TURN} + \beta_8 \text{ CF} + \beta_9 \text{ AUDIT} + \beta_{10} \text{ XLIST} + \varepsilon$$

Or, depending on which comparison is made

$$\text{DCOMMON} = \beta_0 + \beta_1 \text{ DSPOS} + \beta_2 \text{ SIZE} + \beta_3 \text{ GROWTH} + \beta_4 \text{ ISSUEE} + \beta_5 \text{ LEV} + \beta_6 \text{ ISSUED} + \beta_7 \text{ TURN} + \beta_8 \text{ CF} + \beta_9 \text{ AUDIT} + \beta_{10} \text{ XLIST} + \varepsilon$$

where DPOST is a dummy variable that equals 1 for observations in the post-adoption period and 0 otherwise, DCOMMON is a dummy variable that equals 1 for observations in a common-law country and 0 otherwise, DSPOS is a dummy variable that equals 1 for observations with net income divided by total assets being between 0 and 0,01 and 0 otherwise and other variables are as explained before.

In this metric, the coefficient of SPOS in the regression indicates, according to Barth et al. (2008), whether a firm is more or less likely to manage its' earnings toward small positive net income. If a firm shows more small positive net income, than there could be more earnings management. Showing small positive figures is better

than admitting a loss. In the first regression, a negative coefficient on SPOS indicates that firms in the post-adoption period manage their earnings towards small positive amounts less frequently than those firms do in the pre-adoption period. In the second regression, a negative coefficient on SPOS shows that firms in code-law countries manage their earnings toward small positive amounts more frequently than firms do in common-law countries.

Although measuring earnings management has been made concrete in this model, and several variables are added to create a solid model, it is still necessary to be critical. There are numerous factors that affect earnings management, and it's impossible to create a strict overview. Next to that, the creators of this model are strongly convinced about the strict distinction between countries with regard to investor protection, ownership concentration and law enforcement. Like described in paragraph 2.2, this distinction is not that strict, so it should be taken into account that the creators of the model could be biased a little, which makes the model a little biased too.

3.3 Data

The study is performed within a sample of listed firms from France, Germany, Sweden and the United Kingdom that apply IFRS. Data is collected from the database ORBIS, which contains information about all listed companies within the four selected countries for the past ten years. Missing data like market value and stock exchanges are collected from WRDS. The data covers a period of 6 years, three years in the pre-adoption period and three in the post-adoption period. The year of adoption is excluded from analyses because some variables are based upon changes between years, which creates skewness in the comparison.

Firms with missing data are removed in a way that all depending variables have valuable observations.

Observations with missing values from control variables are not removed.

The UK is defined as base sample, which contains 129 firms. A matched sample is created with companies from France, Germany and Sweden, randomly selected. The match is found by first checking up on year of adoption and second the industry NACE code.

Final sample contains therefore 258 firms with 1032 observations from two years in the pre-adoption period and two years in the post-adoption period.

In table 3.1 the country breakdown of the sample is presented. As shown, the United Kingdom represents 50% of the total sample. The remaining exists of matches from France, Germany and Sweden, whereby France is strongly represented.

Table 3.1: Country Breakdown used in test sample

Country	2004-adopters		2005-adopters		Total	
	<i>No. of firms</i>	<i>Percentage</i>	<i>No. of firms</i>	<i>Percentage</i>	<i>No. of firms</i>	<i>Percentage</i>
France	34	13%	36	14%	70	27%
Germany	5	2%	39	15%	44	17%
Sweden	7	3%	8	3%	15	6%
United Kingdom	46	18%	83	32%	129	50%
Total	92	36%	166	64%	258	100%

When calculating the metrics, the regressions on previous mentioned metrics are performed. The residuals in those regressions are saved and used for the calculations. Depending on which comparison is made, the data is used in different compositions. For example, when comparing common-law and code-law firms in the pre-adoption period, all observations in the pre-adoption period are used. When comparing common-law firms in the pre- and post-adoption period, all observations from the common-law countries are used.

4 Results

In this chapter the results of the statistical analysis are described. The first paragraph gives some descriptives and the second shows the results from the applied metrics.

4.1 Descriptive Statistics

Tables 4.1 and 4.2 give the descriptive statistics from the variables used in the analyses. The statistics are presented in a way that the differences between common-law countries and code-law countries in the pre-adoption en post-adoption period are visible.

When looking at the test variables, it is shown that in the pre-adoption period firms in the code-law countries have on average smaller changes in Net Income and on average a relatively higher mean difference between the change in Net Income and the change in Cash Flow than firms in the common-law country have.

Remarkable is the figure from the small positive net income. It seems that firms in the common-law country have more incidents of small positive net income in the pre-adoption period.

When the pre-adoption period is compared to the post-adoption period, it is shown that firms in code-law countries have on average a significantly higher change in Net Income and the mean difference between the change in Net Income and the change in Cash Flow has decreased. The number of small positive net income incidents has decreased.

For firms in the common-law country, the change in Net Income has, against all expectations, decreased. When looking at the difference between the change in Net Income and the change in Cash Flow, it remains on the same level. But relatively it has increased, because the changes in Net Income and Cash Flow have decreased. The incidents around small positive net income have decreased, which is according to the expectations. Unlike the prediction, the figures of common-law en code-law firms do show significant differences in the post-adoption period. The changes within each pool are almost conform the predictions. Although the control variables are not taken into account (which makes the descriptives very biased), the test variables show that in some way, the adoption of IFRS has a positive effect on the accounting quality.

When looking at the size and structure of the firms in the sample, it is shown that firms in the common-law country are bigger, but when comparing the pre- and post-adoption period it is worth mentioning that firms in code-law countries show a bigger growth. In both sorts of countries the issue of debt and equity has increased, although the increase of firms in the code-law countries is bigger.

Figures marked with * are significant at the 5% level. When comparing the pre- and post-adoption period, more figures are significantly different in the post-adoption period, which is against the expectations.

Table 4.1: Descriptive statistics of used variables in the pre-adoption period

Variables	Common-law			Code-law			Difference
			<i>Standard</i>			<i>Standard</i>	
<i>Test variables</i>	<i>Mean</i>	<i>Median</i>	<i>Deviation</i>	<i>Mean</i>	<i>Median</i>	<i>Deviation</i>	<i>Mean</i>
DNI	0.0191	0.0056	0.2290	0.0029	0.0012	0.2536	0.0162
DCF	0.0178	0.0061	0.1983	-0.0011	-0.0009	0.2223	0.0189
ACC	-0.0609	-0.0451	0.1246	-0.0563	-0.4720	0.0540	-0.0046
CF	0.0476	0.0827	0.2062	0.0297	0.0659	0.2237	0.0179
DSPOS	0.0600	0.0000	0.2420	0.0400	0.0000	0.2020	0.0200
			<i>Standard</i>			<i>Standard</i>	
<i>Control variables</i>	<i>Mean</i>	<i>Median</i>	<i>Deviation</i>	<i>Mean</i>	<i>Median</i>	<i>Deviation</i>	<i>Mean</i>
SIZE	5.4631	5.4608	0.8689	5.1718	5.0749	0.9533	0.2913*
GROWTH	0.0638	-0.0066	0.5069	0.0513	0.0187	0.4448	0.0125
ISSUEE	0.0290	0.0013	0.1844	0.1588	0.0000	0.6614	-0.1298*
LEV	1.1521	0.9806	2.3175	2.0131	1.6049	3.4838	-0.8610*
ISSUED	0.0804	-0.0224	0.5913	0.0422	-0.0143	0.4211	0.0382
TURN	1.1039	1.0267	0.8188	1.0636	0.9793	0.7611	0.0403
CF	0.0476	0.0827	0.2062	0.0297	0.0659	0.2237	0.0179
AUDIT	0.8100	1.0000	0.3940	0.4800	0.0000	0.5010	0.3300*
XLIST	0.0000	0.0000	0.0000	0.1000	0.0000	0.2990	-0.1000*

Table 4.2: Descriptive statistics of used variables in the post-adoption period

Variables	Common-law			Code-law			Difference
			<i>Standard</i>			<i>Standard</i>	
<i>Test variables</i>	<i>Mean</i>	<i>Median</i>	<i>Deviation</i>	<i>Mean</i>	<i>Median</i>	<i>Deviation</i>	<i>Mean</i>
DNI	0.0127	0.0049	0.1270	-0.0185	0.0019	0.2388	0.0312
DCF	0.0114	0.0029	0.1178	-0.0211	0.0005	0.2319	0.0325*
ACC	-0.0398	-0.0312	0.0445	-0.0391	-0.0326	0.0361	-0.0007
CF	0.0877	0.0943	0.1394	0.0115	0.0786	0.4854	0.0762*
SPOSS	0.0200	0.0000	0.1510	0.0600	0.0000	0.2340	-0.0400*
			<i>Standard</i>			<i>Standard</i>	
<i>Control variables</i>	<i>Mean</i>	<i>Median</i>	<i>Deviation</i>	<i>Mean</i>	<i>Median</i>	<i>Deviation</i>	<i>Mean</i>
SIZE	5.6223	5.6832	0.9136	5.4352	5.3116	0.9405	0.1871*
GROWTH	0.1342	0.0979	0.3555	0.2441	0.0922	1.3388	-0.1099
ISSUEE	0.1045	0.0042	0.7871	0.2701	0.0000	0.8863	-0.1656*
LEV	1.5265	1.1623	2.1339	1.8777	1.4761	3.7487	-0.3512
ISSUED	0.1674	0.0599	0.5040	0.2066	0.0699	0.7569	-0.0392
TURN	0.9929	0.9152	0.7412	0.9743	0.8741	0.6953	0.0186
CF	0.0877	0.0943	0.1394	0.0115	0.0759	0.4854	0.0762*
AUDIT	0.7800	1.0000	0.4140	0.5400	1.0000	0.5000	0.2400*
XLIST	0.0000	0.0000	0.0000	0.0400	0.0000	0.1960	-0.0400*

4.2 Metric Analysis

To give a clear analysis of the data relating to the metrics, it is important first to explain how several tests are conducted and which figures are presented in the following paragraphs and tables.

For the first metric, the change in Net Income, the residuals are calculated by regressing the change in Net Income on the defined control variables. Next, the variance of those residuals is calculated and these figures are presented in the tables, denoted as “variance of Δ NI”. At last both variances are compared by performing a F-test to indicate whether the variances of both samples differ from each other.

For the second metric, the ratio of the change in net income and the change in cash flows, the residuals are calculated by regressing the change in Net Income and the change in Cash Flows on the defined control variables. Next, the variance of those residuals is calculated and then the ratio is calculated as the variance of the residuals of the regression on the change in Net Income divided by the variance of the residuals of the regression on the change in Cash Flows. This figure is presented in the tables for the examined samples, denoted as “variance of Δ NI/ Δ CF”. A Mann-Whitney test is performed to determine significant difference between both samples.

For the third metric, the correlation between the Accruals and the Cash Flows, the residuals are calculated by regressing the Accruals and the Cash Flows on the defined control variables. Next, both residuals are tested on correlation by performing a Spearman correlation test. This figure is presented in the tables for the examined samples, denoted as “correlation of ACC and CF”.

For the last metric, the level of small positive Net Income events, the coefficient on SPOS is calculated by regressing DCODE and DCOMMON on the defined control variables. The coefficient on SPOS is presented in the tables, denoted as “SPOS”.

In the following tables, figures marked with * differ significantly at the 5%-level from the matched sample.

Pre-adoption period

In table 4.3: *Metrics pre-adoption period* the results of the metrics in the pre-adoption period are presented. The common-law figures are compared with the code-law figures.

Table 4.3: Metrics pre-adoption period

Metric	Prediction	Common-law	Code-law	Difference	Percentage
Variance of Δ NI	Common > Code	1.1316	0.8346	0.2970	35.59%
Variance of Δ NI / Δ CF	Common > Code	1.0167	0.9800	0.0367	3.74%
Correlation of Acc and CF	Common > Code	0.0449	-0.1172	0.1621*	-138.31%
SPOS	Negative		-0.0198		

As shown, the figures are according to the prediction.

The common-law firms have a higher variance in residuals of change in net income of 1,1316 than firms in code-law countries, where the variance is 0,8346. The ratio of the variance of residuals of change in net income to the variance of residuals of change in cash flows of common-law firms is 1,0167, which is also higher than that of firms in code-law countries, where the ratio is 0,9800. Although the nominal values suggest that common-law firms have a better accounting quality in the pre-adoption period than firms in code-law countries do, the differences in both metrics are not significant at the 5%-level. According the explanation of the metric, the correlation between Accruals and Cash flows should be negative. The prediction is that the correlation of common-law firms is higher than that of code-law firms. This is the case, but remarkable is the fact that the correlation in common-law firms is positive.

Although the prediction is that the less negative the correlation, the lower the level of earnings management, the opposite can be true (Barth et al., 2008). Dechow (1994) states that a less negative correlation between accruals and cash flows could be indicative of lower accounting quality because of error in estimating the accruals. But this is not a clear explanation for the fact the correlation is positive for the common-law firms. The correlation indicates significant difference at the 5% level, which is according to the prediction that in the pre-adoption period the differences in accounting quality between both sorts of law are significant.

Although the variable and so the coefficient is not significant within the regression, the coefficient of -0,0198 on Small Positive Earnings Events (SPOS) indicates that the code-law firms in the pre-adoption period manage their earnings towards small positive amounts more frequently than common-law firms do, which is according to the prediction.

Post-adoption period

In the post-adoption period, presented in table 4.4: *Metrics post-adoption period*, the differences between both sorts of law are examined.

Table 4.4: Metrics post-adoption period

Metric	Prediction	Common-law	Code-law	Difference	Percentage
Variance of Δ NI	Common = Code	0.9061	1.0625	-0.1564	-14.72%
Variance of Δ NI / Δ CF	Common = Code	1.0523	0.9599	0.0924	9.62%
Correlation of Acc and CF	Common = Code	-0.0103	-0.0306	0.0203	-66.34%
SPOS	0	-0.2367			

The prediction is that the metrics will not have any significant differences, because the accounting quality is supposed to be on the same level. However, full equality will not be reached, because of inevitable differences within the firms.

When analyzing the change in net income, it is shown that the nominal difference between common-law and code-law firms has decreased from 35,59% in the pre-adoption period to 14,72% in the post-adoption period. Remarkable is the fact that the change in net income for common-law firms of 0,9061 is lower than the net income for code-law firms, which is 1,0625. But the difference between both sorts of law is not significant at the 5%-level, so the prediction that in the post-adoption period the differences between both sorts of law are not significant is supported.

When looking at the ratio of net income and cash flows, it is shown that for common-law firms this ratio is 1,0523 and for code-law firms it is 0,9599. The nominal difference between both ratios has increased compared to the pre-adoption period, so this is against the prediction of both sorts of law being at the same level after IFRS-adoption. Although the difference has increased, it is still not significant at the 5%-level, which is according to the prediction.

The correlation between accruals and cash flows for both sorts of firms is negative, -0,0103 and -0,0306, although very small. When comparing the difference in the pre-adoption period and the post-adoption period, it is shown that it has decreased from 138,31% to 66,34%. In comparison to the pre-adoption period, the correlation in the post-adoption period does not differ significantly between code-law and common-law firms, which is according to the expectations.

When looking at the small positive earnings coefficient of -0,2367, it is shown that even in the post-adoption period the common-law firms exhibit less events of small positive earnings than firms in code-law countries, although the prediction is that the coefficient should be higher in the post-adoption period compared to the pre-adoption period. In the post-adoption period the coefficient is insignificant within the regression as well, although the insignificance is of lower level than in the pre-adoption period.

Comparing pre- and post-adoption period for each type of law

When comparing the firms in both sorts of law in the pre- and post-adoption period, the results show that the accounting quality does not necessarily improve after adoption if IFRS, referring to tables 4.5 and 4.6.

Table 4.5: Metrics common-law firms

Metric	Prediction	Pre-adoption	Post-adoption	Difference	Percentage
Variance of Δ NI	Post > Pre	1.4442	0.5189	-0.9253	-64.07%
Variance of Δ NI / Δ CF	Post > Pre	1.0687	0.8518	-0.2169*	-20.30%
Correlation of Acc and CF	Post > Pre	-0.0418	-0.1165	-0.0747*	-178.71%
SPOS	Negative		-0.2205		

Table 4.6: Metrics code-law firms

Metric	Prediction	Pre-adoption	Post-adoption	Difference	Percentage
Variance of Δ NI	Post > Pre	1.2860	0.6828	-0.6032	-46.91%
Variance of Δ NI / Δ CF	Post > Pre	1.1005	0.8533	-0.2472	-22.46%
Correlation of Acc and CF	Post > Pre	-0.0707	0.0739	0.1446	-204.53%
SPOS	Negative		0.0955		

The predictions are that for each metric the presented value is higher in the post-adoption period. As shown in the tables, this is not the case. The values have decreased, which is completely the opposite of what is expected.

Because the figures show that the accounting quality does not increase after IFRS adoption, the second hypothesis in paragraph 3.1 about the increase in accounting quality is rejected in advance. The figures show that the assumption about an increasing accounting quality is not valid.

Although the figures state that the accounting quality has not increased, there are some significant differences worth mentioning, especially for the common-law firms. For those firms the variances of changes in net income and cash flows in the post-adoption period differ significant from those in the pre-adoption period. Next to that the correlation of accruals and cash flows in the post-adoption period differs significant from the correlation in the pre-adoption period. One important remark is that although the accounting quality has on average not increased, the small positive earnings coefficient (SPOS) shows -0,2205, which means that common-law firms in the post-adoption period indeed show less small positive earnings events.

When looking at the figures from the code-law firms, there are not any significant differences visible. Unlike the common-law firms, the code-law firms have an positive coefficient of 0,0955 on SPOS, which means that the number of small positive earnings events has even increased after IFRS adoption.

Last remark is that, although the change is in the wrong direction, the figures from the firms in code-law countries show higher difference than common-law firms, which is partly in common with the expectations. Besides that, although the accounting quality has decreased instead of increased, the accounting quality of both sorts of law became more at the same level after IFRS adoption.

5 Conclusion

The results of the analysis in previous chapter give a clear view about the main topic of this thesis. Strictly speaking this thesis shows the situation of IFRS adoption in three different circumstances and compares those situation.

First of all, the situation in the pre-adoption period is examined. The hypothesis for this situation is formulated in a way that it assumes that in the pre-adoption period the common-law firms have on average a higher accounting quality than the code-law firms, based upon the four mentioned metrics.

H1: In the pre-IFRS adoption period the accounting quality is better in common-law countries than in code-law countries.

When looking at the figures, all expectations are met, although not every figure is significant at the 5%-level. Next to that, the correlation coefficient of Cash Flows and Accruals shows a remarkable figure, which cannot be explained. The first hypothesis is therefore supported, although not very reliable.

Second, the situation in the post-adoption period is examined. Based upon the increasing accounting quality observed in previous research, it is expected that the accounting quality of firms in both types of law does not differ significantly. The hypothesis is formulated as follows:

H3: In the post-IFRS adoption period the accounting quality does not differ significantly between common-law and code-law countries.

Some metrics support that prediction, others are rejecting it. Although the accounting quality of common-law firms is better than that of code-law firms in the post-adoption firms, the nominal differences between code- and common-law firms in the post-adoption period are smaller than in the pre-adoption period and nevertheless insignificant at the 5%-level, which is according to the third hypothesis. Therefore the third hypothesis is reliably supported.

Third, each type of law is compared separately for the pre- and post-adoption period to determine the changes in accounting quality. The following hypothesis is tested:

H2: In code-law countries the increase in accounting quality as a consequence of IFRS adoption is bigger than in common-law countries.

This is where unexpected results show up and the hypothesis is rejected. The figures show that the accounting quality does not increase at all. Drawing reliable conclusions on this hypothesis is therefore not possible.

All these conclusions show that not all the formulated hypotheses can reliable be supported or rejected. A possible explanation for this lies in the legal differences between code-law and common-law countries and the background of IFRS. Like mentioned before, the IFRS has several agreements with the standards of common-

law countries, because the influence of those countries in the development has been abundant. As explained before, there are differences in the use of financial reports. Where common-law countries use the financial reports only for information purposes, in code-law countries rights can be derived from it. As a consequence the intentions of the composers of the reports are different. When relating this to the concept of accounting quality and measuring that with the level earnings management, it can be stated that the incentives for managers to apply earnings management are stronger in code-law countries, because the stakeholders all have rights based upon the financial statements.

In the introduction the purpose of this thesis is explained, and it said that this thesis is not meant to show whether IFRS or Local GAAPs are better or worse. When reviewing the theoretical background, the differences between code-law and common-law are significantly large, and because of that it is impossible to create an international environment of completely comparable figures. The results of this thesis support this statement.

Next to that, despite specific definitions and explanations of the concepts of accounting quality and earnings management, it is impossible to cover all relating items completely. Managers could have hidden motives for earnings management, and as mentioned in paragraph 2.3, there are external factors that affect accounting quality as well. And these are not within the scope of this thesis.

This brings up suggestions for additional research. When making incentives for earnings management measurable, it could be possible to add them to the model. Then the differences between the position of the financial reports is included. Next to that, adding the external factors from figure 2.1 could improve the reliability of the model.

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