Accounting Quality under IFRS: The Effect of Country-Specific Factors

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I confirm that the work submitted, *Accounting Quality under IFRS: The Effect of Country-Specific factors*, is my own and that appropriate credit has been given where reference has been made to the work of others.

Hussein Halabi

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Abstract

Most prior works focus on the effect of IFRS adoption itself on earnings quality using one dimension of earnings quality, and cover the early years of adoption. The present thesis seeks to investigate how country-specific factors shape accounting quality under IFRS across 23 countries between 2007 and 2010, the global financial crisis period. This is the first study to examine the effect of country-specific factors, using recent indicators, on both accruals and real earnings management under IFRS. It is also the first to explore the impact of country-specific factors on conditional conservatism and value relevance together, which highlights earnings quality from contracting perspective and equity valuation perspective at the same time.

The results of the first empirical study indicate that overstating earnings via accruals is less pronounced in countries with strong investor protection, strict enforcement, and large capital markets, and that managing earnings upward utilizing real actions is greater in such countries. Further, the results show that firms engage in both types of earnings management at the same time.

The results of the second empirical study show that earnings are more conservative in countries having strong investor protection and rigorous enforcement of accounting standards, and that the value relevance of book values is greater in those countries. Further, the strength of capital markets has no impact on the extent of conservatism, whereas the value relevance of earnings is greater in large capital markets.

Overall, the main findings of this thesis suggest that country-specific factors still govern accounting quality under IFRS and that they drive different ‘quality’ earnings. The IASB should emphasise the enforcement mechanisms, not only the mere adoption of IFRS. Auditors and regulators should also consider the possible negative effects of real activities to which managers switch in a bid to escape coming under scrutiny in countries with strong institutions. Additionally, researchers should be cautious when drawing conclusions on earnings quality as quality under contracting perspective may differ from that under equity valuation perspective.

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List of Abbreviations

AASB	Australian Accounting Standards Board
ACRA	Accounting and Corporate Regulatory Authority (Singapore)
AFM	Amman Financial Market
AICPA	American Institute of Certified Public Accountants (United States)
AISG	Accountants International Study Group
APB	Accounting Practices Board (South Africa)
ARC	Accounting Regulatory Committee
ASAF	Accounting Standards Advisory Forum
ASC	Accounting Standards Council (Singapore)
ASE	Amman Stock Exchange
CASBE	China Accounting Standards for Business Enterprise
CICA	Canadian Institute of Charted Accountants
EFRAG	European Financial Reporting Advisory Group
EEA	European Economic Area
EU	European Union
FASB	Financial Accounting Standards Board (United States)
FEE	Fédération des Experts Comptables Européens
FRC	Financial Reporting Council (Australia)
GAAP	Generally Accepted Accounting Principles
HGB	Handelsgesetzbuch (Commercial Code, Germany)
HKFRSs	Hong Kong Financial Reporting Standards
HKICPA	Hong Kong Institute of Certified Public Accountants
IAS	International Accounting Standards

IASB	International Accounting Standards Board (successor to IASC)
IASC	International Accounting Standards Committee
ICAEW	Institute of Chartered Accountants in England and Wales
ICCAP	International Co-ordination Committee for the Accountancy Profession (1972–7)
IFAC	International Federation of Accountants
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standards
IOSCO	International Organisation of Securities Commission
JSC	Jordan Securities Commission
JSE	Johannesburg Stock Exchange
OLS	Ordinary Least Square
PFRS	Philippine Financial Reporting Standards
SAC	Standards Advisory Council
SARG	Standards Advice Review Group
SDC	Securities Depository Centre
SEC	Securities and Exchange Commission (United States)
SFRS	Singapore Financial Reporting Standards
SGX	Singapore Exchange
SIC	Standing Interpretations Committee (of the IASC)
SSAP	Statement of Standard Accounting Practice (Hong Kong)

Chapter 1 Introduction

1.1. Introduction

This study explores the effect of country-specific factors, using recent indicators, on quality of accounting amounts under IFRS across 23 countries from 2007 to 2010, the global financial crisis period. No other work has examined the impact of country-specific factors on accounting quality under IFRS captured by an array of metrics. Prior studies focus on the effect of IFRS adoption on earnings quality using one metric of earnings quality, and cover the early years of IFRS adoption. Dechow et al. (2010) point out that earnings quality is contingent on decision context so that we employ an array of accounting quality metrics. We use four proxies of accounting quality: accruals earnings management, real earnings management, conservatism, and value relevance. This is important to capture accounting quality from different perspectives. Graham et al. (2005) found that managers would manage earnings by taking real actions than by making within-GAAP accounting choices, therefore, it would be useful to investigate both accruals and real earnings management. Accruals earnings management occurs when managers use the discretion inherent in accounting estimates or methods for opportunistic purposes. Real earnings management takes place by changing the timing or structuring of transactions to increase earnings such as reducing discretionary expenditures or postponing a new project. Conservatism measures the asymmetric timeliness of earnings from a contracting perspective, while value relevance captures accounting quality from a equity valuation perspective.

The remaining part of this chapter proceeds as follows. Section 2 outlines the background and motivations. Section 3 presents the research aim and questions. Section 4 discusses the significance of the thesis. Finally, section 5 describes the structure of the thesis.

1.2. Background and motivations

The post-World War II era witnessed a rise in international trade and cross-border investment and, consequently, an increase in the need of users, especially investors, for comparable financial statements. In 1960s, the need for comparable financial information became of greater importance following the spread of multinational companies, or more specifically the US corporations acquiring European companies (Camfferman and Zeff, 2007). In view of the fact that each country, in that period, developed its own accounting standards or practices, financial reporting across countries lacked comparability. To tackle this issue, the International Accounting Standards Committee (IASC) was established in 1973, then replaced by the IASB in 2000, in an attempt to harmonise the divergent accounting practices across countries. The aim of the IASC, and its successor the IASB, is to develop a single set of high-quality accounting standards accepted throughout the world.

Since the IASB came onto the scene, we have seen more countries take up the International Financial Reporting Standards (IFRS)[1]. The advocates of adopting a single set of accounting standards across the world argue that using IFRS can improve accounting quality through increasing comparability and transparency in a way that better reflects the performance and economic reality of the firms (Ball, 2006). Accordingly, IFRS adoption results in better capital allocation, greater market liquidity and a lower cost of capital (Ball, 2006: Tweedie, 2006). With different accounting standards used across the capital markets, investors find it difficult to compare financial statements of companies in different countries, and may incur expenses for the adjustments required to make the statements comparable.

[1] IFRS includes both IAS (International Accounting Standards) and IFRS (International Financial Reporting Standards). Over the 2001–2010 periods, countries have varied the timing and extent of their commitment to IFRS. There are a number of plausible hypotheses for these differences, including differences in corporate governance environments, technological differences, cultural differences, and differences in countries' natural resources (Ramanna, 2013).

A much-debated question, however, is whether one-size standards fit all countries; if not, accounting quality could be inconsistent across countries using the same accounting standards. In fact, accounting quality is not only the function of accounting standards alone but also of other local environments (Ball et al., 2000; Ball et al., 2003; Leuz et al., 2003; Burgstahler et al., 2006; Bushman and Piotroski, 2006; Soderstrom and Sun, 2007; Daske et al., 2008). Accounting standards of high quality are important to produce high quality financial information but compliance with the standards is equally important, as the IASB has no power to enforce IFRS. This is of particular importance given the fact that IFRS are principles-based accounting standards that require the exercise of professional judgement and discretion in the preparation of financial reporting.

Prior accounting studies suggest that accounting discretion is 'a double-edged sword' (e.g., Watts and Zimmerman, 1986; Dechow and Skinner 2000). On the one hand, discretion induces a less costly application of reporting regulation. In addition, it permits corporate insiders to adapt financial reports so that they better reflect the underlying economic reality, and to convey private information residing within the firm. On the other hand, this discretion can potentially be used opportunistically. For example, corporate managers may use reporting discretion to secure certain earnings targets, obfuscate economic performance, or avoid covenant violations (Leuz, 2010). The extent to which accounting discretion is used opportunistically hinges upon national legal institutions (Ball et al., 2003), and firm specific characteristics (operating characteristics and reporting incentives) (Burgstahler et al., 2006; Christensen et al., 2015). This gives rise to speculation about the uniformity in financial reporting quality across the countries that made IFRS mandatory for companies in their financial reporting. In the absence of proper enforcement of accounting standards, IFRS adoption is largely inconsequential and firms may abuse the discretion the IFRS afford.

The early works by Ball et al. (2000) and Ball et al. (2003) point to the importance of other local factors interacting with IFRS in determining the quality of reported accounting amounts. Leuz et al. (2003) concluded that earnings management was lower in countries with strong investor protection, low ownership concentration, and large equity markets. Bushman et al. (2004), Burgstahler et al. (2006), and Francis and Wang (2008) found a significant positive relationship between local institutions and accounting quality. These studies focused on the effect of local factors other than the standards on accounting quality.

With the introduction of IFRS in many countries, scholars began to investigate whether the adoption of IFRS improved accounting quality. For example, Barth et al. (2008) tested the effect of voluntary IFRS adoption on earnings management, timely loss recognition and value relevance across 21 countries. Jeanjean and Stolowy (2008) and Capkun et al. (2012) investigated the effect of the compulsory IFRS adoption on earnings management across countries. Using a sample from Europe and controlling institutional factors, Callao and Jarne (2010) and Chen et al. (2010) examined the effect of mandatory IFRS adoption on earnings management. Devalle et al. (2010), Clarkson et al. (2011), and Agostino et al. (2011) studied the effect of mandatory IFRS adoption on value relevance.

The most recent studies of direct relation to this study are the works of Houqe et al. (2012), Isidro and Raonic (2012), and Ahmed et al. (2013). Houqe et al. (2012) provide evidence that earnings management is lower after IFRS adoption only in countries with strong investor protection, while Isidro and Raonic (2012) report that value relevance under IFRS is higher with more globalized markets, greater business sophistication, higher level of economic developments and strong institutions. Ahmed et al. (2013) suggest that earnings quality did not improve after mandatory IFRS adoption across 20 countries compared with 15 countries that did not, even with the presence of strong enforcement. The aforementioned three studies focus

on the effect of IFRS adoption on earnings quality, and cover the early years of IFRS adoption up to 2007.

It is important to bear in mind that there is not an agreed definition in the literature of what accounting quality, or earnings quality, means. One definition holds that high quality accounting information is deemed to improve transparency and reduce information asymmetry (Watts and Zimmerman, 1986). Ball and Shivakumar (2005, p.84) define reporting quality as ''the usefulness of financial statements to investors, creditors, managers, and all other parties contracting with the firm.'' Ball (2006) identifies four requirements to subsume financial reporting under the category of high quality, which include accurate depiction of economic reality, lower room for managerial manipulation, timeliness, and asymmetric timeliness. In their review paper, Dechow et al. (2010) concluded that 'quality' depends on the decision context.

Empirically, different metrics have been operationalised to measure accounting quality using earnings and their components; for this reason, the term 'earnings quality' has been used in the literature as well[2]. Higher accounting quality has been related, among others, to less earnings management (Leuz et al., 2003; Burgstahler et al., 2006; Barth et al., 2008; Houqe et al., 2012; Ahmed et al., 2013), higher conservative earnings (Ball and Shivakumar, 2005; Barth et al., 2008; Peek et al., 2010; Ahmed et al., 2013), and higher value relevance (Barth et al., 2008; Isidro and Raonic, 2012; Ahmed et al., 2013).

While the focus of most prior studies was on the effect of IFRS adoption on one or more dimensions of earnings quality, this study focuses on the variation of earnings quality under IFRS owing to the differences in country-specific factors. This thesis enhances the literature by testing how earnings quality varies under IFRS across 23 countries that adopted IFRS in 2005 or before. The next section discusses the research questions in greater detail.

[2] For the purpose of this study, both 'accounting quality' and 'earnings quality' refer to the quality of reported accounting amounts.

1.3. Research aim and questions

This study seeks to examine the effects of country-specific factors on earnings quality across countries that adopted IFRS in 2005 or earlier. Holding accounting standards constant across the countries in the sample, this study focuses on the role of local factors in shaping accounting quality. In doing that, this study seeks to answer the following research questions:

1. Do investor protection, enforcement of accounting standards and capital market depth influence accruals-based earnings management across countries using IFRS?
2. Does the tendency of managers to manage earnings through real actions differ owing to the differences in the strength of investor protection, enforcement of accounting standards and capital markets across countries mandating IFRS?
3. Does conditional conservatism vary across countries enforcing IFRS due to the variation in the strength of investor protection, enforcement of accounting standards and capital market governing the preparation of financial reporting?
4. Along with conservatism, is there any effect of investor protection, accounting standards enforcement, and strength of capital market on the value relevance of book values and earnings across countries using IFRS?

1.4. Significance of the thesis

This study explores how earnings quality varies across 23 countries that mandated IFRS in 2005 or earlier in terms of the impact of country-specific factors on accounting quality. IFRS are ready-made standards developed by the IASB, a private organisation based in London, and are adopted by various countries across the world. The literature shows that country-specific factors play an important role in determining accounting quality (e.g. Ball et al., 2000; Ball et al., 2003; Leuz et al., 2003; Bushman et al., 2004; Burgstahler et al., 2006; Francis and Wang, 2008).

This study is significant for several reasons:

Firstly, it employs four metrics to capture earnings quality, namely accruals earnings management, real earnings management, conservatism, and value relevance. Using several metrics is important because 'earnings quality' can mean different things to different stakeholders, and each earnings quality metric provides information on quality from a specific perspective. Jeanjean (2012) highlighted the importance of using several measures to capture different dimensions of earnings quality.

Secondly, in relation to the previous discussion, this study examines the effect of local factors on both accruals and real earnings management. Graham et al. (2005) and Cohen et al. (2008) suggest that managers tend to take real actions instead of accruals manipulation to avoid coming under regulatory scrutiny. Doukakis (2014), who found no significant effect of mandatory IFRS adoption on real earnings management, conducted the only international study on both real earnings management and accruals-based earnings management. However, he did not examine the effect of institutional factors on accruals and real earnings management. At country level, strong institutions may drive real earnings management instead of accruals earnings management.

Thirdly, in addition, the study investigates the effect of country-specific factors on conservatism and value relevance of accounting information. By doing so, implications of the effect of local environments on accounting quality under IFRS can be inferred from two perspectives, contracting and equity valuation. This is important because what is desirable from contracting perspective may not be desirable from equity valuation perspective (O'Connell, 2007).

Fourthly, the data used in the study covers the period from 2007 to 2010[3]. Nobes (2011b) argues that firms may continue using their traditional national accounting practices in the early years of IFRS adoption. Furthermore, the change in economic circumstances in post IFRS adoption, compared with pre-adoption, makes it more difficult to test the effect of IFRS adoption on accounting quality, especially because of the global financial crisis that began in late 2007 (Walker, 2013). Therefore, our sample includes countries that adopted IFRS in 2005 or earlier, and data from 2007 to 2010. By doing so, the error in the test may be minimized in terms of the effect of practices in early years IFRS adoption and economic circumstances. Most previous studies covered short periods of post-IFRS adoption with a focus on the effect of mandatory IFRS adoption on accounting quality (e.g. Jeanjean and Stolowy, 2008; Capkun et al., 2012; Houqe et al., 2012; Isidro and Raonic, 2012; Ahmed et al., 2013).

Fifthly, the selection of country-specific factors that shape accounting practices after the adoption of IFRS is based on a general model derived from prior studies in the literature, especially Nobes, (1998), Nobes (2006) and Soderstrom and Sun (2007). Based on this general model, three general country-specific factors were used in the test, namely investor protection, enforcement of accounting standards and the strength of capital market.

Finally, this study uses recent indicators of institutions since it covers the period after 2007, when indictors developed by La Porta et al. (1997, 1998, 2000, 2006) and La Porta et al. (2004) might be out of date, keeping in mind that there is neither a straightforward nor a controversial way to measure institutional factors. Kaufmann et al. (2007) argue that substantial changes in governance structure have occurred during the period from 1996 to 2007. Christensen et al. (2013) found that five EU countries made changes in enforcement after IFRS adoption; therefore, those countries experienced better liquidity. Furthermore, firms in countries not using

[3] We used some data for the period 2011 in the regression of accruals earnings management. The observations in the models investigating the effect of country specific factors on earnings quality metrics were 16328 for the period from 2007 to 2010.

IFRS revealed a positive liquidity effect with the change in enforcement of accounting standards. Their findings are important in that they reveal that there are some changes in institutions along with the adoption of IFRS. For this reason, it would be more accurate to use recent indicators of country-specific factors for recent data.

1.5. Structure of the thesis

The overall structure of the thesis takes the form of eight chapters, including this introductory chapter. The first chapter aims to provide a summary of the motivations for conducting this study. In addition, it outlines the research questions, the significance of the study, contributions of the study, and the structure of the thesis.

Chapter 2 provides the context of the study in respect to IFRS adoption. It presents a brief history of the IASB and its structure. This is important to show that the IASB is not accountable in setting the standards and has no power to enforce them; this is the function of local regulators in each country adopting IFRS. In addition, it identifies each country in the study in terms of the national accounting regulator and the background of IFRS adoption. It illustrates the year of mandatory adoption, the process of the adoption, the version of IFRS and types of firms required to conform to IFRS.

Chapter 3 presents a general model of the factors determining the accounting practices after IFRS adoption. This model is derived from prior studies, especially Nobes (1998), Nobes (2006) and Soderstrom and Sun (2007). It also discusses the early-proposed factors shaping the accounting practices and identifies which of these continue to influence the accounting practices after IFRS adoption. In addition, it demonstrates that three main factors still influence accounting practices after the mandatory use of IFRS and these are investor protection, enforcement of accounting standards and strength of capital markets. Finally, it discusses

agency theory to show how the three aforementioned country-specific factors shape accounting quality.

Chapter 4 reviews the recent research into earnings quality related to IFRS adoption and the effect of the country-specific factors on accounting quality. Definitions of earnings quality, earnings management, conservatism, and value relevance are also provided. In addition, a discussion on the difference between income increasing management and income decreasing management is provided as managing earnings downwards is of less concern than managing them upwards. It further highlights the effect of conservatism on the informativeness of earnings. Eight hypotheses are formulated based on the theoretical framework and the literature review.

Chapter 5 moves on to describe the models used to measure accruals earnings management, real earnings management, conservatism and value relevance, and defines the variables. The measurement of investor protection, the enforcement of accounting standards, and the strength of capital market are discussed in details in this chapter. The sample includes 23 countries that adopted IFRS in 2005 or before. This chapter also discusses the market efficiency hypothesis and methodological issues.

Chapter 6 empirically investigates whether the tendency of mangers to manage earnings upwards via accounting methods is lower in countries with strong investor protection, strong enforcement of accounting standards and strong capital market. It also investigates whether managing earnings upwards through real activities is greater in countries characterised by strong investor protection, strong enforcement of accounting standards and strong capital market.

Chapter 7 is devoted to the second empirical investigation, which examines whether the extent of conditional conservatism captured by timely loss recognition varies across countries due to

the differences in the investor protection, the enforcement of accounting standards and the capital market. It also examines the effect of the aforementioned country-specific factors on the value relevance of the book values and earnings.

Chapter 8 provides a summary of the thesis, restates the contribution of the study, highlights the limitations, and offers suggestions for future research.

Chapter 2 Contextual Background

2.1. Introduction

Several bids to harmonise accounting standards internationally began by accounting bodies across the world following the international economic integration and the rise in global capital flows after the Second World War. In 1966, the Institute of Charted Accountants of England and Wales (ICAEW), the Canadian Institute of Charted Accountants (CICA) and the American Institute of Certified Public Accountants (AICPA) agreed to establish an International Study Group to address the differences in their accounting standards (Zeff, 2012). Thereafter, the Accountants International Study Group (AISG) came into being in 1967 producing studies on the variance in accounting and auditing practices in Canada, the USA and the UK. In fact, the three aforementioned accounting bodies were the first in the world that initiated projects to develop accounting standards which regulate accounting practices. In 1939 the program began in the USA, followed by the UK in 1942 and then by Canada in 1946.

The first real attempt of accounting harmonisation was in 1972 at the 10th International Congress of Accountants, held in Sydney, where two accounting committees emerged. The first was the International Co-ordination Committee for Accountancy Profession (ICCAP), replaced in 1977 by the International Federation of Accountants (IFAC)[4]. The second was the initial agreement on creating the International Accounting Standards Committee (IASC) (Camfferman and Zeff, 2007).

[4] 63 accounting bodies formed the IFAC. The bodies which were not granted a full membership of the IASC played a key role in establishing the IFAC.

The objective of the IASC was to harmonise the accounting standards and principles across borders and thus facilitate comparability of financial reporting internationally (Camfferman and Zeff, 2007). From its creation in 1973 until its restructuring in 2000, the IASC issued an array of accounting standards termed as International Accounting Standards (IAS) in numerical order. The first accounting standard, IAS 1 disclosure of accounting policies, was published in 1975 while the last one, IAS 41 Agriculture, was released in 2000. The curious paradox was that most IASC's members did not adapt their local accounting standards to conform to IAS. IASC'S members from Anglo-American countries did not find the IAS superior to their accounting standards. Other members such as European continent countries and Japan found IAS inconsistent with their accounting systems, which were based on taxation (Zeff, 2012). Nevertheless, some multinational companies began to produce their annual reports in conformity with IASC's accounting standards.

In 1984, the General Electric Company reported that their financial statements were prepared in conformity with IAS in most important aspects. Then Exxon and FMC Corporations followed it by reporting that their financial statements were in accordance with IAS (Camfferman and Zeff, 2007). Over the period between 1987 and 2000, there was also an increasing movement towards adopting IAS voluntarily by many European multinational companies in their consolidated financial statements, but with variations in some cases (Camfferman and Zeff, 2007). For instance, German companies, such as Deutsche Bank, and Swiss companies, such as, Nestle confirmed their annual reports to be prepared in harmony with IAS.

Furthermore, subsequent to the Asian financial crisis of 1997, among other organisations, the G7 Group of industrialised nations and the Financial Stability Forum, a group of financial authorities, expressed endorsement of the international accounting standards (Véron 2007).

Despite such endorsement of the IASC's standards, the original purpose of creating IASC was not met in terms of producing a single set of accounting standards applicable internationally. In 2000, the IASC was wound up in favour of the IASB. The formation of the IASB was a turning point in the history of international accounting, represented by the widespread adoption of its international accounting standards across the world as discussed later in this chapter.

This chapter provides the context of the study in respect to IFRS adoption. It is divided into four parts, including the introduction. The focus of Part 2 is the IFRS Foundation and the IASB. Part 3 describes the countries involved in the study in terms of the process of IFRS adoption, year of adoption and which companies are required to use IFRS. Finally, part 4 concludes the chapter.

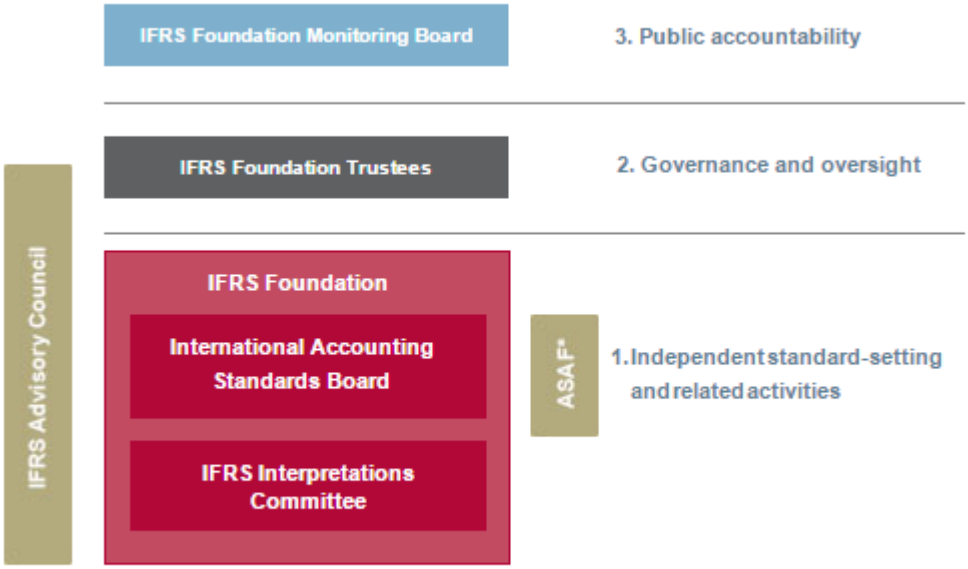
2.2. The IFRS Foundation and the IASB

In May 2000, the IASB saw the light of the day when all the IASC member bodies agreed on the new structure of the international accounting standards setter (Zeff, 2012). The changes in the structure took effect in April 2001 when the first meeting of the IASB was held.

The old structure of the IASC included the IASC board, Steering Committees, Consultative Group, Advisory Council and Standing Interpretations Committee (SIC)[5] (Camfferman and Zeff, 2007). The new structure was composed of IASC Foundation, IASB Board, an Interpretations Committee, and a Standards Advisory Council (SAC). Later, the Monitoring Board and Accounting Standards Advisory Forum were established. A review of the constitution of the organisation is conducted every five years.

[5] The IASC Board, the Steering Committees, the Consultative Group, the Advisory Council and the Standing Interpretations Committee were established in 1973, 1974, 1981, 1995 and 1997 respectively.

Figure 2-1 The IFRS Foundation and the IASB



Source: The website of the IFRS Foundation and the IASB

The IASC board was mainly criticized for being a part time body having small staff members along with volunteering steering committees responsible for generating drafts of standards. The new board, the IASB, preliminarily included 12 full time members and 2 part timers, who were selected based on their technical expertise rather than geographical representation (Camfferman and Zeff, 2007). Another major change in the new structure was forming the IASC Foundation, which was in turn composed of 19 trustees who were in charge of appointing the members of the IASB, the Standards Advisory Council and the interpretations committee, and monitoring the effectiveness of the IASB[6]. Figure 2-1 depicts the overall structure of the IFRS Foundation and the IASB.

2.2.1. IFRS Foundation

The IASC Foundation was composed of 19 trustees at the time of its inception in 2000 (Zeff, 2012), and then expanded to 22 in the subsequent years (Deloitte, 2014). On 1 July 2010, the

[6] The new interpretations committee was carried over from the old committee established in 1997. The IASC Foundation is similar to the old Advisory Council which was formed in 1995.

IASC Foundation was renamed to become the IFRS Foundation (IASC Foundation, 2010). Currently, six of the trustees are from the Asia/Oceania region, six from North America, six from Europe, one from South America, one from Africa and two from the rest of the world (Deloitte, 2014). The trustees are not involved in standard setting, which is the board's responsibility. Instead, their responsibility is to appoint the members of the IASB board, the Interpretations Committee and the SAC, and to supervise the finance of the IFRS Foundation.

Nevertheless, there are loud voices in the EU to review the governance and rules of the IFRS Foundation. As quoted in The Daily Telegraph, Sharon Bowles, a former Member of the European Parliament, said: "[q]uestions have been raised by the European Parliament about the governance structures and lack of transparency of these bodies, as well as their close links to the accounting industry'' (Armitstead, 2014).

The IFRS Foundation has also been widely criticized for relying significantly upon the funding from big accounting companies. In 2012, roughly 33% of the contributions were raised from accounting firms (IFRS Foundation, 2013a). This relatively large proportion of contributions might undermine the independence of IFRS Foundation and its board.

2.2.2. IASB Board

At the outset of the new organisation in 2000, the IASB board was composed of 14 members, of whom 12 were full timers and 2 were part timers. Ten members were from Anglo Saxon countries, 3 from Europe (Germany, France and Switzerland) and 1 from Japan. Furthermore, two members were previously partners of KPMG, another was a partner of an audit company member of PWC and one more member was a partner of PWC (Camfferman and Zeff, 2007).

In January 2009, the Trustees took the decision to widen the IASB by two more members by July 2012 to become 16, including a maximum of three part-timers (IASC Foundation, 2009).

The selection of the IASB members was based upon their technical experience rather than their geographical representation. This has since changed, and the board takes into consideration the geographical diversity to avoid any geographical dominance. One more point to be made is that the IASB's members are paid salaries, as one of the criticisms to the old organisation was because it tended to be a voluntary organisation. David Tweedie was appointed as the chairman of the IASB from its creation until July 2011, when he was succeeded by Hans Hoogervorst, who will carry on till June 2016. The IASB has eliminated some of the old IAS, issued by the IASC, and kept some while the new standards are being issued under the name of IFRS.

Critics have said that English speaking countries (Botzem and Quack, 2009), and accounting companies (Chiapello and Medjad, 2009) dominate the IASB. It seems like the regulated parties take part in setting the regulation with which they have to comply. Some critics claim that the IASB was responsible for the failure of banks when have been allowed to hide bad debts in their financial statements[7]. Shareholders feel that their interests are not sufficiently taken into consideration. However, the IASB is not the only party to blame; the IASB was also heavily lobbied by the EU threatening to 'carve out' an exception of IAS 39, Financial Instruments: Recognition and Measurement, because the application of the mark to market model would cause the banks to report losses or volatile earnings.

The IASB was caught on the horns of a dilemma. On the one hand, if the IASB had refused the EU's demands, it would have risked its legitimacy; then the EU would have withdrawn its support for the IASB. On the other hand, if the IASB had responded to them, it would have dented the attempts of international harmonization, which assumed that all adopters applied the same standards. The EU adopted the IAS 39 partially with some modifications regarding the fair value option and Hedge accounting in 2004 (EC Regulation 2086, 2004). At the end, the

[7] For example, Gordon Kerr, a former banker, wrote a report for the Adam Smith Institute criticizing the IFRS rules in that they allowed banks to recognize expected income as current income (The Guardian, 2011).

IASB bowed partially to the EU's pressure making small changes in the standard in 2005, thus restricting the use of fair value in valuing some instruments. In response, the European Commission resolved the fair value option 'carve out' leaving the Hedge one in effect (EC Regulation 1864, 2005).

At a Treasury committee meeting in November 2008, Sir David Tweedie declared that he had considered resigning in reaction to the political pressure exerted by the EU upon the IASB (Jetuah, 2008). The IASB was forced to amend IAS 39 allowing the reclassifications of hard value financial assets under the threat by the EU to do another carve out if not. Without such reclassification, some banks in Europe would recognize loss or report volatile earnings, following the financial crisis 2007, when the governments were focusing on the relief efforts for banks. Such amendment would open the doors to modifying the international standards by the adopters for national purposes.

This political intervention in setting the international accounting standards raises questions whether the IASB is indeed independent based on expertise as it claims. What about the other countries outside Europe? Why do they adopt standards being set to suit the needs of the business environment of other countries? With such large pressure on the IASB in setting the accounting standards, it would not be surprising that the implementation is different across countries adopting IFRS.

2.2.3. IFRS Interpretations Committee

The new constitution proceeded with the old interpretations committee formed by the IASC in 1997, the IASC's standing committee. In March 2002, its name was changed formally to International Financial Reporting Interpretations Committee (IFRIC) and then to the IFRS Interpretations Committee in 31 March 2010.

There were 12 initial members, and later this expanded by two more. The 14 voting members of the IFRS Interpretations Committee have technical expertise and belong to diverse countries. The objective of the interpretation committee is to produce interpretations of the international accounting standards. In essence, the IOCSO and the SEC suggested the formation of the interpretations committee. The trustees of the IFRS Foundation appoint the members of the IFRS Interpretations Committee, who are chosen to deal with implementation issues providing solutions drawn from their technical ability (IFRS Foundation, 2013b). In addition, they are in charge of addressing the financial reporting issues not dealt with in the IFRS.

2.2.4. Standards Advisory Council

Another component of the new structure of the IASC is the Standards Advisory Council (SAC), whose members are also appointed by the trustees. Its responsibility is to give the IASB and the trustees some advice such as on priorities in IASB's work. The members of the SAC represent a broad range of parties interested in financial reporting such as preparers, auditors, users, financial analysts, regulators, standards setters, accounting bodies and academics (IFRS Foundation, 2013b).

2.2.5. Monitoring Board

In January 2009, the trustees decided to establish the Monitoring Board to be the link between them and public authorities, claiming to promote the public accountability of the organisation (IASC Foundation, 2009). The members of the Monitoring Board are the European Commission, the emerging markets committee of the IOSCO, the technical committee of the IOSCO, the SEC, the Japan Financial Services Agency, and the Basel Committee on Banking Supervision as an observer (IASC Foundation, 2009). The task of the Monitoring Board is to ensure the trustees' fulfilment of their duties set out by the Foundation in addition to participating in appointing and reappointing the trustees (IASC Foundation, 2009).

2.2.6. Accounting Standards Advisory Forum (ASAF)

In February 2013, the IFRS foundation formed the Accounting Standards Advisory Forum (ASAF), as a technical advisory body to the IASB, to help achieve the goal of setting a single globally accepted set of high quality accounting standards. The main aim of the ASAF is to provide the IASB with a broad range of inputs on technical issues from the accounting bodies in different geographical regions/jurisdictions.

The next section moves on to provide some context about the countries in the study.

2.3. Countries in the study

Since this study is concerned with the effect of country-specific factors on earnings quality after mandatory IFRS adoption, we add some context by providing information about the countries in the study. More specifically, several issues are highlighted here, including the year of adoption, IFRS version, which companies comply with IFRS and the exceptions to the compliance with IFRS if any, as presented in Table 2-1.

Our sample includes 16 countries from Europe and 5 from Asia including 2 from the Middle East, in addition to Australia and South Africa[8]. Countries in the study can be divided into three groups: EU countries[9] that use IFRS as adopted by the EU, countries that use IFRS equivalents, and countries that adopt IFRS as issued by the IASB. This shows that there are different versions of IFRS used across countries, which is discussed in Chapter 3 as a possible reason for the variation in accounting practices after IFRS adoption.

[8] In Chapter 5: Research Methodology, we provide information on why we chose these countries.
[9] In this study, EU countries mean the countries that are subject to EU Directives.

In this section, we provide a detailed explanation of the firms required to use IFRS as prior studies have shortcomings when specifying firms reporting under IFRS; section 5.6. reveals these drawbacks.

On a separate note, some countries have put IFRS in place since 2005 but are not included in the sample because of the insufficient number of firms to run the earnings management models.

2.3.1. EU countries[10]

The role of the European Union was significant in promoting the efforts of international accounting standards harmonization. In 1990s, the EU continent has witnessed important developments. The transition from only national listing to cross border listing brought about the need for using a common accounting language in the preparation of financial reporting that can be understood by the investors worldwide. Firms wishing to list on foreign securities markets are required to conform to the local legislation in these countries. The crux of the problem lay in the lack of consistency in the regulations across the world. To some countries, setting their accounting standards is a matter of sovereignty, not to mention the fact that countries are reluctant to change the principles underpinning their accounting systems.

The significance of accounting standards harmonisation became evident when the largest EU Company Daimler Benz, Daimler AG now, decided to list on the New York Stock Exchange. Daimler AG was following German GAAP in their financial reporting; therefore, it needed to reconcile its reports into US GAAP as required by the SEC. The thunderbolt was the huge difference between the earnings reported according to German GAAP in the financial reporting for the year 2003 and its equivalent according to the US GAAP. It was unbelievable that a

[10] The European Directives, including accounting ones, apply to the EEA countries, which include EU countries in addition to Iceland, Liechtenstein and Norway. The EU countries are: Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK.

profit of 0.6 billion using German GAAP became a 1.8 billion loss after the reconciliation into US GAAP (Véron, 2007).

The EU system to harmonise the accounting standards was different from its counterpart of the IASC and the IASB. While the IASC/IASB model was Anglo-American, the accounting system in continental Europe was followed by the countries in the EU. In fact, the harmonisation of accounting in Europe was through legislations in form of company law directives, which had to be agreed and implemented by Member States (Deegan and Unerman, 2011).

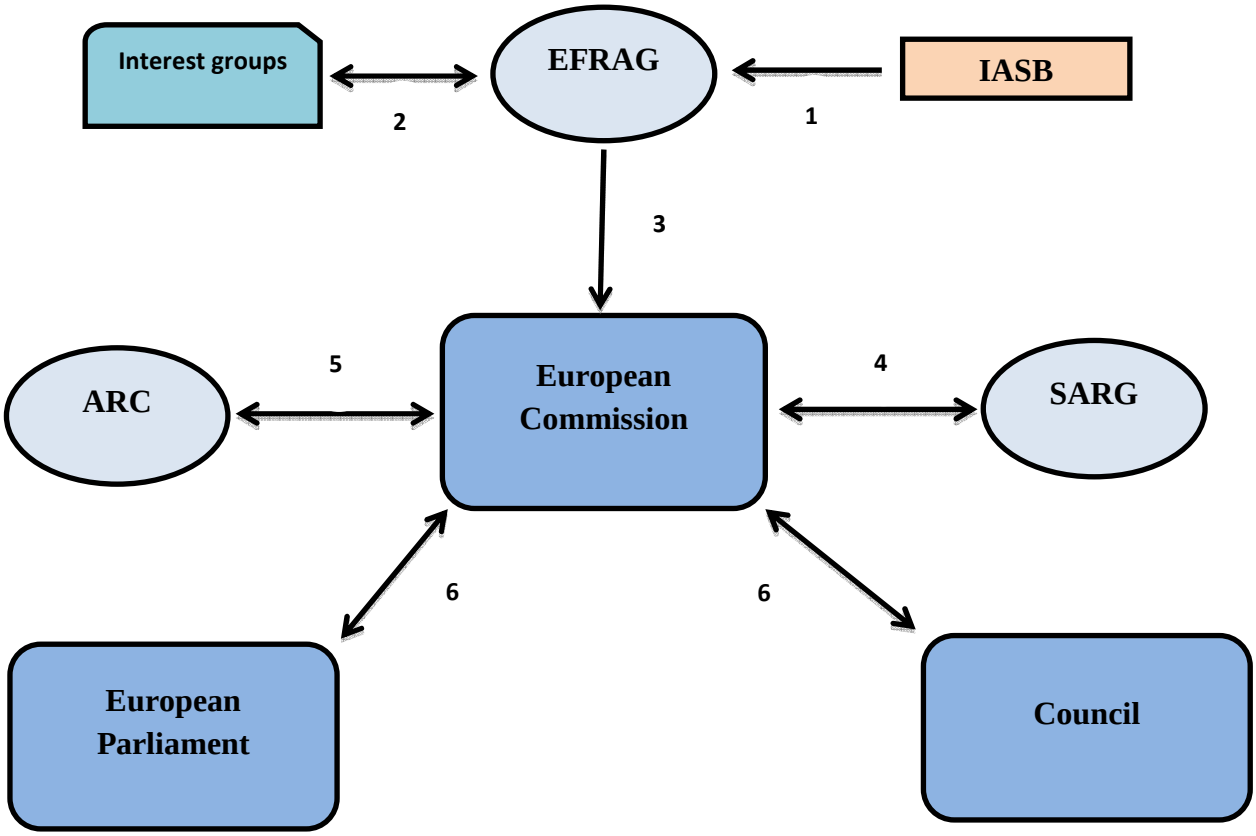
With the increasing number of European companies seeking secondary listing in the USA in 1990s, the EU concerns rose over the European companies being subject to the American rather than European regulation and legislation. The European Union had to choose between two sets of accounting standards, the US GAAP and the IAS. The EU could enforce the US GAAP in the EU countries; however, it would not have any influence over setting the standards which would be fully produced by the FASB (Berger, 2010).

In March 2002, the EU Parliament passed legislation requiring the use of IAS/IFRS in the EU. The legislation enforces listed companies on EU regulated markets to lodge their financial reports in accordance with IAS/IFRS starting from 2005 (IAS Regulation, 2002). There was a consensus on the IAS/IFRS endorsement in the EU Parliament, which was passed by 492 votes to five, with 29 abstentions.

The adoption of future and revised standards by the EU is not automatic, but rather through a process called ‘endorsement’. To reach a decision to adopt a standard, three committees engage in the process: the European Financial Reporting Advisory Group (EFRAG), Standards Advice Review Group (SARG), and the Accounting Regulatory Committee (ARC). Figure 2-2 depicts the endorsement process of IFRS in the EU.

In addition to the aforementioned bodies engaged directly in the endorsement process, the FEE plays an important advisory role on issues related to company laws and accounting harmonization. It represents the accountancy profession in Europe with members from 36 European countries including the 28 member states of the EU.

Figure 2-2 The endorsement process in the EU



Adapted from European Commission

In June 2001, the EFRAG, an accounting technical committee representing a wide spectrum of parties interested in accounting, was established to assist the Commission in issues related to international accounting and harmonisation (EFRAG, n.d.). The Commission seeks the advice of the EFRAG regarding new and revised standards. When the IASB issues or amends a standard, the EFRAG starts a consultation with interested parties and then sends their advice to

the Commission. To ensure whether the opinion of the EFRAG on the endorsement of a standard was proper and balanced, SARG was established in July 2006 and was composed of independent experts who could give such advice. The SARG delivers its advice to the Commission, which in turn prepares a proposal to be sent to the ARC for voting.

The ARC receives the proposal from the European Commission based on the advice of the EFRAG and SARG. The ARC was formed pursuant to the requirements contained in Article 6 of the IAS Regulation in the EU with a regulatory function. All Member States are represented on the ARC, chaired by the European Commission (EC, 2014). If the ARC agrees on the proposal, the Commission will send a draft regulation to the European Parliament and Council, who have three months to reject the draft regulation. When the European Parliament and Council give a positive option or do not oppose the draft in a period of 3 months, the draft regulation is adopted by the Commission. The last stage is to publish the regulation in the Official Journal with an effect identified in the regulation (Deloitte, n.d.a).

That is to say, the version of IFRS used in the EU could be different from those issued by IASB since the endorsement is in the hands of the European Commission advised by EFRAG, SARG and ARC. For political reasons, there could be contradictions between one of the IFRS and the interests of some parties in the EU; therefore, the European Commission may modify or not adopt it. Indeed, we have IFRS as issued by the IASB and IFRS as adopted by the EU. This raises the issue of the differences in the IFRS versions adopted across the world and whether they lead to inconsistent accounting practices. A question mark hangs over the IASB ability to develop globally accepted high quality accounting standards where the national/transnational regulators choose from the standards what suits their business environment.

No better evidence of the departure from the IFRS is the case of IAS 39 on financial instruments in the EU as explained above in this chapter. Again, the European Commission did

not ratify IFRS 9 Financial Instruments, the IAS 39 replacement in response to the financial crisis, in the EU (EFRAG, 2014)[11]. This time the EU chose not to endorse the standard instead of asking for amendment by the IASB. However, in both cases harmonization of accounting standards across the globe is negatively affected.

In summary, this section presented the endorsement of IFRS in EU countries. It began by reviewing accounting harmonisation across the EU and then went on to describe the adoption of IFRS in the EU and the endorsement process in which three European committees are involved, namely the EFRAG, SARG and ARC, and were chaired by the EC. It also showed that the final decision on the adoption of new standards resides in the hands of the European Parliament and Council. Further, the section provided some insight into the politics of IFRS endorsement in the EU in terms of the modification of accounting standards or the postponement of the adoption as in the case of IAS 39 and IFRS 9.

Our sample includes 16 European countries, namely Austria, Belgium, Bulgaria, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Norway, Poland, Portugal, Spain, Sweden and the United Kingdom. Pursuant to the EU's regulation No 1606/2002, the European Economic Area (EEA) companies listed on a regulated market in any of EEA countries must use IFRS as adopted by the EU in lodging their consolidated financial statements starting from 2005.

[11] IFRS 9 introduces a principle-based approach for classification of financial assets based on two models, the cash flow characteristics model and the business model, to replace the classifications in IAS 39 that were considered complex. Another major change in IFRS 9 is the 'expected loss' impairment model, which replaces the 'incurred loss' model under IAS 39, requiring more timely recognition of expected credit losses. For hedge accounting, the new Standard provides a reformed model for hedge accounting enhancing the disclosures of risk management activities. Under the new Standard, gains and losses, resulting from the changes in the entity's credit risk of financial liabilities measured at fair value, should be presented in other comprehensive income instead of income statement under IAS 39 (IFRS Foundation, 2014).

Table 2-1 Background of IFRS across countries [12]

Country	IFRS version for domestic listed companies	Year of adoption	Modification of a principle	IFRS for domestic listed companies		IFRS for foreign listed companies		"WS.AcctgStandardsFollowed" By WorldScope database[13]
				Consolidated	Individual	Required	Permitted	
Australia	Australian IFRS equivalents	2005	Yes	Yes	Yes	-	Yes	23
Austria	IFRS as adopted by the EU	2005	Yes	Yes	No	-	Yes	23
Belgium	IFRS as adopted by the EU	2005	Yes	Yes	**No**	-	Yes	23
Bulgaria	IFRS for Banks	1997						
	IFRS as issued by the IASB	2003						
	IFRS as adopted by the EU	**2007**	Yes	Yes	Yes	-	Yes	23
Denmark	IFRS as adopted by EU	2005	Yes	Yes	permitted	-	Yes	23
Finland	IFRS as adopted by EU	2005	Yes	Yes	permitted	-	Yes	23
France	IFRS as adopted by EU	2005	Yes	Yes	**No**	-	Yes	23
Germany	IFRS as adopted by EU	2005	Yes	Yes	**No**	-	Yes	23

(This Table is continued on the next page)

[12] This table is prepared based on information available on the IFRS Foundation and the IASB website.
[13] WorldScope database provides a variable called "WS.AcctgStandardsFollowed" which shows whether the company applying IFRS. If the output is 23, it means that the company applies IFRS.

Table 2-1 (Continued)

Greece	IFRS as adopted by the EU	2005	Yes	Yes	Yes	-	Yes	23
Hong Kong	(HKFRSs) identical to IFRS	2005	Yes	Yes	Yes	-	Yes	01, 23
Italy	IFRS as adopted by the EU	2005	Yes	Yes	Yes	-	Yes	23
Jordan	IFRS as issued by the IASB	1997	Yes	Yes	Yes	Yes	-	23
Netherlands	IFRS as adopted by the EU	2005	Yes	Yes	permitted	-	Yes	23
Norway	IFRS as adopted by the EU	2005	Yes	Yes	Permitted	-	Yes	23
Oman	IFRS as issued by the IASB	1986	No	Yes	Yes	-	-	23
Philippines	(PFRS)) equivalent to IFRS	2005[14]	Yes	Yes	Yes	PFRS is required	-	01,23
Poland	IFRS as adopted by the EU	2005	Yes	Yes	Permitted	-	Yes	23
Portugal	IFRS as adopted by the EU	2005	Yes	Yes	Permitted	-	Yes	23
Singapore	(SFRS) equivalent to IFRS	2005	Yes	Yes	Yes	-	Yes	01, 23
South Africa	IFRS as issued by the IASB	2005	No	Yes	Yes	**Yes (for some)**	**Yes (for others)**	23
Spain	IFRS as adopted by the EU	2005	Yes	Yes	**No**	**-**	**Yes**	23
Sweden	IFRS as adopted by the EU	2005	Yes	Yes	**No**	**-**	**Yes**	23
UK	IFRS as adopted by the EU	2005	Yes	Yes	permitted	-	Yes	23

[14] http://www.worldbank.org/ifa/rosc_aa_phl_2006.pdf

The regulation permitted Member States to delay compliance with IFRS until 2007 for publicly traded companies whose securities are only debt securities, and for companies listed both in the EU and on other regulated markets outside the EU which are applying different accounting GAAP. Therefore, the year 2007 was the year when all companies listed on regulated markets in the EU prepared their financial statements in accordance with IFRS. In addition, foreign companies listed on a regulated market in EAA counties are required to comply with IFRS as endorsed by the EU starting from 2007, unless their national standards are deemed to be equivalent to IFRS by the European Commission; in such case they may use their national standards (IFRS Foundation, n.d.).

With regard to the separate accounts of listed companies, as it is apparent in Table 2-1, the requirement is different across Europe. Some countries require IFRS as adopted by the EU such as Bulgaria, Greece, and Italy, while other countries require local standards in the preparation of individual accounts of listed companies, such as Austria, Belgium, France, Germany, Spain and Sweden. In some countries, companies may use IFRS as adopted by the EU or local standards in their standalone accounts, such as Denmark, Finland, Netherlands, Norway, Poland, Portugal, and the UK (IFRS Foundation, n.d.).

2.3.2. Countries adopting IFRS equivalents

Four of the countries in this study use local standards equivalent to IFRS as Table 2-1 shows. While the Australian standards are the same as IFRS, the standards in Hong Kong, Singapore and Philippines are almost the same as IFRS with a few modifications.

Australia

The convergence process between the international accounting standards and Australian GAAP goes back to 1996, culminating in publishing the *Australian Convergence Handbook* in 2002

(AASB, 2009). In 2002, the Financial Reporting Council (FRC) in Australia provided the Australian Accounting Standards Board (AASB) with a strategic direction for 2002 - 2003 (FRC, 2002). In it, as from 1 January 2005 all domestic companies listed on a public market should lodge their financial statements in accordance with the Australian national standards described as IFRS-equivalents. The Australian adoption of IFRS coincided with the EU adoption timetable. On the other hand, foreign companies listed on the Australian Securities Exchanges can lodge their financial statements under IFRS. Alternatively, they can apply the accounting rules followed in their country of origin only if these standards are suitable, pursuant to the Australian Securities Exchange and Corporations Act (IFRS Foundation, n.d.).

The FRC urged the AASB to carry on harmonising the Australian accounting standards with IFRS except that one of IFRS was not in the interests of the entities in Australia. The AASB carries out its own consultative process on the IASB's consultation document for comment. In some cases, the IASB may issue a pronouncement but the AASB has not issued its Australian equivalent yet.

When the IASB issues a new standard, for example, the AASB arranges its own consultations to decide whether the standard is suitable for the Australian environment. If yes, an Australian accounting standard equivalent to that issued by the IASB will be laid out by the AASB (Deloitte, n.d.b). Thus, the AASB might decide not to adopt a standard set out by the IASB due to not being in the interests of private and public sectors in Australia. It might also modify the standard to be in the line with the Australian environment.

The AASB, largely, adopts the content and the wording of IFRS in setting its equivalent Australian standard (AASB, 2004). It is not often that the AASB will change the wording, not unless there is a legal requirement to fulfil. Regarding the alternative treatments and

disclosures, the AASB may adopt one treatment of the options stipulated in IFRS and require additional disclosures.

Hong Kong

Hong Kong is one of the two special Administrative Regions of China, with its own legal system. Pursuant to Section 18A of the Professional Accountants Ordinance, the Hong Kong Institute of Certified Public Accountants (HKICPA) is the only official accounting standard-setting body in Hong Kong (IFRS Foundation, n.d.).

Since January 2005, Hong Kong Financial Reporting Standards (HKFRSs) have become fully converged with IFRS except for minor differences. Similar to the term IFRS, which includes all IFRS and IAS, the term 'HKFRSs' includes all HKFRSs, Hong Kong Accounting Standards (HKASs), the new name of Statement of Standard Accounting Practice (SSAP), and all interpretations (ibid).

All domestic companies listed on a public market in Hong Kong are required to prepare their financial statements (stand alone or consolidated) in accordance with HFRSs, the Hong Kong IFRS equivalents. Some companies might be domiciled in Hong Kong but incorporated abroad, the case in which IFRS, as issued by the IASB, or HKFRSs could be used. For this reason, the latter companies are considered domestic rather than foreign. Foreign companies listed on the Hong Kong Exchange can use one of the following if the issuer is from China: HKFRSs, IFRS, and the China Accounting Standards for Business Enterprise (CASBE) ; alternatively, they can use US GAAP in the case where the issuer has a secondary listing in Hong Kong (IFRS Foundation, n.d.).

Philippines

Philippine Financial Reporting Standards (PFRS) are nearly the same as IFRS with limited modifications (IFRS Foundation, n.d.). All domestic companies listed on a public market are required to use IFRS as PFRS in both individual and consolidated financial statements. All large and publically accountable companies must also use IFRS as PFRS in their financial reporting whether or not they are listed on a public market. Companies are deemed to be large if their total assets exceed approximately $8 million, or their total liabilities are approximately more than $6 million.

Companies listed on a public market or in the process of issuing any instruments on a public market are also considered to be large and publically accountable. In addition, large and publically accountable companies include those holding secondary licenses issued by a regulated agency. Foreign entities trading in a public market in Philippines use PFRS in the consolidated financial statements.

Singapore

The Singapore Accounting Standards Council (ASC) is empowered by law to regulate accounting in Singapore. Since 2003, the Companies Act (Cap.50) has required all domestic companies (listed and unlisted) to lodge their financial statements under the Singapore Financial Reporting Standards (SFRS) (PricewaterhouseCoopers, 2008).

Singapore is classified as an IFRS adopter (Deloitte, 2007) because SFRSs are nearly word for word IFRS with several modifications, including transition provisions and effective dates of the standards. Singapore has not adopted IFRIC 2 Members' Shares in Co-operative Entities and Similar Instruments which has, however, no effect on Singapore's incorporated companies, listed and unlisted. Furthermore, the sole modification to the requirements of IFRS has no effect

on Singapore's incorporated listed companies. These modifications took place before 2005; therefore, SFRS has been equivalent to IFRS since January 2005. Singapore Exchange Listing Rules permit foreign companies listed on Singapore Exchange (SGX) to apply SFRS, IFRS or US GAAP (IFRS Foundation, n.d.).

The Accounting and Corporate Regulatory Authority (ACRA) of Singapore can grant permission to Singapore's incorporated companies to use IFRS instead of SFRS. In addition, a Singaporean incorporated company whose securities are publicly traded in Singapore and outside is permitted to use IFRS if they are required by countries in which these companies are listed (IFRS Foundation, n.d.).

When the IASB issues exposure drafts and other pronouncements, the ASC conducts its own consultative process soliciting comments from the public and interested parties on these pronouncements. Then, the ASC submits the collected comments to the IASB. If there is a new IFRS, the ASC deems the endorsement of a SFRS an IFRS equivalent, taking into consideration several issues:

(a) it should be in the interests of stakeholders;
(b) it improves comparability, transparency and disclosure,
(c) whether it is compatible with international accounting standards, and
(d) the Singapore's international business environment.

2.3.3. Countries adopting IFRS as issued by the IASB

Jordan, Oman and South Africa adopted IFRS as issued by the IASB but not at the same time, as it is apparent from Table 2-1.

Jordan

The adoption of IFRS in Jordan began in 1997 when the Companies Law no.22 enforced public shareholding companies to prepare their accounts using the IAS. This was followed by the 1997 Temporary Securities Law No.23, which restructured the capital market in Jordan in accordance with IAS adoption. Three new institutions were announced to be formed in replacement with the Amman Financial Market (AFM) (Al-Akra et al., 2009). Jordan Securities Commission (JSC) came into existence in 1997 while the Amman Stock Exchange (ASE) and the Securities Depository Centre (SDC) in 1999 (IFRS Foundation, n.d.).

Again, in 2002, Securities Law No. 76 mandated all companies to fully conform to IFRS in the preparation of their financial statements. In 2004, an amendment to the Securities Law asserted that all companies would be monitored by the JSC to ensure compliance with IFRS (Al-Akra et al., 2009).

In brief, IFRS as issued by the IASB is compulsory for all domestic and foreign companies operating in Jordan (IFRS Foundation, n.d.). Despite the fact that the JSC and other government authorities eliminated some alternative treatments permitted by the IASB, the annual reports of companies are still in full compliance with IFRS as issued by the IASB (ibid).

Oman

The compliance with IFRS in the Sultanate of Oman began in 1986 with the issue of the Royal Decree 77, the law of Organising the Accountancy and Auditing Profession. It obliged accountants to use the international accounting standards (ibid).

Later, both the Capital Market Law (Royal Decree 80/1998) and the Code of Corporate Governance required listed companies to prepare their financial statements in accordance with IFRS, for both consolidated and individual accounts. The Law does not permit foreign

companies to list on Muscat Securities Market. Since IFRS is adopted by law in Oman, there is no need to endorse the new or the amended standards individually (IFRS Foundation, n.d.).

South Africa

The Accounting Practices Board (APB) in South Africa began harmonising the SA GAAP with IFRS in 1995. As from 2003, the APB issued SA GAAP, which is the same as IFRS but under a different name. SA GAAP was compulsory for all types of companies in South Africa. The Companies Act Regulations and Johannesburg Stock Exchange (JSE) Listings Requirements require domestic companies listed on JSE to use IFRS as issued by the IASB in the preparation of their both separate and consolidated financial statements starting from January 2005. For foreign companies whose primary listing market is JSE, it is mandatory to use IFRS, while it is optional for companies for which JSE is the secondary listing, in which case they may use their home market GAAP (IFRS Foundation, n.d.).

2.7. Conclusion

This chapter provided a brief history of international accounting, and added some context by providing information about the countries targeted in the study. It discussed the IFRS Foundation and the IASB, in addition to endorsement of IFRS across the world. The final part of the chapter provided information about how countries adopted the IASB's standards, including the IFRS version and the date of adoption, and which countries were required to comply with the standards.

Chapter 3 Theoretical Framework

3.1. Introduction

An early discussion of harmonisation of accounting standards emerged during 1960s with a proposal prepared by Kraayenhof (1960; cited in Schwekart, 1985) in which he casts doubts on the attainability of harmonisation due to the differences in local environmental factors across countries. A few years later, exploring the effect of environmental factors on accounting systems and practices had become a trend in international comparative studies (e.g. Muller, 1968; Radebaugh, 1975; AAA, 1977). There was a need for a theory to employ in international accounting studies. Thomas (1986) argued that a considerable body of comparative international studies employed a contingency approach implicitly, stating "[t]here is thus an implicit underlying theory that the reporting practices of each country are contingent on certain social, political and/or economic variables'' (p.255).

Contingency theory emerged in management and organisation structures studies in the 1960s and 1970s, rejecting the approach that prescribes a single 'best way' on which all managers should rely to secure efficient organisational operations. That is, using certain managerial principles is contingent upon the situation (Bartol et al., 2004). Then the application of contingency theory found its way into management accounting literature.

This has been followed by the employment of contingency approach in financial accounting literature. In an early empirical study, Thomas (1986) examined whether the accounting methods which corporates use are dependent on circumstantial variables. Such variables require that managers use their discretion in the preference of accounting methods[15].

The literature of international accounting reveals some attempts to classify the accounting systems and address the reasons behind the differences in such accounting practices around the

[15] The term 'circumstantial variables' has been used first by Cadenhead (1970).

world. Most of these studies were in the era before the use of IFRS in different countries. Then, the attention turned to explain the reasons for the variation in accounting practices after the switch to IFRS. To address the reasons behind the national patterns of IFRS following the mandatory adoption of IFRS, it would be useful to identify the reasons for international accounting differences before the switch to IFRS, and then after the IFRS adoption.

The aim of this chapter is to provide a conceptual theoretical framework for the factors determining accounting practices after mandatory IFRS adoption. It discusses the factors that shape accounting practices across countries using a contingency approach on macro level, and then agency theory to explain why these factors are important to produce high accounting quality under IFRS. It is composed of eight themed sections, including the introduction. The second section presents the early-proposed frameworks. The third section is concerned with the empirical works and more developed models. Section 4 deals with culture and institutional factors. Section 5 describes more recent studies. Section 6 draws upon studies in the IFRS era. Section 7 discusses agency theory. Section 8 concludes the chapter.

3.2. Early frameworks

In 1967, "International Accounting'', written by Professor Gerhard Mueller (Mueller, 1967), was published and was the first textbook dealing with accounting practices across the world. In it, Mueller tried to classify accounting systems, or accounting practices, around the globe. Under this classification, national accounting systems can fall into one of four categories: macroeconomic, microeconomic, independent discipline and uniform approach.

First, under the *macroeconomic approach*, accounting is viewed as a tool that helps governments in their national economic policies. The accounting system in Sweden at that time was cited to be in the macroeconomic group. Second, in the *microeconomic approach*, such as in Netherlands, accounting serves as a tool that aids individual private businesses in achieving

their objectives. Such type of accounting systems may be popular in a market-oriented economy where the emphasis is placed on individual enterprises. Third, accounting systems as an *independent discipline* refers to the systems in countries where profession and business practices play an important role in developing the accounting systems in isolation from the economic theories or governments. Mueller had classified the accounting systems in the UK and the USA as an independent discipline. Fourth, accounting as a *uniform approach* has been developed to be an administrative tool, and standardised by governments. France was suggested as an example of uniform accounting systems.

Seidler (1967) provided a different classification of accounting systems based on the term 'spheres of influence' proposing three systems: British, American and Continental European. Accounting practices in two countries may be similar due to political, traditional, or colonial factors. Seidler's model is simple making the accounting systems contingent on external factors but ignoring the effect of internal factors. Previts (1975) discussed Seidler's classification, suggesting Australia, Canada, Greece, Nigeria, South Africa, some countries in South America, Thailand and the British West Indies to be under the British system. He also associated Germany and Japan with the American model. The last model, the continental European system, which was primarily French, was identified as the system which was popular in Southern Europe and former territories where the commercial codes embodied the codes promulgated by Napoleon. Ten years after the Seidler, the American Accounting Association in its Committee report (AAA, 1977) expanded the classification of accounting systems based on ''zones of influence'' into five systems. These were British, French-Spanish-Portuguese, German-Dutch, Communist, and USA.

In 1968, Mueller produced another classification that explains the differences in accounting practices among countries using four characteristics of business and social environments. These

were business developments, business complexity, legal and political system. Generally, Mueller emphasises the role of environments, such as political and economic, in developing the accounting systems. He contends that accounting "must respond to the ever-changing needs of society and must reflect the social, political, legal and economic conditions within which it operates" (Mueller, 1968, p.95).

A clearer use of the contingency model in international accounting studies can be noted in the studies by Radebaugh (1975) and AAA (1977), where the proposition was that accounting systems are contingent on a number of factors. Relatively speaking, Radebaugh (1975) introduced a more comprehensive framework addressing both local and international factors that influence national accounting objectives, standards and practices. Building upon the work by Mueller, he provided eight groups of environmental variables: nature of the enterprise, enterprise users, government, other external users, accounting profession, local environmental characteristics, academic influences, and international influences. He applied this model to Peru stressing the importance of understanding the factors that led to a change in accounting objectives, standards, and practices. By doing so, it would be possible to determine when it is suitable to implement uniform accounting standards and when these universal accounting standards are not applicable. Although this was the most comprehensive model produced at that time, it has not escaped criticism from some authors. For example, Saudagaran and Diga (1999) pointed out that Radebaugh did not fully elaborate the link between the proposed variables and accounting practices making its explanatory contribution limited.

An alternative framework to categorize accounting systems is using morphology, which is a way of preparing a list of factors that influence accounting systems. Having described these features, one can use empirical data to gain clustering. Buckley and Buckley (1974) were the first who proposed morphology describing the accounting standards setting but their work was

not specifically developed for the purpose of international accounting systems. The American Accounting Association (AAA, 1977, p.99) provided a morphology of accounting systems based on eight features of parameters. These were:

1- political system;
2- economic system;
3- stage of economic development;
4- objectives of financial reporting;
5- source of or authority for standards;
6- education, training and licensing;
7- enforcement of ethics and standards; and
8- client.

Saudagaran and Diga (1999) criticized the AAA (1977) model in terms of not differentiating between accounting parameters and environmental parameters. Further, no link has been made between the proposed framework and the hypotheses about why and how the combinations of their model characteristics emerged, persisted and varied over time.

The next section moves on to present empirical studies and more developed models including the works of Frank (1979), Nair and Frank (1980), Nobes (1981), Belkaoui (1983), Belkaoui and Maksy (1985), and Schweikart (1985).

3.3. Empirical studies and more developed models

Inspired by the same reasoning that stresses the importance of environmental factors in determining accounting practices, Frank (1979) used factor analysis to classify 38 countries in 4 groups based on the extent of 233 accounting principles. These four categories were British Commonwealth, Continental European, Latin American and US-influenced countries. Then he tested the relationship between the four groups and three explanatory variables that measured culture (language), economic structure, and international trade patterns, concluding that cultural and economic features influenced accounting principles and practices. Nair and Frank (1980) extended the work of Frank (1979) by examining whether grouping yielded by disclosure

practices was the same as that resulting from measurement practices in forty four countries using data from surveys administered by Price Waterhouse in 1973 and 1975. The results show that groupings based on disclosure practices were different from those based on measurement practices whereas environmental variables associated with both sets of groupings.

Similar to Frank (1979) and Nair and Frank (1980), Nobes (1981) reiterated his doubts about the classification of accounting systems based on data provided by Price Waterhouse. In his paper comment, Nobes (1981) questioned the reliability of data based on the surveys done by Price Waterhouse and listed three flaws which marred the data[16] in the survey of 1973. Nobes (1983) expressed another criticism regarding the differences between the UK and the USA. He identified nine factors influencing accounting measurement practices, not disclosure practices[17], in 14 developed countries. Two of these factors were explanatory variables and the others were discriminating features of local accounting practices.

He argued that there was a difficulty in determining whether some factors were explanatory variables or discriminating practices. For example, the importance of tax variable could be an explanatory variable or a discriminating one. Because of this, he repeated his analysis adding the taxation variable to explanatory variables. The first division of countries was into two groups. The first included the UK, Australia, Netherlands, Ireland, New Zealand, the USA, and Canada. The second included most European continental countries, France, Belgium, Spain, Italy, Germany, Sweden, and Japan. It is important to bear in mind that the model proposed by Nobes (1983) is not applicable to developing countries where the economic features are different from those in developed countries.

[16] He mentioned straightforward mistakes, some answers that were misleading and inappropriate use of questions.
[17] As in Nair and Frank (1980), he differentiated between measurement accounting practices and disclosures practices.

Belkaoui (1983) examined whether political, economic, and demographic environment influenced the accounting disclosure adequacy. The proxy to capture political environment was political rights, civil liberties and political system. Economic environment was measured by five factors: Economic System, Per Capita GNP, Growth Rate of Income, government expenditures and the level of exports; whereas the population was the proxy of demographic environment. Despite the fact that he did not find significant results, he indicated the need to investigate the effect of political, economic and civil factors on accounting practices to develop a contingency theory in international accounting research. He was the first who pointed out contingency theory explicitly in the field of international accounting. In the same vein, the work by Belkaoui and Maksy (1985), which was an extension of Belkaoui's (1983), did not support the proposition that disclosure levels were influenced by economic and social environment.

In 1985, Schweikart published a paper in which he discussed the use of contingency theory in international comparative studies, this work was the most explicit discussion of employing contingency approach in international accounting literature. Based on management accounting research, Schweikart (1985) identified four environmental variables determining the accounting needs: educational, economic, political, and social environments. Schweikart (1985) suggested the application of contingency theory in countries with very similar accounting methods, decision problems and institutions reside. Because of this, Saudagaran and Diga (1999) questioned Schweikart's work in terms of its applicability in developing countries where the environments are diverse.

Prior to the aforementioned studies, the literature on comparative management accounting reveals some studies describing environmental factors influencing management accounting practices. For example, Farmer and Richman (1966) proposed an early model describing the factors shaping management accounting practices in firms. Of the factors, they identified the

external environmental factors including educational, sociocultural, legal, political, and economic factors. Building on this model, Arpan and Radebaugh (1985) discussed accounting systems in terms of the effect of economic, legal, political, educational and cultural factors on them. They concluded that economic characteristics are the most influential among the others since they not only influence the accounting practices but also other factors, such as legal, political, educational, and cultural ones. At the same time, legal, political, educational, and cultural variables influence accounting practices.

The studies presented thus far are the principal early studies in comparative international accounting that used contingency approach as a framework in an attempt to address the factors determining national accounting systems. The focus of these studies was listing the environmental variables while little attention has been given to cultural variables, which would mirror the local accounting practices. The work of Frank (1979) was the only empirical work, among those mentioned before, which investigated the effect of culture, captured by language, on accounting principles and practices.

On the other hand, Gernon and Wallace (1995) are critical of international accounting researches employing contingency theory approach in that they neglect to account for the variation in the behaviour of organisations in a specific country. Those studies downplayed the role of variables internal to entities apart from controlling for their attributes such as size. Gernon and Wallace (1995) pointed, at that time, to the need for more empirical work to examine the proposition that accounting is the product of its environment.

Returning to culture, in a discussion of the development of international accounting standards, Violet (1983) argues that culture imposes constraints on international accounting harmonisation. That is, accounting is a social institution dependent on culture and is even a product of it. Without appreciating and understanding the cultural differences across the

nations, the IASC, at that time, would not have succeeded in achieving what it was established for. Violets (1983) concluded that "the best possible system" for a country is a system that mirrors the technology and cultural factors of that country.

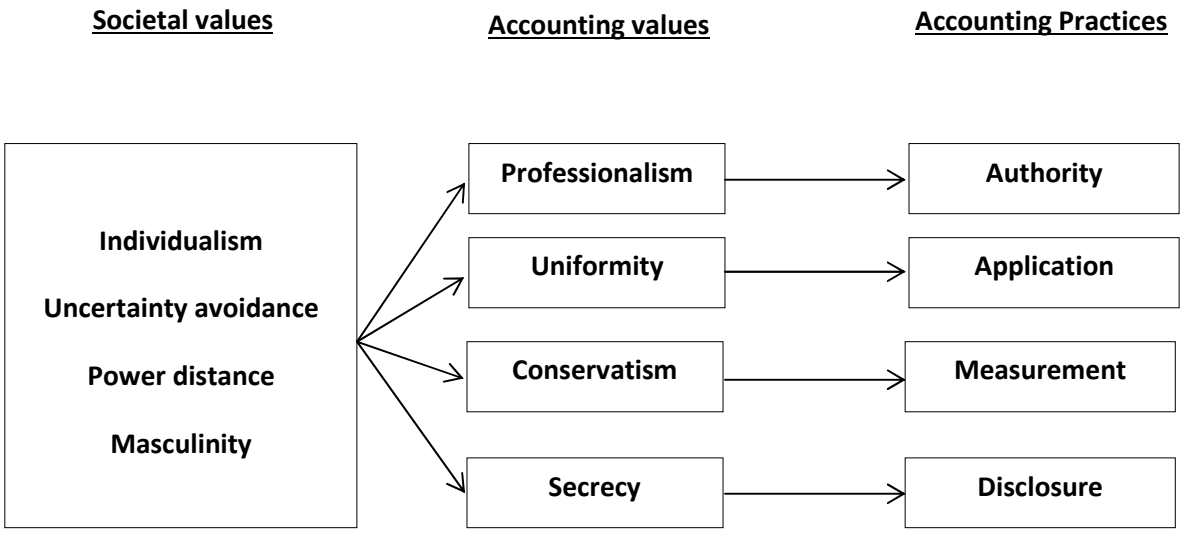
On a national basis, Harrison and McKinnon (1986) proposed a theoretical framework to reveal the properties and attributes of corporate financial reporting regulation with a focus on their change. In their framework, they incorporated culture as an essential factor that influences the change in social systems with reference to Japan in their study. The logic behind that is the effect of culture on '(1) the norms and values of such systems; and (2) the behaviour of groups in their interactions within and across systems' (p.239). Gray (1988), who criticised prior literature in that it ignored the influence of culture on accounting practices, published a key study trying to address the impact of cultural variables on accounting systems.

So far, this chapter has focused on factors proposed to determine accounting practices with no reference to culture. The following section will discuss the key studies on the possible nexus between culture and accounting systems and practices.

3.4. Culture and institutional factors models

Gray (1988) was critical of prior frameworks proposed to explain variations in accounting systems across nations in terms of the effect of culture on accounting practices. Violet (1983, p. 10) argues that accounting is a product of a culture. Gray (1988) discussed in details, building on Hofstede's (1980; 1983) work, how culture contributes to the cross-national differences in accounting systems.

Figure 3-1 The relationship between societal values, accounting values and accounting practices



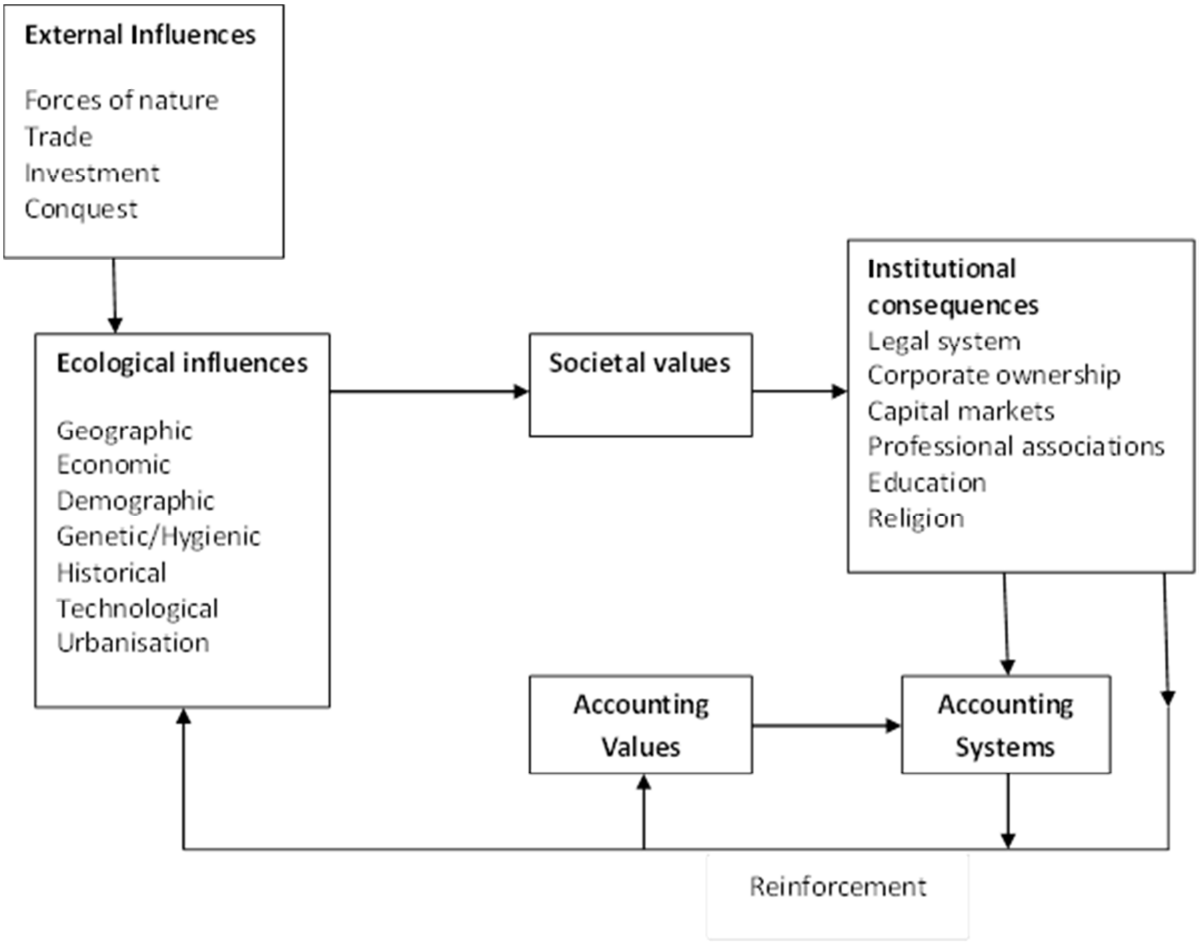
The relationship between societal values, accounting values, and accounting practices

Source: *Adapted from Perera (1989)*

Perera (1989) provided a summary of the relationship between Hofstede's cultural dimensions; Gray's accounting values and accounting practices, as in the Figure 3-1. As shown in it, professionalism is related to authority, uniformity is linked to application, conservatism influences measurement and secrecy has an impact on disclosure.

Gray (1988) proposed a model describing factors which influence accounting practices derived from Hofstede (1980, p. 27) in terms of societal culture patterns with some extension (see Figure 3-2). Societal values are influenced by ecological factors, which in turn are determined by external factors and reinforced by institutions.

Figure 3-2 Culture, accounting values and the accounting sub-culture



Source: Gray (1988) p.7

These institutions such as legal system, corporate ownership, capital markets, education, and religion are shaped by the societal values and have an influence on accounting systems at the same time. Accounting systems are also influenced by the accounting values.

Reviewing the literature of international accounting, Meek and Saudagaran (1990) listed the most commonly agreed environmental factors influencing accounting practices. They included legal system, capital market, tax laws, inflation level and political and economic ties but they excluded culture.

Doupnik and Salter (1995) took the first four variables listed by Meek and Saudagaran (1990) and added two more variables suggested by Mueller (1968), and then classified them as

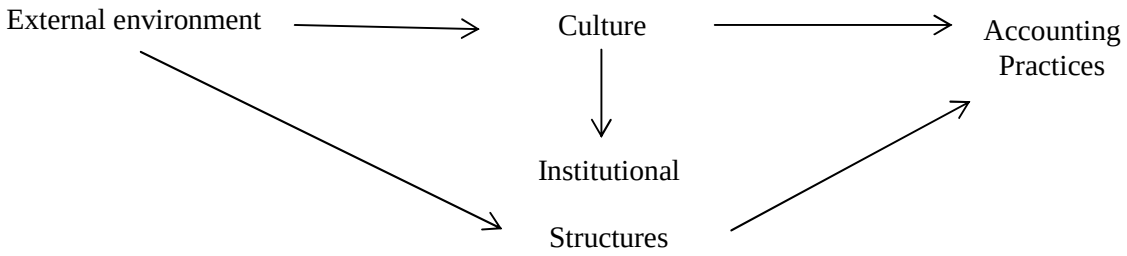
environmental factors shaping accounting practices. Those two were the level of education and the level of economic development.

In addition to environmental variables, Doupnik and Salter (1995) used Hofstede's cultural dimensions, individualism, power distance, uncertainty avoidance and Masculinity. They claimed to have proposed a general model derived from the literature in which there were three elements shaping the accounting practices, namely external environment, cultural values and institutional structure. External environments shape both the cultural values and institutional structure and furnish external stimuli leading to a change. Cultural values, in turn, impact institutions and, at the same time, control the interactions between the institutions and how they respond to the external stimuli. Cultural variables are the Hofstede cultural dimensions. Accounting systems are one of the institutions which are influenced by culture and external environments.

Nobes (1998) discussed the model of Doupnik and Salter (1995), and provided an adaption of the relationship between the three elements suggested by them. He provided a simplified figure of the Doupnik and Salter (1995) model (see Figure 3-3).

Nobes (1998) points out that there are two difficulties associated with their model. The first is the possibility of double counting since culture affects both accounting practices and institutional structures. The second is the possible interactions between the institutions, which can cause each other. Furthermore, Nobes (1998) argues that four of the institutions are not necessary in the model. Those were tax laws, level of inflation, level of education and economic development. He concludes that their model is not a general framework; instead, it is a mix of frameworks. The work of Nobes (1998) is discussed in detail in the next section.

Figure 3-3 A simplification of the Doupnik and Salter (1995) model



Source: Nobes (1998) p.163 adapted from Doupnik and Salter (1995)

Listing cultural variables under internal environment, Cooke and Wallace (1990) proposed a framework of the factors influencing the accounting regulation. These were internal environments, external environments, the accounting regulator, and the enforcement mechanisms. One can notice that there is an interaction between the variables shaping the accounting regulation. In fact, many factors included in the model were already identified in prior studies (e.g. Radebaugh, 1975; AAA, 1977) as variables influencing accounting practices. The most significant development in this model is classifying the factors into internal and external, and including two new variables represented by the accounting regulator and the enforcement mechanism. Another aspect is the dichotomy between the enforcement mechanisms and the legal system, which was classified as an internal factor.

Cooke and Wallace (1990) found that financial disclosure regulation in developed countries is influenced by internal factors such as business environment whereas the latter is less significant in developing countries. In such countries, external factors (e.g. colonial history and the impact of foreign enterprises) have greater effect on the financial disclosure regulation while the influence of internal factors is trivial.

Likewise, Saudagaran and Diga (1997a) hold the view that external environments are the determinants of financial disclosure regulation in developing countries. They provided explanation for why ASEAN countries preferred a global approach of harmonisation to regional approach.

Lawrence (1996) suggests that cultural, legal, political, and economic factors all determine the characteristics of national accounting systems. Consistent with the previous literature which stressed the importance of culture (e.g. Gray, 1988), Lawrence (1996) considered culture as the key factor among the others. He argued that culture influences the social environments, which distinguish a society from others, and for this reason, culture is the key influential factor in accounting systems while the others are part of it.

Conversely, Gernon and Wallace (1995) demonstrated the limitation of using cultural variables with specific criticism of the methodology which Hofstede used in developing his measures of culture. They concluded that Hofstede's sample suffered from limitations in terms of generalization to other populations, organisations or countries, since the dimensions are drawn from the questionnaire to managers of IBM in 67 countries. Similarly, d'Arcy (2001) is critical of applying quantitative measures of culture to accounting practices.

Nobes (1998) maintains that culture would be of direct significance in examining other issues such as behaviour of auditors, citing the work of Soeters and Schreuder (1988) as an example. Furthermore, it would be beneficial to divide countries into culturally dominated or self-sufficient nations, the thing he did when developing his model. Another major criticism of Hofstede's work, made by Baskerville (2003), is that the theoretical basis for the dimensions of culture is weak. That is, cultures do not equate with nations as there would be multiple cultures in one nation, and the variable ''culture'' tends to be a qualitative not quantitative variable and dynamic. It appeared that Hofstede was measuring socio-economic factors because of the

connections between these factors and the culture dimensions which he proposed (Baskerville, 2003). Evans (2004) employed culture to mean socio-economic, political and institutional factors.

Briefly, this section has reviewed the models that considered culture as a factor in shaping accounting practices. While Gray (1988) made a connection between Hofstede's dimensions and the accounting values he developed, some authors proposed factors determining accounting practices and labelled culture as a factor (e.g. Cooke and Wallace, 1990; Doupnik and Salter, 1995; Lawrence, 1996). However, some other authors criticised those models in terms of the limitations of Hofstede's cultural dimensions (e.g. Gernon and Wallace, 1995; Nobes, 1998). Nobes (2002) related financing and legal systems, rather than culture, to accounting, whereas Evans (2004) adopted a wider aspect of culture to mean socio-economic, political and institutional factors residing in a country. This study takes the stance that legal systems and financing systems are of more direct influence on accounting practices than culture is, which will be explained in detail in the sections that follow.

The next part of this chapter will present more recent international accounting research dealing with developing a model that explains the reasons for the variations in accounting systems from one country to another.

3.5. Recent studies

Rather than listing several variables, many of them may not actually influence accounting systems, Nobes (1998) suggests that they can boil down to a main factor that may explain the reasons for the differences in accounting systems. He built his framework on the proposition that the difference in the purpose of financial reporting is a key cause underlying the variations in the international financial reporting. He suggested that the source of finance is the key variable while the others are either related to it or do not shape the accounting systems.

The literature reveals some empirical studies on the connection between the strength of capital market (captured by market capitalization) and accounting disclosure. For example, Adhikari and Tondkar (1992) examined the requirements of stock exchange disclosure in 35 countries in terms of the effect of two types of environmental factors. The first was economic including the country's stage of development and type of economy whether agricultural, service, or industrial. The second was related to the degree of development in equity markets captured by the size of equity market, activity on equity market, and dispersion of stock ownership. They concluded that stock exchange disclosure requirements are a function of environmental factors. However, the size of equity market captured by market capitalization was found to be the only significant explanatory variable that explains the variations in the requirements of equity market disclosures.

Pushing further, the source of finance in a country is suggested to be a determining factor of the purpose for which the financial reports are produced. Traditionally, two types of financing systems have been proposed: (a) capital market based system and (b) credit based system, including either governmental or financial institutions (Zysman, 1983). In all types, companies use their profits for capital; however, the difference in the sources of external finance makes this division. In capital market system, the long-term finance sources, shares and bonds, are the important external sources. In credit system, government may administer the sources, or the financial institutions such as banks have dominance. Zysman (1983) proposed the presence of a capital market financing system in the UK and the USA, a governmental credit financing system in France and Japan, and a financial institutions credit system in Germany.

Nobes (1998) developed the classification proposed by Zysman (1983) based on whether the providers of finance were ‘insiders’ or ‘outsiders’. He defined ‘outsiders’ as those who ‘are not members of the board of directors and do not have privileged relationship with the company

(e.g., such as that enjoyed by a company's banker who is also a major shareholder)' (pp 166-167). In addition to individual shareholders, some institutions such as unit trusts and insurance companies may be labelled as outsiders. Those types of institutions own widely diversified portfolios; therefore, their holding of capital of any company is more likely to be small, and thus they are outsiders. On the other hand, 'insiders' such as families, banks, and governments hold large proportion of a company's shares; thereby, they have privileged access to accounting information.

Category I is a credit based system, more common than II, where creditors are dominant and have their own access to accounting information without the need for external audit. Category II is a credit-based system where the dominance is for outsider owners; however, this type of financing systems is not common. According to Nobes (1998) credit based systems as classified by Zysman (1983) fall into category I.

Category III is strong equity dominated by insiders who own large proportion of shares. In Category IV, financing systems are characterised by the presence of strong equity dominated by outsiders with no private access to accounting information of which published accounts are the source. Category II and III are rare while the most common financing systems can fall into either IV or I.

Nobes then suggested two types of financial accounting systems:

Type A represents the strong equity systems dominated by outsiders. In this type, financial reporting plays a key role as a source of accounting information for parties with no private access to the information. It has been suggested that earnings reported in such systems tend to be non-conservative.

Table 3-1 Financing systems

	Financing Systems	
	Strong credit	Strong equity
Insiders dominant	I	III
Outsiders dominant	II	IV

Source: Nobes (1998) p.166

Type B represents the strong credit systems dominated by insiders. In this type, insiders have their private access to accounting information thereby financial reporting is of less importance in comparison with that in type A. In contrast to type A, earnings reported tend to be conservative[18].

Financial accounting in outsider systems has developed to fulfil the needs of finance providers, whereas with the insider systems there is no apparent need for financial reporting to provide information as is required under outsiders systems.

Besides the financing system, Nobes (1998) suggested that colonial inheritance is a relevant factor in explaining the differences in international accounting systems. This argument has its roots in the literature represented by spheres of influence, the variable on which Seidler (1967) classified accounting systems across countries. The influence of colonialism can be addressed by looking at whether countries are culturally dominated.

Based on this, Nobes divided countries into two groups: the first represents the culturally self-sufficient countries, and the second represents the culturally dominated countries. Culturally dominated countries may use the accounting systems applied in the dominant countries regardless of their appropriateness to their local environment as indicated by Hove (1986). That

[18] Watts (2003) argue that with the threat of shareholders litigation, managers and auditors have the motives to report conservative earnings in an attempt to escape the litigation costs. The legal systems, evolving to impose constraints on opportunistic overpayments to the parties interested in the firm such as managers, explain the asymmetry in litigation costs.

is, one of the ways of transferring accounting technologies of developed countries to less developed countries was colonialism.

With respect to invasions, similar to colonialism, they may influence the accounting systems as those in France, Germany and Japan. However, the effect of invasion on accounting would fade with the departure of the invader in case that the foreign accounting systems were not suitable for the needs of the host country.

As explained earlier, Nobes (1998) diminished the importance of culture, as measured by Hofstede and proposed by Gray, in shaping accounting systems; rather, he suggested employing culture to examine its association with other issues such as behaviour of auditors. In addition, he suggested that culture can explain the differences in capital markets across nations instead of being itself a determinant factor as to how the accounting systems differ. He assumed that some cultures bring about strong capital market with outside capital providers while some others do not.

Nobes (1998) concludes that in culturally independent countries, the strength of capital market is the driver of accounting system, whereas in culturally dependent countries, culture influences the financial reporting systems. He excluded the other factors because they either do not explain the differences in accounting practices or they result from the capital market or at least are linked to the market. For example, tax does not explain the differences in accounting practices between type A and type B; rather, it is of significance to explain the differences in accounting practices within type B. This can result from the connection between accounting practices and tax practices in type B.

Another issue is the difficulty in measuring some factors even though they may be the reasons for the differences in capital market.

3.6. IFRS era

Before IFRS adoption, the attention of international accounting writers was focused on listing the factors that would lead to different accounting systems across the countries. To that end, many factors were proposed to explain the differences in international accounting systems regardless of what the accounting system meant, de jure rules or de facto practices. After the arrival of IFRS in many countries especially in the EU in 2005, attention has turned to the factors influencing the compliance with IFRS across the nations mandating IFRS application.

To propose a general model of the factors influencing the conformity with IFRS across the adopting countries, it would be useful to focus on the primary factors that would cause the departure from the spirit of the standards. As Nobes (1998) indicated in his early study, the purpose of financial reporting is the main factor in explaining the differences in accounting systems; the same is applicable after IFRS adoption. That is, financial reporting prepared for outsiders would be of different quality to that prepared for insiders.

In the case of IFRS adoption, another factor of significance is investor protection, which is itself enhanced by the enforcement of IFRS. The enforcement of IFRS is of vital importance as the IASB is a private organisation without power to enforce any issues. This task is for local authorities, which differ from one country to another in terms of their effectiveness in enforcing the rules. These factors will be explained in detail later after illustrating the key studies that have attempted to explain the possible factors shaping the outcomes of adopting IFRS across different countries.

Most cited work after IFRS adoption (see, for example, Nobes, 2006; Soderstrom and Sun, 2007; Kvaal and Nobes, 2010; Nobes, 2011a; Nobes, 2011b; Nobes, 2013) has attempted to conceptualize or test the potential reasons for the variation in accounting practices across the nations enforcing IFRS.

3.6.1. Financing system

As mentioned earlier, financing system, or the strength of capital market, has been suggested as a determinant factor of accounting practices before the adoption of IFRS since the purpose of financial reporting in shareholders outsiders systems is different from that in insiders. Since 2005, both the UK (outsiders) and Germany (insiders) have required listed companies to use IFRS in their consolidated financial statements in accordance with EU Regulation. This raises questions on the continuation of the differences in accounting practices after IFRS adoption in such countries with different strength of capital markets.

Nobes (2006) points out that the compliance with IFRS among German companies, after the mandatory adoption, may not be as presumed as a consequence of continuing the practices associated with insider financing systems. The practices of companies in insider financing systems may not change towards producing financial statements that meet the general purpose of financial reporting; instead, the traditional culture would remain in effect especially with the presence of weak enforcement. Given the enforcement of IFRS is a national matter, a variance in the compliance with IFRS might be present between the UK and Germany, where the enforcement of accounting standards is weaker than that in the UK as suggested by La Porta et al. (1997).

3.6.2. Legal system

In relation to the strength of capital market, La Porta et al. (1997; 1998) demonstrated a significant association between strong capital markets and common law countries, where investor protection is stronger than in law code countries. The dichotomy between common law countries and code law countries reflects the differences in monitoring and enforcement (Nobes, 2006). National regulators take the responsibility for monitoring and enforcing IFRS; therefore, legal system may still influence accounting practices after the adoption of IFRS. For

this reason, the compliance with IFRS among German companies putatively adopting of IFRS would be lower than that among companies in the UK. To put it differently, the effect of legal system on accounting practices in the post IFRS adoption era would persist through the strength of investor protection, and monitoring and enforcement of IFRS rules.

3.6.3. Tax

Nobes (2006) proposed taxation as a third possible factor causing the differences in international accounting standards after IFRS adoption. In an earlier study, Nobes (1998) argued that in the absence of strong capital market where accounting serves the needs of shareholders, the purpose of accounting is for taxation.

Germany does not permit IFRS in the standalone financial reporting; instead, the German GAAP is applied in the preparation of unconsolidated financial reporting to calculate the taxable income. Nobes (2006) raises the issue that German companies may apply the same principles of unconsolidated reporting when preparing consolidated statements. Even in the UK, where unconsolidated financial statements can be prepared in accordance with IFRS, companies tend to recognise intangibles because of their tax implications. In the preparation of unconsolidated statements, companies tend to interpret intangibles based on the considerable judgment provided by the IFRS rules in an attempt to minimize capitalization and thus tax. Such practices may find their way into the consolidated financial statements as well. However, to alleviate the effect of taxation on accounting practices, the presence of strong investor protection and enforcement—the two factors that are associated with strong equity market—is necessary.

From the previous discussion, it can be proposed that the effect of taxation on accounting practices after the adoption of IFRS can be captured by the strength of capital market due to the reasons mentioned earlier in terms of the strength of investor protection and enforcement.

3.6.4. The effect of other factors after IFRS adoption

As regards culture, it has been suggested to be a determining factor of accounting practices (see, for example, Gray, 1988; Doupnik and Salter, 1995). On the other hand, Gernon and Wallace (1995) and Nobes (1998) are critical of applying Hofstede's cultural dimensions to accounting practices. Nobes (1998) asserted that culture would influence accounting practices through its effect on other factors such as finance systems, which in turn affect the practices. Again, Nobes (2006) reaffirmed that it is not necessary to test whether culture directly shapes financial reporting practices.

In addition to the aforementioned environmental factors, Nobes (2006) discussed the opportunity for differences in accounting practices resulting from IFRS. This included 'different versions of IFRS; different translations of IFRS; gaps in IFRS; overt options in IFRS; covert options, vague criteria and interpretations in IFRS; measurement estimations in IFRS; transitional or first-time issues in IFRS; and imperfect enforcement of IFRS' (p. 234).

Those eight factors would cause the variations in international accounting; nevertheless, with strong institutions such as enforcement, investor protection and strong equity market, the effect of those factors would be trivial. For example, in the case of different versions of IFRS, the differences in environments across countries would explain why some countries modify or do not fully adopt IFRS as issued by the IASB. Then, the existence of different IFRS versions is a result rather than a reason itself.

In this context, Nobes (2006) argued that the factors mentioned earlier, i.e. the financing system, legal system and taxation, may partly cause a mix of political pressures on regulators in favour of specific practices resulting in national versions of IFRS. This can be seen in the case of countries with assertive lobby groups of finance directors along with preference for leasing due to their tax implication. In such countries, regulators tend to issue interpretation on leasing

in a way that makes it less strict in terms of liability recognition (Nobes, 2006). Soderstrom and Sun (2007) maintain that political pressure has an impact on setting the accounting standards since different parties such as shareholders, managers and tax authorities exercise pressure on the regulators in a way that serves their interests.

In fact, the eight factors proposed by Nobes (2006) further emphasize the importance of strong institutions to obtain consistent financial reporting across countries putting IFRS into effect. Nobes (2006) concluded that users of financial reporting should be cautious regarding the comparability of financial reporting subsequent to IFRS implementation. Despite its improvement, the compliance with IFRS is more likely to differ due to country specific factors such as financing system, legal system and monitoring and enforcement mechanisms. In a report, Nobes (2011b) summarised the proposed reasons for international differences after the adoption of IFRS. In his report, he reconfirmed what he published in 2006 on the motives and the opportunities of the differences in IFRS accounting practices.

Empirically, Nobes (2011a) tested the accounting practices in Australia and seven other European countries in 2008-2009 requiring listed companies to use IFRS[19]. His aim was to find out whether the traditional dichotomous split of accounting practices into Anglo and European continental was still persistent in the IFRS era across those countries. This dichotomy between accounting systems has its roots in 1980s. In an earlier study before the switch to IFRS in the EU, Nobes (1983) suggested a classification of countries based on accounting practices in which the UK and Australia were in one group and most other European countries in the other. One may expect that this split is no longer valid in the case of Australia and European countries as the same accounting standards are required since 2005.

[19] The sample included Australia, Sweden, the UK, Germany, France, Spain, Netherlands, and Italy.

Interestingly, Nobes (2011a) concluded that the UK and Australia were in one group and the other six European countries in his sample were in the other based on the accounting practices of the largest listed companies. In this recent study, Netherlands fell into the European continental category whereas it was under the category with the UK and Australia in the earlier study of Nobes (1983) but it tended to be an outlier in the Anglo group at that time. There has always been a difficulty in classifying Netherlands; for example, Da Costa et al. (1978) pointed out that Netherlands could not be categorised[20].

These results suggest that the dichotomy between Anglo and European continental countries still survives in spite of the fact that these countries require listed companies to comply with IFRS in the preparation of the consolidated financial statements. If the application of IFRS had led to consistent accounting practices across different jurisdictions, the UK and Australia would not have been grouped differently from the other countries in the sample that Nobes (2011a) used. With room for judgement available in the application of IFRS, some traditional practices persisted after the adoption of IFRS, suggesting that IFRS alone is not enough to produce homogenous financial reporting.

Building on prior research that suggests the existence of national patterns after IFRS adoption (e.g. Nobes, 2006), Kvaal and Nobes (2010) investigated the presence of systematic differences in the accounting policies across five stock markets in the first year of the switch to IFRS. These five stock markets were in Australia, France, Germany, Spain, and the UK, where two versions of IFRS were present: the EU endorsed IFRS and the Australian based IFRS. They concluded that national differences in 16 IFRS policy choices still exist in such countries where IFRS is compulsory. They suggested that one of the reasons for the differences was using

[20] According to Frank (1979) Netherlands is in the U.S. group, but it is under the UK group according to Nair and Frank (1980) who used the sub-set of Frank's (1979) data.

different versions of IFRS. Furthermore, they reported that companies in these countries could continue to use pre IFRS practices extensively after the official move to IFRS.

In a recent study, Nobes (2013) draws attention to the fact that most countries alleging IFRS implementation do not enforce IFRS as issued by the IASB; instead, national versions such as Australian or EU regional versions exist. Let alone that IFRS is not required for all companies or statements where some countries mandate listed companies to use it only in consolidated financial reporting. He also pointed out to the role of language and enforcement in the survival of the differences in IFRS practices.

In their review, Soderstrom and Sun (2007) identified three determining factors of accounting quality, one of which is quality of accounting standards. In the case of compulsory use of IFRS, two factors continue to be determinants of accounting quality: legal and political system, and the incentives of financial reporting. These incentives were capital structure, financial market development, ownership structure, and tax system. Political and legal systems have a direct impact on accounting quality through the enforcement of accounting standards and an indirect one by influencing the incentives of financial reporting, which in turn affects the quality.

To avoid double counting of factors, what Soderstrom and Sun (2007) proposed can be summarised in three variables: strength of capital market, investor protection and enforcement. That is, the discussion now is on accounting practices difference across nations using the same accounting standards, more specifically IFRS.

The direct effect of legal and political systems on accounting quality is argued to exist because of the differences in legal system, i.e. common or code, in addition to enforcement. As discussed earlier, the common law countries tend to have strong investor protection and enforcement mechanisms; therefore, the effect can be captured by those two factors.

With regard to financial reporting incentives, their effect can also be captured by the aforementioned two factors, investor protection and enforcement, along with the strength of capital market. Capital structure, which is proposed to be a determinant factor according to Soderstrom and Sun (2007), is of direct relationship with financing system. In addition, developed equity market is associated with strong investor protection, whereas tax system effect can also be explained by financing system. With concentrated ownership, investor protection and enforcement can also control the opportunistic behaviour of managers.

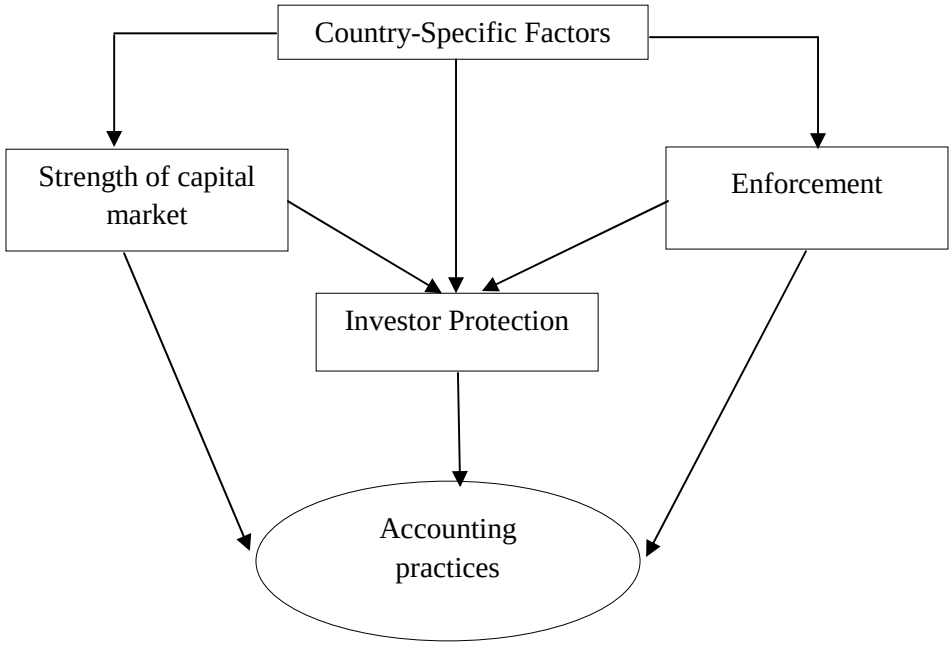
3.6.5. Country-specific factors shaping accounting practices under IFRS

Given the previous discussion in section 3.6, strength of capital market, investor protection and enforcement of accounting standards are the most relevant determinants of accounting practices after the compulsory use of IFRS. The effect of other factors such as tax system, version of IFRS, and capital structure is secondary and can be explained by the three primary aforementioned factors. At the same time, strong enforcement and strong equity market enhance the protection of shareholders, which in turn has an impact on accounting practices.

La Porta et al. (1997; 1998) argue that investor protection is stronger in outsider financing systems in comparison with that in insider financing systems. Leuz et al. (2003) suggests strong capital market complement investor protection. In large capital markets, financial reporting is a key source of information, and thus there is a higher degree of investor protection, whereas in weak capital markets, insiders such as governments, banks and families have their private access to information.

Ding et al. (2007) noted that strong investor protection curtails the differences between IFRS and national accounting standards; this gives weight to the role of other local factors in shaping accounting practices.

Figure 3-4 Country-specific factors shaping accounting practices after IFRS adoption



Hope (2003) and Burgstahler et al. (2006) attribute less compliance with accounting standards to the lax enforcement. Both Daske et al. (2008) and Li (2010) observed that the decrease in cost of capital after the introduction of IFRS was only in countries of strong legal enforcement. What is more, Christensen et al. (2013) document that liquidity changes after the switch to IFRS is significantly influenced by enforcement changes which differ across countries. Liquidity was more persuasive in five EU countries where substantive changes in reporting enforcement were made. On the other hand, countries without such changes in reporting enforcement did not witness liquidity improvements after IFRS adoption, even those having strong legal and regulatory systems[21]. Recently, Glaum et al. (2013) shows that better compliance with some accounting standards across 17 EU countries, namely IFRS3 and IAS36, are associated with strong enforcement and large equity markets.

[21] Related to this point, we argue in the next chapters that there were some changes in enforcement and other institutional factors after IFRS adoption; therefore, the traditional measures of country-specific factors could be out of date. To escape the drawbacks of the old measures, we use more recent indicators developed by World Forum and the World Bank (see chapter 5).

Regarding not including culture, Hofstede's cultural dimensions, as discussed before, have limitations in being applied to accounting, not to mention the fact that its effect can be captured through exploring the effect of financing system. Evans (2004) argues that there is no one agreed definition of culture in accounting literature, and adopts a wider aspect of culture to mean socio-economic, political and institutional factors.

The accounting practices using IFRS across different countries are contingent upon investor protection, enforcement of accounting standards and the depth of capital market (see Figure 3-4). In other words, there are no 'one size fits all' accounting standards due to the variation in the implementation of the standards across countries which have different local environments. Using the same accounting standards across the globe may lead to harmonized accounting principles; however, it may not lead to harmonized accounting practices that are the outcomes of the principles' implementation.

Exploring earnings quality under IFRS which is conditional on country-specific factors provides some insights into the role of local environments in shaping accounting practices after mandatory IFRS adoption. We expect earnings quality under IFRS to vary across countries because of the effect of country-specific factors governing the implementation of IFRS, given the fact that the IASB has no power to enforce IFRS. In essence, accounting practices in a specific country are the outcomes of its local circumstances for which local accounting standards were developed. The IASB's accounting standards are the product of western environment; more specifically Anglo-American, and as such exporting them to other environments may be less successful in unifying the accounting practices. Metaphorically, importing petrol of high quality to run a diesel engine is useless. IFRS is similar to fuel in that it would be of high quality but is not suitable to be applied in all environments due to the differences in countries' settings.

The contingency approach provides a list of variables that influence accounting practices under IFRS but it does not explain why these variables are important to produce high accounting quality. To overcome these shortcomings, we employ agency theory to provide a deeper explanation of the role of the country-specific factors in determining accounting quality under IFRS.

3.7. Agency Theory

Agency theory focuses on the relationship between the principal (owner) and the agent (manager), who is assumed to be driven by self-interest. Managers have the incentive to demonstrate that they are acting in the interests of the owners to receive higher payments, which can be lower if the principals have doubts about their behaviour. The divergence in the interests between the principal and the agent can, however, be limited by setting up a suitable incentive system and by monitoring the abnormal activities of the agent, which means incurring agency costs (Jensen and Meckling, 1976).

The wider perspective of agency theory views the firm as a "nexus of contracts" and these contracts aim to reduce the conflicts of interests of different parties who will never act other than in self-interest (Jensen and Meckling, 1976). The main two types of contracts are the reward contracts of managers to constrain their opportunistic behaviour and the contracts made between creditors and the firm (Walker, 2013).

Agency theory indicates that the conditions of uncertainty the firm operates under lead to two main types of information asymmetry between managers and external investors. These are moral hazard and adverse selection. The moral hazard problems arise when external investors cannot observe the action choices made by managers, and the adverse selection problems happen when managers hide relevant information from external investors (Walker, 2013).

Agency theory also suggests that there is a conflict between shareholders and bondholders over dividend policy (Jensen and Meckling, 1976). The risk for bondholders increases with the overpayments to shareholders which decrease the assets available to meet the fixed claims of bondholders. To mitigate such conflict, there is a need for external mechanisms that protect the interests of all parties contracting with the firm.

Another conflict, which is between the controlling shareholders and both minority shareholders and creditors, further highlights the importance of external mechanisms. Large publicly traded firms, in most countries, are held by controlling shareholders who can designate and monitor managers (La Porta et al., 1999). In that case, the central agency problem is the expropriation of minority shareholders and creditors by controlling shareholders rather than the failure of managers to serve minority shareholders and debtholders (Shleifer and Vishny, 1997).

In addition to managerial incentive plans used to align the interests of managers and investors, Bushman and Smith (2001) propose some external corporate control mechanisms that protect investors against expropriation by managers. These include outside shareholder or debtholder monitoring and securities laws. In fact, these external mechanisms are important to make sure that managers do not manage earnings in an attempt to increase their bonus. Executive compensation plans may motivate managers to engage in activities that maximise their own interests, as argued by Jensen and Meckling (1976).

With the adoption of IFRS across countries, stronger protection of investors (shareholders and debtholders) is necessary to yield better quality financial reporting. Accounting quality under IFRS in countries with weak investor protection would be poor because managers can use their financial reporting discretion to conceal their activities, and controlling shareholders may expropriate the minority shareholders and debtholders. This is of particular importance given the fact that IFRS are principle-based accounting standards.

Similarly, with poor enforcement of accounting standards, managers may not comply with IFRS; instead, they may claim to adopt IFRS while implementing accounting practices that increase their compensation. The Committee of European Securities Regulators (CESR) note that the purpose of the enforcement of standards is "to protect investors and promote market confidence by contributing to the transparency of financial information relevant to the investors' decision making process" (CESR, 2003, p.4). As mentioned before, the IASB has no power to enforce IFRS but it is the responsibility of national authorities; therefore, accounting quality may differ across countries adopting IFRS. Accounting quality under IFRS may be better with more efficient enforcement as it limits the managers' ability to depart from the spirits of the standards given the fact that they act in their self-interests.

General-purpose financial reports aim to provide useful information to existing and potential investors, lenders and other creditors (IASB, 2010). They contribute to reducing the information asymmetry between managers and external investors and thus decreasing the moral hazard and adverse selection problems. The strength of capital markets has an influence on the demand for financial reporting. In strong capital markets, shareholders are the source of finance, therefore, the aim of financial reporting is to provide information about the economic reality of the entity. In contrast, in weak capital markets, the providers of finance, such as families, banks and governments, have access to inside information and thus the demand for financial reporting is not as in strong capital markets. This has an impact on the quality of financial reporting in that the demand for financial reporting limits the opportunistic behaviour of managers. Accounting quality under IFRS would be higher in large capital markets due to the demand for financial reporting by shareholders to decrease the information asymmetry and consequently alleviate moral hazard and adverse selection problems.

It is worth mentioning that creditors would prefer specific attributes of accounting which are different from those preferred by shareholders. As mentioned before, there is a conflict between

shareholders and creditors who may prefer more conservative earnings than shareholders do. Hence, the effect of capital market on conservatism may not be significant but the size of debt market is. Indeed, Ball et al. (2008) conclude that the debt markets are the ultimate source of the demand for conditional conservatism. In section 4.4, we provided detailed explanation of the difference in accounting quality from the contracting perspective and the equity valuation perspective.

3.8. Conclusion

This chapter has described the causes of international differences in accounting practices before the adoption of IFRS and whether they persist after IFRS adoption. It went back to the emergence of the international accounting in 1960s showing the early studies in this area. Then it moved to the IFRS era in an attempt to determine the primary determinants of accounting practices based on the key studies on international accounting systems. Three main factors still influence accounting practices after the mandatory use of IFRS. These are strength of capital market, investor protection, and enforcement. Finally, it discussed agency theory which provides an explanation of how country-specific factors influence accounting quality under IFRS.

The next chapter presents prior empirical research on earnings quality metrics, earnings management, conservatism and value relevance. By doing so, the gap in the literature of earnings quality is identified, and then hypotheses are formulated based on what is discussed in the present chapter and the next chapter.

Chapter 4 Literature Review

4.1. Introduction

This chapter follows on from the previous chapter that outlined the debate and discussion surrounding international accounting. In this thesis, we are specifically looking at the effectiveness of international accounting harmonisation, the merits of which have been extolled by Ball (2006) among others, given the context of the variability of settings in different countries, as measured by earnings quality. In the preceding chapter, it has been argued that investor protection, enforcement of accounting standards and strength of capital market determine accounting practices under IFRS. Accounting practices can be in the form of measurement practices, financial information disclosure, or accounting standards implementation. In this thesis, we argue that, under IFRS, earnings quality, which is shaped by measurement practices, is contingent upon country-specific factors. We improve on prior work by focusing on the effect of country-specific factors accounting quality under IFRS across 23 countries between 2007 and 2010. To that end, we investigate how country-specific factors shape not only accruals earnings management but also real earnings management. This is important because mangers may switch to take real actions in a bid to overstate earnings. We also explore how country-specific factors determine earnings quality from contracting perspective and equity valuation perspective at the same time, employing conservatism and value relevance to capture earnings quality.

The purpose of this chapter is to review recent research into accounting quality captured by earnings management, conservatism and value relevance under IFRS. It begins with a brief overview of the definition of accounting quality in section 2. This is followed by section 3, earnings management. Section 4 moves on to describe conservatism and value relevance. Section 5 is devoted to discuss conservatism in

detail. Section 6 presents prior literature on value relevance. Section 7 provides definitions of country-specific factors. Section 8 presents the research hypotheses. Section 9 concludes the chapter.

4.2. Accounting quality

Quality of accounting information is of key importance to different users of financial reporting as it is presumed to be the source of information for decision-making purposes such as investment and contracting decisions. Accounting information of high quality is deemed to improve transparency and reduce information asymmetry (Watts and Zimmerman, 1986). For accounting standards setters, quality of financial reporting may indirectly mirror quality of accounting standards (Schipper and Vincent, 2003).

The 'Accounting quality' term is a broad concept that is difficult to define, let alone to measure. Prior studies developed several metrics to measure accounting quality using earnings and earnings components. In a survey conducted by Graham et al. (2005), earnings have been ranked as the most important measure, even more important than the cash flows. Earnings are the cornerstone of the compensation contracts and debt agreements. In the case of overstated earnings, income based compensation schemes induce overstated compensation to managers causing wealth transfers. Similarly, overstated earnings might fool the lenders due to not depicting solvency accurately (Schipper and Vincent, 2003).

As the metrics developed to capture accounting quality were based on earnings, the term 'earnings quality' has been used instead. The literature does not provide a clear-cut definition of earnings quality. For example, Sloan (1996) holds the view that earnings are of high quality when their operating cash flow component constitutes the principal part, and are of low quality if their accruals component constitutes the main part.

Penman and Zhang (2002) consider earnings to be of high quality if they reflect future earnings, in which case the sustainable earnings refer to less opportunity for earnings management. On the other hand, non-sustainable earnings are of poor quality with greater opportunity to manage earnings as in the case of hidden reserves. However, managers could engage in earnings management activities to avoid volatile earnings.

Dechow and Dichev (2002) document earnings quality as the strength of current accruals to explain past, current, and future cash flows. They proposed a model to measure earnings quality by regressing current accruals on past, current and future cash flows where the standard deviation from their model is the metric of earnings quality. To examine the relationship between auditor tenure and earnings quality, Myers et al. (2003) employed accruals quality metrics as a measure of earnings quality.

Ball and Shivakumar (2005) interpreted reporting quality as the usefulness of financial statements to all different parties contracting with the firm such as investors, managers, and creditors. They investigated conservatism as a dimension of earnings quality.

Barth et al. (2008) did not provide a definition of accounting quality; rather, they employed three metrics including earnings management, timely loss recognition and value relevance to capture accounting quality, or, earnings quality. Similarly, Houqe et al. (2012) operationalised the earnings management metric as a proxy of earnings quality. In a recent study, Ahmed et al. (2013) recognised there was no agreed definition of earnings quality, and used three metrics including earnings aggressiveness, earnings smoothing and earnings management towards targets as proxies for earnings quality.

In their review of the literature on earnings quality and its determinants, Dechow et al. (2010, p.344) assume that higher quality earnings "provide more information about the features of a firm's financial performance that are relevant to a specific decision made by specific decision-

maker". Based on this definition, earnings quality depends on decision-making context. Earnings 'quality' means different things to different stakeholders; perhaps, different country-specific factors drive different 'quality' earnings, particularly when in combination with IFRS adoption.

In general, prior research concerned with accounting quality has characterised several dimensions that reflect quality of reported earnings and these are divided into two main types: Accounting based attributes and Market based attributes. Accounting information is used to measure accounting based attributes while the market based attributes are measured by using both accounting and market data. Francis et al. (2004) identified seven dimensions of earnings quality: four accounting based dimensions including accrual quality, smoothness, persistence, and predictability, and three market based measures including value relevance, conservatism[22] and timeliness.

This thesis employs three dimensions to measure earnings quality, namely earnings management, conservatism and value relevance. Earnings management may provide inferences for both contracting and investment decisions while conservatism may be useful for contracting decisions and value relevance for investment decisions. In the section that follows, earnings management is discussed.

4.3. Earnings management

4.3.1. Definition and the motives for earnings management

It is necessary here to clarify exactly what is meant by earnings management. An early definition of earnings management provided by Schipper (1989) referred to the deliberate intervention in financial reporting in purpose of achieving private gains.

[22] Conservatism can be measured by both market-based models and accounting-based models.

A further definition is given by Healy and Wahlen (1999, p.368), who state that 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.

The above definitions make the use of judgment in financial reporting conditional on the managerial intent to determine whether there is earnings management or not, the characteristic which is difficult to ascertain.

Taking a different perspective, Walker (2013) defines earnings management[23] as the use of managerial discretion over (within GAAP) accounting choices, earnings reporting choices, and real economic decisions to influence how underlying economic events are reflected in one or more measures of earnings. The last definition refers to both accounting and economic activities taken to manage earnings with no indication of the managerial intent, and excludes accounting fraudulent reporting that violates GAAP.

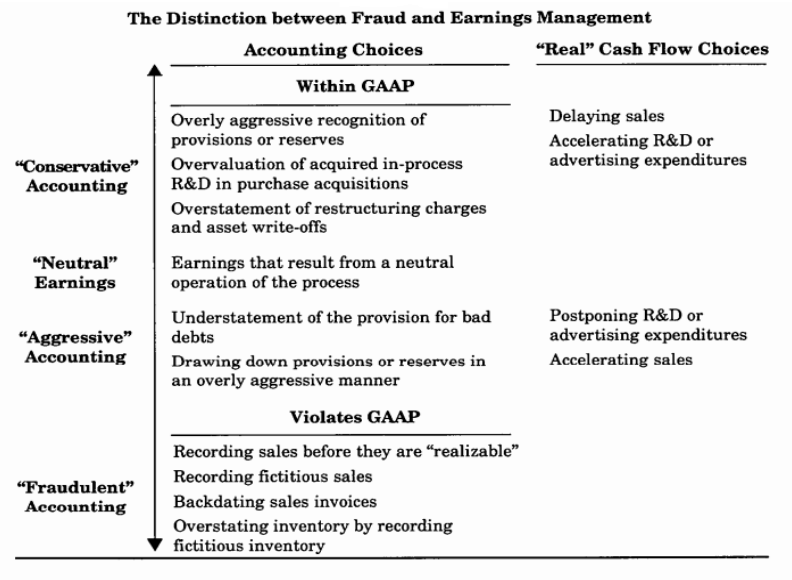
A question that needs to be asked, however, is, should we consider earnings management as fraud? In the literature 'fraudulent financial reporting' and 'earnings management' are defined as subgroups of 'earnings manipulation'. Both fraud and earnings management involve discretionary accruals management; hence, there is a fine line between them (Rosner, 2003)[24].

Dechow and Skinner (2000) made a distinction between acceptable discretion within GAAP, which would lead to conservative accounting, neutral earnings or aggressive accounting, and unacceptable discretion that violates GAAP, in which case it leads to fraud accounting (see Figure 4-1). On the other hand, earnings can be managed via real cash flow choices to manage

[23] According to Walker (2013), earnings smoothing is one of many forms of earnings management.
[24] Rosner, (2003) distinguishes between earnings management, income-increasing earnings manipulation and fraud. Earnings management is the immaterial earnings manipulation/within the boundaries of GAAP while Income-increasing, manipulation is the material earnings overstatements. Fraud is the material misstatements with 'intent to deceive'.

earnings downwards by delaying sales, accelerating some expenses, or upwards by accelerating sales and postponing some expenses, which cannot be considered as fraud accounting.

Figure 4-1 The distinction between fraud and earnings management



Source: Dechow and Skinner (2000) p.239

Managers may manage earnings upwards (increasing earnings) or downwards (decreasing earnings), which is subject to some incentives. The main two motives to manage earnings upwards are contracting motives and capital market motives.

As regard to the first motive, the aim is to achieve contractual gains such as management compensation contracts or other contracts based on reported earnings. The agency relationships between the managers and stakeholders can result in some earnings management practices. Several empirical studies provide evidence consistent with the intuition that managers manage earnings to increase their earnings based bonus (e.g. Guidry et al., 1999; Holthausen et al., 1995). Others concluded a relationship between earnings management and the avoidance of debt covenants violations (e.g. Dichev and Skinner, 2002).

The second motive is influencing information released to outsiders such as investors and information intermediaries as this information is used to form perceptions of firm risk or expectations of future cash flows (Walker, 2013). For instance, increasing earnings has been found to be consistent with security issues, initial public offerings (Teoh et al., 1998) and seasoned equity offerings (Rangan, 1998) in addition to stock financed acquisitions (Erickson and Wang, 1999; Louis, 2004). Mangers are also likely to manage earnings upwards in an attempt to avoid losses or earnings declines or to meet market expectations (Burgstahler and Dichev, 1997; Degeorge et al., 1999; Ayers et al., 2006).

On the other hand, political cost hypothesis of positive accounting theory, according to Watts and Zimmerman (1986), indicates that firms, which are large and publically visible, tend to use income-decreasing strategies to escape scrutiny and regulations. For instance, banks and utilities may manage earnings downwards to avoid harsh taxes and regulations (Walker, 2013)[25].

Turning to prior studies on earnings management, two main streams of literature are relevant to this study. The first includes studies that investigate earnings management in a specific country after IFRS adoption. The second includes comparative studies on earnings management.

4.3.2. Single country studies

Single country studies on earnings management after IFRS adoption would show indirectly the importance of local environments to secure the compliance with the standards, rather than continuing national accounting practices, by exploring whether the move to IFRS had resulted in better quality. If the adoption of IFRS did not lead to better accounting quality, the focus should be on the effect of local factors governing the implementation and enforcement of IFRS.

[25] I dropped banks and utilities from the sample, see section 5.3.

Van tendeloo and Vanstraelen (2005) examined whether there were differences in earnings management between German companies that had adopted IFRS voluntarily and those that had used German GAAP over the period from 1999 to 2001. They found no difference in earnings management between the two groups. They attributed the results to the low investor protection in Germany, a code law country.

Van der Meulen et al. (2007) tested the differences in earnings quality of two groups of German New Market firms from 2000 to 2002; the first applied IFRS, the second adopted US GAAP. Four metrics were investigated: two accounting-based earnings attributes, accrual quality and predictability, and two market-based earnings attributes, timeliness and value relevance. Accrual quality, timeliness, and value relevance were found similar under IFRS and US GAAP whereas earnings under US GAAP revealed better predictability.

Zéghal et al. (2011) examined the effect of mandatory IAS/IFRS adoption on earnings management in France from 2003 through 2006. The effect of six factors on earnings management was also investigated. These factors were the separation of roles of Chairman and CEO of the board, the existence of block shareholders, the existence of an independent audit committee , the efficiency and independence of the board of directors, the listing on foreign financial markets and the quality of the external audit. The findings revealed that IAS/IFRS is correlated with a decrease in earnings management. The level of earnings management has declined after mandatory IAS/IFRS adoption for firms which depended on foreign financial markets and those of good corporate governance. The existence of block shareholders, the existence of an independent audit committee, the efficiency and the independence of the board of directors, the listing on foreign financial markets, and the quality of the external audit were all found to be important factors for IAS/IFRS enforcement in France.

However, Paananen (2008), who investigated whether accounting quality improved after mandatory IFRS adoption using Swedish publicly listed firms from 2003 to 2006, found no such improvement in earnings quality. Following Barth et al. (2008), managing earnings toward targets, earnings smoothing, value relevance and timely loss recognition were used as proxies for measuring earnings quality. Interestingly, Paananen (2008) provided evidence that earnings quality declined after implementing IFRS in Sweden, particularly for the committed adopters.

Similarly, Paananen and Lin (2009) studied the development of accounting quality under IAS and IFRS over time among German companies from 2000 to 2006. Following prior research, they operationalized accounting quality with value relevance, earnings smoothing and timely loss recognition metrics. The findings suggested a decline in accounting quality after mandatory IFRS adoption in Germany.

Christensen et al. (2015) documented less earnings management, higher value relevance, and higher timely loss recognition in the financial reporting of German companies that adopted IFRS voluntarily before 2005. However, no such improvements were found in the financial reporting of German companies that were obliged to comply with IFRS when the latter became mandatory in 2005. Drawing on their findings, they concluded that the adoption of IFRS might not lead to better earnings quality. They also concluded that managerial incentives govern the outcomes of IFRS adoption. An interesting finding was that the companies, which did not adopt IFRS until it became compulsory, had insider characteristics, which would explain the differences in reporting incentives. In fact, their conclusions further indicate the importance of existence of strong institutional settings to obtain high quality earnings across the countries. Not to forget that the capital market in Germany falls into the insider type as opposed to the outsider. In other words, earnings quality across counties enforcing IFRS is not consistent due to the effect of country specific factors. This result is similar to that found by Daske et al.

(2008) in terms of the effects of capital market that were greater in the firms that adopted IFRS voluntarily rather than mandatorily.

The results of the effect of voluntary IFRS adoption on earnings quality might not apply to mandatory IFRS adoption because in the first case the firms have incentives to adopt the standards to enhance the quality of their financial reporting. On the contrary, when firms are obliged to adopt IFRS, it is possible that they do not comply with these standards especially in the countries with low investor protection, weak enforcement, and weak stock markets. Soderstom and Sun (2007, p.695) stated that "one cannot compare their conclusions of studies in settings where adoption is mandatory to studies where adoption is voluntary or optional".

Given that IFRS adoption across countries aims to achieve uniformity in accounting practices, comparative studies on the effect of IFRS adoption on earnings quality would be more useful than single country studies. In multi-country studies, the effect of local environments on accounting practices can be examined to provide some insights whether the adoption of IFRS is of the same outcomes across countries.

4.3.3. Multi country studies

Two streams of comparative studies are relevant to our study. The first is the studies that examined the relationship between earnings quality and institutional factors. The second is the cross-countries studies on earnings quality and IFRS adoption.

The first comparative study on earnings quality and institutional factors represented by earnings management was by Leuz et al. (2003), who concluded that earnings management was lower in countries with strong investor protection, low ownership concentration, and large capital market. Before Leuz et al. (2003), Ball et al. (2000) and Ball et al. (2003) pointed out to the importance of institutions in determining reported earnings. Bushman et al. (2004) noted that

corporate transparency is determined by legal and political factors. While political/judicial system shapes governance transparency, political economy determines financial transparency. Francis and Wang (2008) found that earnings quality is higher when investor protection is stronger providing that firms have a well-known international Big4 auditor. Burgstahler et al. (2006) reported that private firms were more likely to manage earnings than public firms, whereas both types of firms engaged in less earnings management with strong legal systems.

Employing three earnings quality metrics, namely earnings management, timely loss recognition and value relevance, Barth et al. (2008) examined the effect of IFRS adoption on the quality of financial reporting by comparing earnings quality metrics for firms using non-U.S. domestic standards and firms adopting IFRS across 21 countries. They used data from 327 firms that adopted IFRS between 1994 and 2003, when the adoption of IFRS was voluntary in the sample countries. This study provided evidence that firms applying IFRS revealed less earnings management, more value relevance of accounting amounts, and more timely loss recognition than did matched sample firms adopting non-U.S. domestic accounting standards. Despite the fact that they used research design features to alleviate the effect of both the change in the firm's incentives and economic environment, they pointed out that those two factors might be the reasons for earnings quality improvement, not the accounting standards. They did not, unlike the current study, test the effect of these factors on accounting quality.

Jeanjean and Stolowy (2008) investigated the effect of compulsory IFRS adoption on earnings management by using 1,146 firm-year observations from France, the United Kingdom and Australia from 2005 to 2006. They provided evidence that earnings management in these countries did not decrease after compulsory IFRS adoption, and even increased in France. That is, national institutional factors and management incentives play an important role in shaping financial reporting characteristics, not only accounting standards. They suggested that IASB,

the EC, and SEC should focus on harmonizing institutional factors and incentives along with accounting standards.

Capkun et al. (2012) re-examined whether mandatory IFRS application facilitated or deterred earnings smoothing across 29 countries from 1994 through 2009. They argued that international accounting standards changed significantly from the early voluntary adoption era to the compulsory adoption year in Europe in 2005. That is, revised IAS and new IFRS allow more flexibility in choosing alternative accounting methods in comparison with the earlier IAS. They posited that this flexibility induced greater earnings smoothing under current IFRS. Consistent with their hypothesis, they found that earnings smoothing increased in post 2005 compared to pre 2005 for early adopters, late voluntary adopters and mandatory adopters in the countries where IFRS were not permitted before.

Callao and Jarne (2010) studied whether IFRS adoption across 11 European countries increased or decreased earnings management. They used data for the periods 2003 and 2004 to study discretionary accruals before IFRS adoption, and 2005 and 2006 for the post IFRS adoption. They also examined the effect of firms' characteristics and country institutional factors on discretionary accruals before and after IFRS application. The results indicated an increase in earnings management after implementing IFRS across Europe. For the effect of factors in explaining earnings management, firm size and leverage were found to be positively associated with earnings management before and after the IFRS adoption era while investor protection and legal system were found to be negatively associated with earnings management in both eras. Based on the latter findings, it was concluded that the differences in the level of earnings management before and after IFRS adoption can be due to existence of some room for manipulation in IFRS compared to domestic accounting standards.

Chen et al. (2010) studied earnings quality before and after mandatory IFRS adoption in 2005 across 15 EU countries using five quality metrics: earnings smoothing, managing earnings toward targets, magnitude of cross-sectional absolute discretionary accruals, accruals quality and timely loss recognition. The pre-adoption period was 2000-2004, and 2005-2007 was the adoption period. Their study focused on the adoption of IFRS taking the first years of adoption up to 2007 and using a sample of 15 EU countries. Further, they compared the medians and means of some institutional factors before and after the adoption to infer whether they had an effect on the quality[26]. The results showed improvements in the majority of quality indicators after applying IFRS in the EU. That is, there were a lower magnitude of absolute discretionary accruals, less managing earnings towards the target, and higher accruals quality. However, the findings also revealed that firms recognized large losses in less timely manner and engaged in more earnings smoothing in the post IFRS periods. It was also concluded that the improvements in earnings quality was attributable to IFRS adopting rather than to the changes in business environment factors, institutional features of capital markets, and other managerial incentives. They inferred that the improvement due to the IFRS adoption was because the mean (median) values for most institutional factors they used were the same before and after the adoption.

Houqe et al. (2012) investigated the effect of compulsory IFRS application and investor protection on quality of financial reporting across forty-six countries. They used signed discretionary accruals as a proxy of earnings management for the period from 1998 to 2007. The results indicated an improvement in earnings quality in the post IFRS adoption era in the countries of stronger investor protection. These findings draw regulators' attention to the importance of designing mechanisms that control managers' earnings management practices along with issuing high quality accounting standards.

[26] These factors included the Change in: Confidence in the Quality of Business Regulation in a Country, Confidence in the Quality of Contract Enforcement, Control of Fraud in Financial Reporting, the Degree of Freedom of Information, Political Stability, Managers' Confidence in Government Effectiveness, Overall Financial Reporting Environment, and Political Incentives for Earnings Management.

More recently, Ahmed et al. (2013) provided evidence of the introductory effects of compulsory IFRS adoption on accounting quality across 20 countries that adopted IFRS mandatorily in 2005 compared with a benchmark group of companies from 15 countries that did not apply IFRS. They used data from 2002 to 2004 for pre IFRS adoption and data from 2006 to 2007 for post IFRS adoption and dropped 2005. Earnings smoothing, earnings benchmarks, accruals aggressiveness and timely loss recognition were used as metrics to measure earnings quality. They reported an increase in income smoothing for the firms that adopted IFRS mandatorily compared with the benchmark firms. They also documented no change in managing earnings to meet benchmarks for the companies that adopted IFRS relative to benchmark companies after compulsory IFRS adoption. It was also found that there was a significant increase in aggressive reporting of accruals for IFRS companies compared with benchmark companies. With regard to timely loss recognition, they found a significant decline in the timely loss recognition relative to gain recognition for companies adopting IFRS compared with benchmark companies. Their overall findings suggest that earnings quality did not improve after mandatory IFRS adoption even with the presence of strong enforcement. They also suggest that earnings quality did not improve after mandatory IFRS adoption, in contrast to prior studies.

Investigating the effect of the financial crisis on earnings management, Filip and Raffournier (2014) concluded that there was a decrease in earnings management during the financial crisis across 16 European countries covering the period from 2006 to 2009. They used two metrics of Leuz et al.'s (2003) to measure earnings smoothing and three accruals earnings management metrics. They also investigated some institutional factors. They found that investor protection, enforcement, corporate governance, and market forces had an impact on earnings smoothing but not on accruals earnings management.

4.3.4. Reasons of the variations in the findings of prior studies

The variations in the findings of multi-country studies can be attributed to several reasons. One obvious reason is using different proxies to measure earnings management, and employing different samples across different periods.

The sample used is important when exploring the effect of IFRS adoption on earnings quality since countries differ in the way they adopted the standards. When local standards before the move towards IFRS were identical to IFRS, the adoption of IFRS may not have had an effect on earnings management. For example, local accounting standards in South Africa became the same as IFRS starting from 2003 following the harmonisation process that started in 1995. In 2005, South Africa adopted IFRS as issued by the IASB. For this reason, it is important to identify whether national accounting standards used before the introduction of IFRS were the same as IFRS but were labelled as national accounting standards, in which case IFRS adoption may not have had a significant influence on earnings quality. Another point is that in some countries IFRS was permitted only for some companies; therefore, such firms may not have experienced major differences when it became compulsory.

In relation to the point above, some countries such as Hong Kong and Singapore adopt IFRS almost word for word with a few modifications but under the name of national standards. Studies employing data from databases would consider companies using such standards to be non-adopters while in fact they use accounting standards that are almost the same as IFRS. In chapter 2, we provided an explanation of issues related to the selection of countries in the present study (more details are also provided in Chapter 5).

Most prior studies that investigated the effect of IFRS adoption on earnings management cover only the early years of adoption up to 2007. Drawing conclusions on the effect of IFRS adoption based on data covering the first years of adoption is probably not accurate. To tackle

this issue, we chose countries that adopted IFRS in 2005 or before, and dropped the first years of adoption, covering the period from 2007 to 2010 (see chapter 5). While the focus of most prior studies was on whether the adoption of IFRS decreased earnings management, the present thesis focuses on earnings management under IFRS, given the variation in countries' settings.

Walker (2013) draws our attention to the difficulty of investigating the effect of IFRS adoption on earnings management, given the possible differences in the economic circumstances before and after the adoption. For example, the global financial crisis which began in late 2007, had a significant effect on listed companies in the EU; therefore, the comparison of financial statements between post 2007 and pre IFRS adoption is probably not easy. As such, the difference in the economic circumstances between before and after the adoption is a possible reason for the variation in the findings of prior studies. Walker (2013) further refers to the difficulty in the direct comparison of financial statements in 2005 with those in later years in terms of the effects of measurement and recognition choices made at the first-time IFRS adoption. As in Garcia-Osma and Pop (2011), firms that 'clean up' their balance sheets before IFRS implementation have greater opportunities to manipulate earnings in the later years[27].

Prior empirical studies lack a theory that provides a useful account of institutional factors shaping earnings quality including earnings management. In addition, most previous studies (e.g. Leuz et al, 2003; Callao and Jarne, 2010) used La Porta et al. (1998)'s measures; however, a major problem with these kind of measures is their validity for recent data; they are probably out of date. Christensen et al. (2013) maintain that many EU member states introduced changes in enforcement along with the introduction of IFRS in 2005. For this reason, it is possible that traditional measures widely used in the literature do not mirror the real settings.

[27] The clean-up is done by eliminating accumulated accruals bloat, hence allowing greater room for accounting discretion in the subsequent years.

Our study provides a detailed explanation of the factors that would determine accounting practices before and after IFRS adoption. We provide a general model of the factors determining accounting practices (See chapter 3). In addition, measures of country-specific factors used in this thesis are adopted from the World Forum and the World Bank (see chapter 5). We also explore earnings management from 2007 to 2010 (during the financial crisis) to escape the drawbacks associated with first-time IFRS adoption and any changes in the economic circumstances before and after the adoption, focusing on the role of country-specific factors in determining earnings management under IFRS.

4.3.5. Real earnings management

Although extensive research has been carried out on accruals based earnings management, to the best of my knowledge, no single study has examined how real earnings management varies across countries that adopted IFRS mandatorily. DeFond (2010) indicated a scarcity in real earnings management research in comparison with accruals earnings management ones. The survey conducted by Graham et al. (2005) shows that managers engage in real economic actions to achieve earnings targets, for instance, delaying advertising expenditure and maintenance rather than taking accounting actions. For this reason, real earnings management has cash flow consequences and is, therefore, more costly than accruals-based earnings management. Graham et al. (2005, p. 32) find that

> 80% of survey participants report that they would decrease discretionary spending on R&D, advertising, and maintenance to meet an earnings target. More than half (55.3%) state that they would delay starting a new project to meet an earnings target, even if such a delay entailed a small sacrifice in value.

Roychowdhury (2006, p.337) defines real activities manipulation as “departures from normal operational practices, motivated by managers’ desire to mislead at least some stakeholders into believing certain financial reporting goals have been met in the normal course of operations”.

Real earnings management has not been given the same attention as accruals manipulations in that a handful of studies in the literature investigated the real actions to manage earnings (Gunny, 2005; Roychowdhury, 2006; Cohen and Zarowin, 2010; Zang, 2012). Doukakis (2014) was the first to examine the effect of mandatory IFRS adoption on both accruals and real earnings management across countries. More specifically, he examined the effect of mandatory IFRS adoption on real and accrual based earnings management across 22 European countries covering the years from 2000 to 2010. He found no significant effect of mandatory adoption on real or accrual based earnings management whereas firm level incentives shaped accounting quality. It should be noted, however, that Doukakis (2014) investigated the effect of standards, not the effect of the differences in countries settings, on real and accrual earnings management activities.

The literature provides some evidence of less accruals earnings management in countries with strong institutions but does not show whether real earnings management substitute the accruals earnings management in such cases. One can expect that in countries with strong institutions, real earnings management is more popular than accruals earnings management and vice versa. Schipper (2003) argues that firms switch to real earnings management activities with tighter standards. Ewert and Wagenhofer (2005) reported that tighter accounting standards are positively associated with better earnings quality, however, managers switch to costly real earnings management. Therefore, having the accounting standards constant, tighter institutions may cause real earnings management to be more popular than accruals management across the adopting countries.

4.3.6. The effect of firm characteristics on earnings management

Prior research hypothesises that the differences in fundamental firm characteristics and capital market incentives affect earnings management and hence there is a need to control for them

before inferring the presence of opportunistic earnings. However, the effect of control variables on accruals earnings management may differ from its effect on real earnings management.

Firm size could affect the firm's tendency to manage earnings. Albrecht and Richardson (1990) found that small firms are more motivated to smooth earnings than large firms. Large and publicly visible firms are more scrutinised by investors and regulators (Siregar and Utama, 2008), therefore, managers in large firms may not manage earnings via accruals; instead, they may prefer real activities to escape detection. For this reason, we predict a negative relationship between the size of a firm and accruals earnings management, but a positive one with real earnings management.

There is substantial evidence that firms with binding debt covenants, an indication of higher leverage, are more likely to boost earnings, to mitigate covenants violation, than firms without such closeness to debt covenants (Watts and Zimmerman, 1986). To that end, firms may use accounting methods (DeFond and Jiambalvo, 1994; Sweeney, 1994; Francis and Wang, 2008) or real activities such as asset sales (Bartov, 1993). For this reason, we predict a positive relationship between leverage and accruals earnings management but we make no such prediction between our real earnings management metrics and leverage.

Overall, growth is a potential reason to window-dress the financial statements by increasing the earnings to attract more investors. Prior research suggests that the incentive to boost earnings increases with firms' growth opportunities (e.g. Barth et al. 1999 and Skinner and Sloan, 2002). However, Richardson et al. (2005) show that growth is negatively associated with earnings management. Therefore, we made no directional prediction about the effect of growth on accruals earnings management.

The results of studies regarding the relationship between real earnings management and growth are mixed. Cohen and Zarowin (2010) and Kothari et al. (2015) provide evidence that real

earnings management activities have a negative effect on future performance. Similarly, Zhang (2008a) and Leggett et al. (2009) report a negative association between real earnings management activities and stock return performance. Only the work of Gunny (2010) finds a positive effect of real earnings management on subsequent operating performance. Therefore, a negative association between real earnings management actions and growth is predicted.

Capital market incentives may influence earnings management activities (Barton and Simko, 2002; Cohen and Zarowin, 2010; Zang, 2012). More earnings management activity is associated with a greater number of shares outstanding to beat a given per share earnings target (Zang, 2012). However, this high threshold would discourage earnings management when the target is more difficult to hit (Barton and Simko, 2002). Furthermore, Cohen and Zarowin, (2010) argue that it is not clear whether number of shares drives accruals or real earnings. Hence, we made no directional prediction about the effect of number of shares on earnings management.

Profitability may influence earnings management. Doyle et al. (2007) show that the incentives for earnings management are greater with weak performance. However, DeAngelo et al. (1994) find that maintained weak performance provides less opportunity for accounting earnings management. Therefore, we made no prediction regarding the relationship between profitability and accruals earnings management. Real earnings management can have a negative effect on future operating performance; for example, increasing current sales through giving discounts may decrease the future profits when companies return to the old prices (Gunny, 2005). For this reason, it is more likely that real earnings management is negatively associated with profitability.

4.3.7. Discussion

There is a large volume of published studies on earnings management. The early studies tried to test the motives for earnings management and their consequences. Exploring earnings quality in general, including earnings management, is a recent trend in international accounting studies. An early work by Ball et al. (2000) provided evidence that properties of accounting earnings vary across different counties because of the institutional differences in the demand for accounting income. This was followed by work of Ball et al. (2003), where they found that strong institutions were of great importance in shaping earnings quality, not only using a single body of high quality accounting standards.

Since then, several studies have begun to explore the effect of institutions on earnings management (e.g. Leuz et al., 2003; Burgstahler et al., 2006; Gassen et al., 2006; Francis and Wang, 2008). All these studies concluded that there was a significant positive relationship between local environments and accounting quality; in other words, less earnings management.

With the movement towards the adoption of IFRS, firstly voluntarily and then mandatorily, studies exploring the effect of the adoption on earnings management began to emerge. In Germany, no difference was found in earnings management under IFRS compared with other standards (e.g. Van tendeloo and Vanstraele, 2005; Van der Meulen et al., 2007). Such results could be because of the role the local factors play in the implementation of accounting standards. On an international basis, Barth et al. (2008) found that firms using IFRS across 21 countries revealed better earnings quality than did matched sample firms adopting non-U.S. domestic accounting standards. It is important to mention that the former two studies were conducted when IFRS adoption was voluntary.

The conclusions of voluntary IFRS adoption may not apply to mandatory adoption, in which case firms may not have the incentives to comply with the standards. Indeed, Christensen et al.

(2015) documented higher earnings quality in the financial reporting of German companies that adopted IFRS voluntarily, before 2005. However, no such improvements were found in the financial reporting of German companies that were obliged to comply with IFRS when it became mandatory in 2005.

Then, with the introduction of IFRS in the EU in 2005, the focus turned to investigate the effect of mandatory IFRS adoption on earnings quality in a given country (e.g. Zéghal et al., 2011; Paananen, 2008; Paananen and Lin, 2009) and across counties (Jeanjean and Stolowy, 2008; Capkun et al., 2012). Chen et al. (2010) provided evidence that earnings management was less after the mandatory IFRS adoption in Europe and this was due to the adoption of the standards. A work by Ahmed et al. (2013), however, suggests that earnings quality did not increase after mandatory IFRS adoption even in countries with strong legal enforcement.

This raises a question about the reasons for the differences in the outcomes of mandatory IFRS adoption across different countries. To answer this question, it would be useful to examine the effect of other local factors on quality.

Callao and Jarne (2010) found that strong investor protection and legal system are consistent with less earnings management before and after IFRS adoption in the EU in 2005. In a more global study, Houqe et al. (2012) found that IFRS adoption led to less earnings management in counties with strong investor protection, whereas Ahmed et al. (2013) found no improvement in earnings quality after IFRS adoption even in countries with strong legal enforcement. In another study, Filip and Raffournier (2014) came to a conclusion that earnings management was less after the financial crisis across the EU. They found that investor protection, enforcement, corporate governance, and market forces had an impact on earnings smoothing but not on accruals earnings management.

Almost all comparative papers published on earnings management employed accruals based models, smoothing models or both. The only paper, by Doukakis (2014), examined the effect of mandatory IFRS adoption on accruals and real earnings management across 22 European countries, concluding that there was no significant effect on either type of management.

The first empirical chapter in this thesis fills this gap by exploring the effect of investor protection, enforcement of accounting standards and the strength of capital market on accruals and real earnings management across 23 countries mandating IFRS[28]. While previous studies focus on the effect of IFRS adoption on earnings management, our first empirical chapter concentrates on the effect of country-specific factors on earnings management under IFRS. As all countries in the sample enforce IFRS adoption, the results may further emphasise the role of local environments in shaping accounting quality. If the adoption of IFRS alone is enough to obtain consistent accounting practices, institutions should not have an effect on accruals and real earnings management. Another benefit of exploring accruals and real earnings management is to address how companies respond to institutional factors in managing earnings if they do.

In addition, we examine the effect of country-specific factors on conservatism and value relevance together. The sections that follow provide insights on the effect of accounting conservatism on value relevance, some definitions, and a review of prior studies on conservatism and value relevance.

4.4. Conservatism and value relevance: contracting perspective and equity valuation perspective

Accounting information serves a dual purpose; it is a source for both equity valuation (valuation perspective) and for contracting (contracting perspective) (e.g. Watts and Zimmerman, 1986). The essence of information perspective of accounting can be traced back to the work of Ball

[28] See chapter 3 Theoretical Framework, which includes a justification for the selection of these three factors.

and Brown (1968) who investigated the relationship between accounting numbers and stock prices based on the assumption that accounting numbers provide information for investment decisions. As such, under valuation perspective, the function of accounting is to provide information, especially to shareholders, which is useful in assessing the market price and making investment decisions.

With the introduction of agency theory by Jensen and Meckling (1976), a new perspective of accounting information emerged which is the contracting perspective. Agency theory suggests that the firm is ‘’nexus of contracts’’ between different parties who are driven by their self-interests (Jensen and Meckling, 1976). The main contracts are the debt contracts between the firm and the creditors, and the compensation contracts made to limit the opportunistic behaviour of managers (Walker, 2013). Hence, the role of accounting information is to reduce the agency costs associated with outside financing and bonus plans and thus facilitating the contracting process. For example, creditors may require including debt covenants in debt contracts based on accounting information. The role of accounting, under contracting perspective, is to provide information that is useful in evaluating contracting settings and economizing the transactions costs.

Of accounting attributes, what is desirable from valuation perspective may not be desirable from contracting perspective. Watts (2003) and Leone et al. (2006) hold the view that earnings conservatism may be an optimal attribute from contracting perspective. With regard to value relevance, Holthausen and Watts (2001) argue that the value relevance research is of value in equity valuation perspective but this does not apply to contracting perspective and, therefore, it is of less value in measuring earnings quality. However, Barth et al. (2001) point out that value relevance measure is one of a number of different metrics of earnings quality.

The literature shows an effect of conservatism on value relevance of earnings. For example, Basu (1997) and Hayn (1995) suggest that the decline in value relevance of earnings across time can be explained by the increase in nonrecurring items and negative earnings; in other words, higher conservatism. In this case, book values become more important than earnings in explaining stock prices (Barth et al., 1996; Burgstahler and Dichev, 1997; Collins et al., 1999).

In a study exploring value relevance across 40 years from 1953 to 1993, Collins et al. (1997) found no decrease in the combined value relevance of book value and earnings; instead, there was a slight increase over time. The value relevance of book value increased while the value relevance of earnings decreased over time. They attributed the decrease in value relevance of earnings to the increase in the frequency of negative earnings, significant incidence of one-time items, and changes in intangible intensity. These findings indirectly support the argument that conservative accounting reduces the value relevance of earnings across time.

Another reason for the increase in the value relevance of book values at the expense of earnings after IFRS adoption is the increase in conservative accounting because of the fair value requirements in the standards. For example, Givoly and Hayn (2000) note more conservative accounting in the United States because of the FASB's fair value rules that require earlier recognition of expenses and losses or deferred recognition of revenues.

In a study investigating the effect of conservatism on value relevance directly, Bandyopadhyay et al. (2010) suggest a positive relationship between the reliability of earnings and the usefulness of earnings, over book values, for explaining stock prices. Earnings are deemed more reliable if they have higher predictability of future earnings. Earnings become less reliable with higher conditional conservatism. Taken together, higher conservatism leads to less reliable earnings, making the book values more useful in explaining the stock prices than the current earnings. As such, balance sheet numbers are relatively higher in value relevance compared

with income statements amounts. This is consistent with Barth (2006), who contends that accelerating the recognition of future expenses and losses reduces the ability of earnings to predict themselves while it improves the ability of earnings to predict future cash flows. The decrease in the ability of current earnings to predict future earnings makes earnings less relevant.

Heflin et al. (2014) attempted to evaluate the effect of conservatism on the usefulness of GAAP earnings for evaluation purposes. They concluded that conditional conservatism reduced the informativeness and persistence of earnings, and made the earnings less smooth. Consequently, investors preferred Street earnings that are less conservative than GAAP earnings.

Altamuro et al. (2005) found that even when earnings management incentives are high, accelerating revenue recognition is associated with higher market response. This means that either aggressive accounting is not an indication of lower quality of earnings, or the high market response is not evidence of better quality. Furthermore, Ewert and Wagenhofer (2013) pointed out that investors adjust the face value of reported earnings for interpretation purposes; for this reason, investigating the relationship between stock prices and reported earnings may not provide valid inferences.

Our study does not examine the effect of conservatism on value relevance directly; it rather tests the effect of some country specific factors on both conservatism and value relevance of book values and earnings. Investigating only one of them does not provide a full picture of earnings quality as conservatism may be desirable from contracting perspective while value relevance may be desirable from equity valuation perspective. This is another contribution we add in the second empirical chapter.

The next section moves on to present definitions of accounting conservatism in addition to a review of prior studies in this area.

4.5. Conservatism

The statement of concepts No.2, the (FASB), 1980 provides a definition of conservatism as "[a] prudent reaction to uncertainty to try to ensure that uncertainty and risks inherent in business situations are adequately considered.''

The IASB conceptual framework (1989) provides a definition of prudence as:

> the inclusion of a degree of caution in the exercise of the judgments needed in making the estimates required under conditions of uncertainty, such that assets or income are not overstated and liabilities or expenses are not understated (IASC, 1989).

According to Watts (2003), conservatism is "the differential verifiability required for recognition of profits versus losses. Its extreme form is the traditional conservatism adage: anticipate no profit, but anticipate all losses" (Watts, 2003. p.207). In general, conservatism holds that there is a comparative downward bias in accounting value to the economic value when measuring net assets.

There is a debate whether conservatism is a desirable attribute of financial statements or not. Watts (2003) relates the preference for conservatism to its constraints on managerial opportunistic behaviour, which leads to eliminating the noise and bias in accounting measures on which the contracts base. Ball et al. (2000) and Bhattacharya et al. (2003) contend that conservatism reduces the information asymmetry between managers and other parties making the financial reporting more transparent. Similarly, Ball and Shivakumar (2005) write that financial reporting prepared conservatively is of better quality and useful for contracting purposes[29].

[29] In addition to contracting, Watts (2003) provides other explanations for conservatism. Shareholders litigation may explain conservatism since the understatement of net assets reduces the expected litigations costs. Regulation and tax are other factors that may explain conservative accounting.

On the other hand, Penman and Zhang (2002) cast doubt on the benefits of the practice of conservatism in accounting in terms of the greater flexibility available to managers to manage earnings. The hidden reserves resulting from conservative accounting with investment growth lead to less predictability of current earnings for future firm performance.

The Chairman of the IASB Hans Hoogervorst (2012) maintains that "[a] systemic bias towards conservatism undermines the value of earnings as a performance indicator". He also states that prudence may create scope for opportunism in financial statements in terms of earnings management.

In the 1989 IASC's conceptual framework, prudence was identified as one of the qualitative characteristics of financial reporting. However, in 2010, the IASB and the FASB issued a revised version of the conceptual framework, dropping prudence and reliability from the desired qualitative characteristics of financial reporting. The removal of prudence from the conceptual framework was because of its conflict with neutrality, whereas the replacement of reliability with faithful representation was owing to the lack of common understanding of its meaning.

Ever since, the concept of prudence has become a controversial issue. Calls on the IASB to reintroduce prudence in the conceptual framework have persisted since the release of the framework in 2010. European politicians went as far as to threaten to cut off the funds the EU provides to the IASB unless the latter reinserts prudence in the conceptual framework (Crump, 2013).

In his speech at the FEE conference on corporate reporting of the future, Hoogervorst (2012) attributed the removal of prudence from the conceptual framework to the need to help align IFRS with US GAAP as the IASB and FASB stressed the importance of neutrality of financial reporting. He asserted that despite leaving out the concept of prudence from the conceptual

framework, it was inherent in IFRS and had a role in the development of the new standards (Hoogervorst, 2012).

Kothari et al. (2010) argue that the demand for verifiable information by both shareholders and debt holders contributes to the increase in conditional conservatism. In a recent letter in the Financial Times, a group of shareholder representatives, asset managers, and institutional investors called for restoring prudence as a guiding principle in the financial statements[30]. They pointed out that "[p]rudence ensures that performance and capital are not overstated. This in turn underpins the confidence of shareholders and lenders in companies' balance sheet strength and capital stewardship" (Quinn et al., 2015).

In response to the previous letter, Hans Hoogervorst (2015) wrote that the IASB had the intention to reintroduce prudence in the conceptual framework, though in support of neutrality not as a replacement for it. He agreed on the need to avoid the overstatements of earnings and assets, and understatements of liabilities, but he equally believed that a deliberate understatement of earnings and assets is imprudent. He reaffirmed the commitment of the IASB to setting accounting standards in which financial reporting reflects the economic reality as closely as possible (Hoogervorst, 2015).

Watts (2003) and Leone et al. (2006) maintain that earnings conservatism may be an optimal attribute from contracting perspective. O'Connell (2007) tends to support this view as he suggests that conservatism may not be beneficial from valuation perspective but it may help with assessing stewardship.

[30] The letter is signed by: Local Authority Pension Fund Forum, RPMI Railpen, Sarasin & Partners, Threadneedle Investments, GO Investment Partners, UK Shareholders Association, and Independent Director.

4.5.1. Conditional conservatism and unconditional conservatism

Authors divide conservatism into two types: conditional conservatism (timelier loss recognition), and unconditional conservatism (independent of losses) (Ball and Shivakumar, 2005).

Basu (1997) defines conditional conservatism as the tendency of accountants to follow policies accelerating recognizing bad news while taking higher degree of verification with regard to good news. Thus, it can be said that there is conditional conservatism in the financial statements when they reflect bad news quicker than good news, or when the loss recognition is timelier than gain recognition. Conditional conservatism is also referred to as event driven, news-dependent, ex post, or earnings conservatism. It can be achieved by long-lived intangible and tangible asset impairment (Ryan, 2006). Other common examples of conditional conservatism include asymmetry in gain/loss contingencies and inventory valued at the lower of cost or market (Ruch and Taylor, 2015).

Unconditional conservatism refers to the conservatism in assets values resulting from a systemic under-recognition of their accounting value by, for example, using higher depreciation rate compared to the economic rate (Ryan, 2006). Other examples of unconditional conservatism include expensing R&D costs, expensing advertising costs, and increasing the provisions related to future costs, such as the allowance for doubtful accounts (Ruch and Taylor, 2015). This form of conservatism is referred to as unconditional because it is not based on information about the performance of an asset; thereby some authors describe it as ex-ante conservatism or news-independent (e.g. Ryan, 2006).

From contracting perspective, conditional conservatism is more important than unconditional conservatism since what is required under this perspective is more timely information, which is captured by conditional conservatism (Ryan, 2006). In addition, Ball and Shivakumar (2005)

argue that unconditional conservatism does not boost the efficiency of contracting, as it does not add any new information unknown at the date of contracting.

Unconditional conservatism may interact with real earnings management activities. Managers can increase earnings via real activities such as postponing expensing or advertising costs, in which case there is less unconditional conservatism in the financial statements. With respect to the relationship between conditional conservatism and unconditional conservatism, the literature provides evidence that conditional conservatism is negatively associated with unconditional conservatism (e.g. Roychowdhury and Watts 2007). One can argue that higher conditional conservatism is associated with lower unconditional conservatism and higher real earnings management. Indeed, García Lara et al. (2012) showed that the increased conditional conservatism was associated with a decline in accruals earnings management while it was associated with an increase in real earnings management[31].

4.5.2. Single country studies

A large body of literature on conservatism has been published using samples of US companies. Some investigated the effect of conservatism on financial statements (e.g. Kim and Kross, 2005; Jackson and Liu, 2010; Chen et al., 2014). Others tested the effect on equity market users including information asymmetry (e.g. Hui et al., 2009; Kim et al., 2013), value relevance (Balachandran and Mohanram, 2011; Bandyopadhyay et al., 2010; Heflin et al., 2014), cost of equity capital (Francis et al., 2004; García Lara et al., 2011) and analysts forecasts (e.g. Pae and Thornton, 2010; Louis et al., 2014). Another set of literature on conservatism tested its effect on lenders (e.g. Zhang, 2008b) and executive compensation (Iyengar and Zampelli, 2010), and its relationship with corporate governance metrics (e.g. García Lara et al., 2009). Of these studies,

[31] Using data for US firms over the period from 1991 to 2010

studies on the effect of conservatism on earnings quality and value relevance would be more relevant to our research.

Studies on the effect of conservatism on earnings quality reveal that there is an effect of conservatism on earnings predictability of future earnings and cash flows, and value relevance.

Penman and Zhang (2002) examined the effect of conservative accounting on earnings quality using US firms from 1975 to 1997. They found that earnings were less predictable because of the hidden reserves resulting from unconditional conservatism.

In another study, Kim and Kross (2005) tested the effect of conservatism on the ability of earnings to predict future operating cash flows. The results revealed an increase in the ability of earnings to predict future operating cash flows because of the increase in conditional conservatism.

Consistent with Kim and Kross (2005), Bandyopadhyay et al. (2010) provided a broader explanation of the effect of conservatism on earnings and cash flow. They noted that conservatism increased the predictability of future cash flows based on current earnings while it reduced the predictability of future earnings. They also suggested a positive relationship between the reliability of earnings and the usefulness of earnings, over book values, for explaining stock prices. Earnings are deemed more reliable if they have higher predictability of future earnings. Earnings become less reliable with higher conditional conservatism. Taken together, higher conservatism leads to less reliable earnings, making the book values more useful in explaining the stock prices than the current earnings.

On the effect of unconditional conservatism on value relevance, Balachandran and Mohanram (2011) found that the value relevance decreased over time and the unconditional conservatism

increased over time. However, they did not find evidence that the increase in unconditional conservatism led to the decrease in the value relevance over time.

Heflin et al. (2014) attempted to evaluate the effect of conservatism on the usefulness of US GAAP earnings for valuation purposes. They concluded that conditional conservatism reduced the informativeness and persistence of earnings, and made the earnings less smooth. Consequently, investors preferred Street earnings that are less conservative than GAAP earnings for equity valuation[32].

With respect to the effect of conservatism on earnings management, Jackson and Liu (2010) demonstrated that earnings were managed using the bad debt expense to meet the targets. The unconditional conservatism allowed in treating bad debts allowances gave room to exercise earnings management.

Using data for US firms over the period from 1991 to 2010, García Lara et al. (2012) tested the effect of conditional conservatism on both accruals and real earnings management. They showed that the increased conservatism was associated with a decline in accruals earnings management while it was associated with an increase in real earnings management. Since real earnings management is costly, the benefits of conservatism represented by lower accruals earnings management should exceed the costs of the increase in real earnings management to yield a positive net effect of conservatism on earnings management. They also found that firms applying more conservative accounting are less engaged in both accruals and real earnings management; hence they drew the conclusion that conservatism curtails earnings management.

Barth et al. (2014) found that the reaction to earnings announcement is slower with higher conditional conservatism. They argued that lower information content of earnings was the

[32] There is a difference between GAAP earnings and Street earnings in that the latter are modified earnings excluding earnings components resulting from conditional conservatism, which tends to increase transitory components in GAAP earnings (in both unusual items and other items).

potential cost of conditional conservatism. The results showed that investors were unable to reconcile the negative bias in conservative earnings since firms with higher conditional conservatism experienced positive returns after the earnings announcement. Subsequent to earnings announcement, firms exercising conservative accounting revealed higher level of insider purchases owing to the investors' low reaction giving the insiders an advantage.

Briefly, the aforementioned studies examined the effect of conservatism on other attributes of earnings. Higher unconditional conservatism was associated with less predictable earnings, lower value relevance, and greater room for earnings management. Greater conditional conservatism was positively correlated with less reliable earnings (in which case book values were more useful), a decrease in the informativeness and persistence of earnings, lower accruals earnings management and higher real earnings management, and slower reaction to earnings announcements.

Another stream of literature on conservatism in a specific country emerged to examine the effect of IAS/IFRS adoption on conservatism, being one of the earnings traits.

Using data from Germany from 1998 to 2002, Hung and Subramanyam (2007) examined the effects of voluntary IFRS adoption on timeliness and conditional conservatism[33]. The evidence that income under international standards exhibits greater conditional conservatism and timeliness than income under HGB was weak[34].

[33] They examined value relevance of equity and net income as well. They did not find evidence to suggest that IAS improved the value relevance of book value and net income.
[34] HGB is Handelsgesetzbuch (Commercial Code, Germany)

In another study, Gassen and Sellhorn (2006) studied the determinants of voluntary adoption of IFRS from 1998 to 2004, and earnings quality in two groups of firms, HGB firms and IFRS firms. They found that IFRS firms were more conservative than HGB firms[35].

Paananen and Lin (2009) reported less timely loss recognition after mandatory IFRS adoption compared with voluntary IFRS adoption and IAS[36]. They attributed the decrease in earnings quality to the changes in the standards as some IAS were revised and new IFRS added. Similarly, Christensen et al. (2015) noted an increase in timely loss recognition after the voluntary adoption of IFRS in Germany whereas there was no such increase in firms that did not adopt IFRS until it became mandatory in 2005.

4.5.3. Multi country studies

An early work by Ball et al. (2000) across seven countries concluded that there was greater conservatism represented by timely loss recognition in common law countries compared with code law countries, where the litigation is not as in the common law countries[37].

In a later study, Ball et al. (2003) studied financial reporting quality captured by timely recognition of economic income in four Asian countries: Hong Kong, Malaysia, Singapore, and Thailand. The accounting standards in the UK and the US, in addition to the IAS, had substantially influenced the accounting standards in those four countries. However, the results indicate an effect of reporting incentives, which are influenced by local institutions, on timely economic recognition, particularly losses.

[35] Overall, they found earnings in IFRS firms of less predictability, more persistence and higher conservatism than in HGB firms. IFRS firms were of higher accruals quality and higher value relevance than HGB firms but the differences were insignificant.
[36] They also found less value relevance and greater earnings smoothing.
[37] Ball et al (2000) stated "Nevertheless, German accounting in particular is widely presumed to be more conservative, because German managers have unusual discretion to reduce reported income during good years. However, they also have unusual discretion to delay recognition of economic losses, and thus to increase reported income in bad years" (p.47).

Peek et al. (2010) compared asymmetric timeliness in public firms to that in private ones across 13 western European countries from 1993 to 2000. They made a distinction between creditors and shareholders concluding that the demand for conservatism in public firms was greater by creditors than by shareholders. The latter, however, demanded higher conservatism than their counterparts in private firms did.

Using data from 38 countries over the period 1992–2001, Bushman and Piotroski (2006) explored whether institutional factors shape the properties of accounting amounts. They found higher conservatism in countries with higher quality of judicial systems, strong investor protection, and stronger enforcement of securities laws[38].

Francis and Wang (2008) examined the joint effect of investor protection and Big4 audits on earnings quality across 42 countries over the period 1994–2004. They concluded that timely loss recognition was higher in common law countries for firms having Big4 auditors.

As some firms around the world began to use IAS/IFRS voluntarily and then mandatorily in their financial reporting, there has been a growing body of literature investigating the effect of IAS/IFRS adoption on earnings quality metrics including conservatism.

To best of my knowledge, the work by Barth et al. (2008), which investigated the effect of voluntary IAS adoption on accounting quality across 21 countries, was the first to explore the effect of IAS adoption on conservatism across countries.[39]The results showed that timely loss recognition was higher after voluntary IAS adoption.

Chen et al. (2010) compared accounting quality across 15 European countries between the pre IFRS adoption period (2000-2004) and the post IFRS adoption period (2005-2007). Of the

[38] Our study differs from theirs in that ours focuses on countries enforcing IFRS, which makes the effect of standards constant, and using different institutions with different measurement. In addition, we investigate value relevance to provide a better picture of earnings quality.
[39] They examined earnings management and value relevance as well.

metrics they employed, timely loss recognition was found less timely in the post mandatory IFRS periods.

Ahmed et al. (2013) provided evidence on the introductory effects of compulsory IFRS adoption on accounting quality across 20 countries that adopted IFRS mandatorily in 2005 compared with a benchmark group of companies from 15 countries that did not apply IFRS. They used data from 2002 to 2004 for pre IFRS adoption and data from 2006 to 2007 for post IFRS adoption and dropped 2005. They found a significant decline in the timely loss recognition relative to gain recognition for companies adopting IFRS compared with benchmark companies. They suggested that earnings quality did not improve after the mandatory IFRS adoption even with the presence of strong enforcement.

Using data from 16 European countries over the period from 2000 to 2010, André et al. (2015) found similar results to those reported by Chen et al. (2010) and Ahmad et al. (2013). They documented a decrease in conditional conservatism in the post IFRS period in Europe. However, the decrease was lower in countries with strong auditing and strong enforcement of accounting standards[40].

Given the above, there is no recent study exploring the effect of country-specific factors on conservatism under IFRS. The second empirical chapter of this thesis partially adds to the literature by investigating the effect of country-specific factors on conservatism under IFRS.

4.6. Value relevance

In general, the value relevance literature refers to studies that examine the relationship between an accounting amount and equity market price. Accounting earnings are relevant and reliable

[40] They used the Brown et al. 2014 audit and enforcement index.

when their relationship with equity market value is significant. The higher accounting values reflected in the equity market price, the higher value relevance is.

In September 2010, the joint Conceptual Framework of the FASB and IASB identified relevance as one of the primary qualitative characteristics of useful financial reporting. Accoutring earnings are relevant if they are capable of making a difference when making economic decisions. Relevant accounting earnings information has either a predictive value or a confirmatory value, or both (IASB, 2010). Reliability has been considered as a fundamental characteristic of financial reporting for a long time but now replaced by faithful representation in the last draft of the IASB's Conceptual Framework. In the past, the IASB used to classify faithful representation as a secondary characteristic enhancing reliability. The FASB's Conceptual Framework identifies relevance and reliability as fundamental features of financial reporting. Hence, several studies linked value relevance to decision usefulness (e.g. Francis and Schipper 1999; Lev and Zarowin, 1999).

Exploring the relationship between accounting amounts and market values is not a recent trend; it goes back to 1960s with the first work by Miller and Modigliani (1966), as Barth et al. (2001) argue. Barth et al. (2001) claim that the first explicit use of the term 'value relevance' was by Amir et al. (1993).

An early stream of value relevance studies look at the relevance and reliability of fair value estimates used for different items in the financial reporting. Various items have been used in the literature, including pensions and other postretirement benefits obligations (e.g. Barth, 1991; Choi et al., 1997), debt and equity securities in banks and other property liability issuers (e.g. Barth, 1994; Barth and Clinch, 1998; Carroll et al., 2003). In addition, derivatives (e.g. Venkatachalam, 1996; Wong, 2000) bank loans (Nelson, 1996; Barth et al., 1996) non-financial intangible assets (Barth and Clinch 1998; Aboody et al. 1999), have been used. The

aforementioned studies tried to address whether fair value estimates for some items were relevant and reliable by examining its relationship with market value.

Another set of value relevance studies were across different countries (e.g. Alford et al., 1993; Harris et al., 1994; Joos and Lang, 1994; King and Langli, 1998; Graham and King, 2000; Fan and Wong, 2002). In general, these studies examined how value relevance differed across the countries where there were differences in corporate governance, accounting standards, and capital markets.

Starting from 2000, a new set of value relevance studies emerged, testing the value relevance of accounting amounts in the financial reporting prepared using IAS and then IFRS. This set of studies inquired into whether financial reporting under IAS/IFRS was of higher value relevance than that under local accounting standards.

Since our study explores the effect of institutional factors on value relevance across countries mandating IFRS, two main streams of literature are relevant to it. The first is the specific country studies on value relevance after IFRS adoption, and the second is the studies on value relevance across countries.

4.6.1. Single country studies

Most single-country studies on IFRS adoption and value relevance were conducted in Germany. The underlying cause can be the permission of dual financial reporting in Germany from early 1990s, one complying with either US GAAP or IFRS and another complying with HGB (Christensen et al., 2015). Hence, the availability of data allows researchers to conduct studies comparing accounting quality under different standards for the same firms.

Niskanen et al. (2000) examined the effect of IAS adoption on earnings quality by comparing value relevance of earnings under domestic accounting standards with the same earnings

reconciled to IFRS in Finnish firms. The results provided no evidence of value relevance for reconciliation of Finnish Accounting Standards to IAS at an aggregate level. It was also reported that there was significant value relevance for reconciling adjustments of untaxed reserves and consolidation differences.

Elsewhere, Babalyan (2001) compared earnings quality reported by Swiss firms under US GAAP and earnings reported under Swiss GAAP as well as earnings reported under IAS, using a sample of Swiss companies from 1997 to 1999. He documented that U.S. GAAP was more value relevant than Swiss GAAP and IAS. Audit quality and firm size were proved to be significantly influential factors for earnings quality under IAS compared to Swiss GAAP.

In Germany, Hung and Subramanyam (2007) examined the effects of IFRS adoption on value relevance of equity and net income from 1998 to 2002[41]. They did not find evidence to suggest that IAS improved the value relevance of book value and net income. The variability of book value and income, book value of equity and total assets was significantly higher under international standards than under German GAAP (HGB).

In another study, Gassen and Sellhorn (2006) studied the determinants of voluntary adoption of IFRS from 1998 to 2004, and earnings quality in HGB firms and IFRS firms. Of earnings quality metrics, they found value relevance in IFRS firms higher than in HGB firms but the differences were insignificant[42].

Jermakowicz et al. (2007) evaluated the effect of cross listing on the NYSE, adopting IFRS, or applying US GAAP on the value relevance of earnings to market value of German DAX-30 companies from 1995 to 2004. The statistical analysis indicated a significant relationship

[41] They also examined the timeliness and asymmetric timeliness. The evidence that income under international standards exhibits greater conditional conservatism and timeliness than income under HGB was weak.
[42] IFRS firms were found to have more persistent, less predictable and more conservative earnings than HGB firms did.

between the book values of earnings and stock prices. The findings confirmed that cross-listing on the NYSE, adopting US GAAP or IFRS, significantly improved the value relevance of earnings to market value of equity.

Van der Meulen et al. (2007) tested the differences in earnings quality of two groups of German New Market firms from 2000 to 2002; the first applied IFRS, the second adopted US GAAP. Four metrics were investigated: two accounting-based earnings attributes, accrual quality and predictability; and two market-based earnings attributes, timeliness and value relevance. Accrual quality, timelines, and value relevance were found similar under IFRS and US GAAP whereas earnings under US GAAP revealed better predictability.

4.6.2. Multi country studies

The first stream of multi country studies on value relevance focused on exploring the differences in value relevance of earnings and book values due to the differences in the accounting standards (e.g. Alford et al., 1993; Harris et al., 1994; Joos and Lang, 1994; King and Langli, 1998). Another set of multi country literature investigated the effect of macro factors such as financing system, accounting regulator, tax, accounting cluster[43] and spending on auditing services (Ali and Hwang, 2000). Other studies investigated investor protection (Hung, 2001; Cahan et al., 2009), ownership concentration (Fan and Wong, 2002) governance mechanisms[44] (Davis-Friday et al, 2006), legal system origin, disclosures requirements and the accounting regulator (Anandarajan and Hasan, 2010). Anandarajan et al. (2011) examined the influence of transparency, corporate, economic, and financing environments, and legal environment on value relevance in banking institutions.

[43] British-American, Continental, South American and Mixed Economy.
[44] They operationalized corporate governance metric as composite score of shareholder rights, creditor rights, rule of law, and ownership concentration from La Porta e al., (1998), and audit quality from Saudagaran and Diga, (1997b).

A recent set of multi country studies has examined the effect of IAS/IFRS adoption on value relevance of earnings and book values across countries (Barth et al., 2008; Devalle et al., 2010; Agostino et al., 2011; Liao, et al., 2012). Regarding the effect of institutions, Clarkson et al. (2011) investigated the effect of legal system on value relevance. The only recent study exploring the effect of institutional factors on value relevance of accounting information was by Isidro and Raonic (2012).

An early work by Alford et al. (1993) examined the value relevance of accounting information across 17 countries where US firms were used as a benchmark. They found that the value relevance of accounting earnings reported under local accounting standards in Australia, France, the Netherlands, and the UK was greater than that of earnings prepared in accordance with US GAAP. On the other hand, earnings under US GAAP were of more value relevance than those under local GAAP in Denmark, Germany, Italy, Singapore, and Sweden. The results of the other countries were not conclusive.

Harris et al. (1994) compared the value relevance of book value and earnings of German companies with those of US companies matched in terms of size and industry. The motive behind their study was the controversy on the SEC's requirements to reconcile financial reporting of foreign firms seeking listing on a US stock market from local GAAP to US GAAP[45]. The disclosure to investors under German GAAP was deficient according to many observers. Interestingly, they provided evidence that the value relevance of earnings under German GAAP and under US GAAP were not significantly different. However, the value relevance of shareholders' equity in German firms was lower than in US firms.

In a similar study on Germany, France and the UK, Joos and Lang (1994) concluded that there was no difference in the association between stock price and accounting amounts between the

[45] The controversy was between the SEC and the New York Stock Exchange (NYSE).

UK firms and German firms whose measurement practices tended to be more conservative than the UK firms'. They also found that the implementation EU directives, in an attempt to harmonise accounting practices in the EU, did not decrease the country specific measurement practices across Germany, France, and the UK.

King and Langli (1998) examined the value relevance of book value and earnings per share across Norway, the UK, and Germany. Despite the fact that the accounting rules across the three countries were different in terms of conservatism and the adherence to clean surplus accounting, they found a significant association between stock prices and both earnings per share and book value across all three countries.

Graham and King (2000) relate equity market value to book values and earnings in six Asian countries, namely Indonesia, South Korea, Malaysia, the Philippines, Taiwan, and Thailand. In all six countries, the book value and the residual earnings were positively related to the stock prices. On the other hand, the explanatory power for South Korea and Philippines was relatively high whereas it was relatively low for Malaysia and Taiwan. They attributed these differences to the differences in accounting practices even though the result of Korea was unexpected, where the accounting practices were influenced by the tax law.

Ali and Hwang (2000) explored the effect of country specific factors on value relevance of accounting information across 16 non-US countries and using US firms as a control. They found that value relevance was higher in countries where the financing system was market oriented; i.e. where private sector bodies had a key role in setting the accounting standards, accounting systems fell into the British American type and the spending on auditing services was high.

Hung (2001) investigated the effect of using accrual accounting versus cash accounting on value relevance of accounting performance measures (earnings and REO) across 21 countries.

The findings suggested that using accrual accounting had a negative effect on value relevance only in countries with weak investor protection. Strong shareholders' protection reduced the negative effect of accrual accounting on value relevance of accounting performance measures, and even increased the value relevance.

Fan and Wong (2002) tested the relations between value relevance and ownership concentration in seven East Asian economies excluding Japan. They documented that ownership structure affected the informativeness of accounting earnings. Specifically, firms with concentrated ownership had lower earnings informativeness than those with dispersed ownership structure. They attributed this conclusion to the fact that under concentrated ownership, accounting information reflects the controlling owners' intentions rather than the firm's economic reality.

Davis-Friday et al. (2006) investigated the value relevance of book value and earnings in four Asian countries, Indonesia, South Korea, Malaysia, and Thailand during the period of the Asian crisis. They found that the value relevance of book value increased in Indonesia and Thailand during the crisis in contrast to value relevance of earnings, which significantly decreased. While the crisis had no significant impact on the value relevance of earnings or book value in South Korea, the value relevance of both book value and earnings declined during the crisis in Malaysia. They also found that the value relevance of book value decreased with weak corporate governance mechanisms, which had no effect on the value relevance of earnings. Finally, the accounting systems affected the value relevance of book value during the crisis.

Cahan et al. (2009) investigated the effect of earnings quality[46], investor protection and information environment on value relevance across 13 countries over the period from 1993 to 2003. They found that the association between return earnings and earnings quality was higher

[46] earnings persistence and the earnings-future cash flows

in countries with strong investor protection and low information opaqueness. It is worth mentioning that they measured investor protection by anti-director rights and legal enforcement.

Anandarajan and Hasan (2010) inquired into the value relevance of earnings and its components across seven countries in Asia and Africa, namely Egypt, Israel, Jordan, Lebanon, Morocco, Tunisia, and Turkey. The value relevance was greater in the financial reporting prepared under accounting standards issued by private bodies rather than governmental organisations. In addition, the value relevance of reported earnings was higher in the presence of more foreign shareholders. Legal system origin, civil or common, had an effect on the association between stock prices and book values and earnings in that greater value relevance was in common law countries.

In banking institutions, Anandarajan et al. (2011) examined the value relevance across 38 countries using data from 1993-2004. More specifically, they investigated the effect of some macro level factors, such as transparency, corporate, economic and financing environments and legal environment, and micro level factors, such as size, risk, and organization form. They found higher value relevance in countries with greater disclosure requirements and more focus on the private sector. Value relevance of earnings and book values were greater in common law countries than in code law countries.

In an emerging market and using a monthly data from 2000 to 2006, Alali and Foote (2012) investigated the value relevance of IFRS in financial reporting of firms listed on in the Abu Dhabi Stock Exchange. They found that earnings and book values were relevant in terms of their association with stock prices. However, in bearish trends the accounting information under IFRS may not be value relevant. They also noted a change in the value relevance of accounting information across the time since the market was established in 2000.

Since some firms began to use the international accounting standards IAS voluntarily in their financial reporting and then IFRS mandatorily, several studies tested the effect of this adoption on value relevance across countries.

In an international context, Barth et al. (2008) provide evidence that firms that use IFRS voluntarily reveal more value relevance of accounting amounts than do matched sample firms adopting non-U.S. domestic accounting standards across 21 countries.

Devalle et al. (2010) used a sample of 3.721 firms listed on five EU stock exchanges, Madrid, Paris, Frankfurt, Milan, and London to test whether value relevance increased after the introduction of IFRS in Europe in 2005. They observed mixed findings on the improvement in value relevance of earnings and book value of equity to share prices. However, the association between earnings and stock price increased after IFRS adoption in France, Germany, and the United Kingdom whereas the association between book values and stock prices decreased following the introduction of IFRS except for the UK.

Clarkson et al. (2011) used a sample of 3,488 firms to examine the effect of IFRS adoption on earnings and book value relevance to share prices of firms from EU countries and Australia that adopted IFRS mandatorily in 2005. They documented differential valuation effects for code law and common law countries. While the value relevance of IFRS earnings and book value equity for code law countries changed marginally, it declined for common law countries. Such expositions are unsatisfactory because they covered only one year after mandatory IFRS application.

Covering a year before the adoption and the year of mandatory IFRS adoption in the EU, Aharony et al. (2010) compared the value relevance of goodwill, research and development expenses, and the asset revaluation across 14 EU countries. The results showed an increase in

the value relevance of goodwill, research and development expenses, and asset revaluation increased after mandatory IFRS adoption across 14 EU countries.

In the bank sector, Agostino et al. (2011) showed, as expected, that the value relevance of earnings increased in the post IFRS adoption period for the entire sample. The greatest incremental effect was in Italy and Germany, the smallest in the UK. This result was consistent with the view that IFRS are of better quality than domestic EU accounting standards. It also coincided with the view that the quality of UK GAAP was already as high as IFRS. On the other hand, the findings on equity book value were less clear-cut. That is, less transparent banks did not experience significant improvement in value relevance of book value after mandatory IFRS adoption.

Liao et al. (2012) explored the comparability of book value and earnings between French and German firms after mandatory IFRS adoption. Their results suggest that book value and earnings under IFRS are comparable between France and Germany in the first years of IFRS adoption with a decrease in comparability thereafter.

Isidro and Raonic (2012) investigated earnings quality, earnings manipulation and the value relevance of accounting information across 26 countries that mandated IFRS, in two years of the adoption, 2006 and 2007. They found that strong monitoring mechanisms, more globalized markets, greater business sophistication, and higher level of economic development influence accounting quality positively.

4.6.3. Discussion

The findings of the effect of IFRS adoption on value relevance in a given country are mixed. While Niskanen et al. (2000) show no evidence of value relevance for reconciliation of Finnish

Accounting Standards to IAS at an aggregate level, Babalyan (2001) documented that U.S. GAAP were more value relevant than Swiss GAAP and IAS.

Gassen and Sellhorn (2006) and Hung and Subramanyam (2007) found no significant differences in value relevance between IAS adopters and their HGB counterparts. Similarly, Van der Meulen et al. (2007) found similar value relevance extent between two groups of German firms: the first applied IFRS, the second adopted US GAAP. In an international study, Barth et al. (2008) provided evidence that firms using IFRS voluntarily revealed more value relevance of accounting amounts than did matched sample firms adopting non-U.S. domestic accounting standards across 21 countries.

On mandatory adoption, Devalle et al. (2010) concluded mixed results on the effect of IFRS introduction in 2005 in the EU. The association between earnings and stock price increased after IFRS adoption in France, Germany, and the United Kingdom whereas the association between equity book value and stock price decreased following the introduction of IFRS except for the UK. In a more comprehensive study across the EU and Australia, Clarkson et al. (2011) noted that the value relevance of earnings and book values for code law countries changed marginally; it declined for common law countries in the year of IFRS introduction in 2005. In the bank sector, Agostino et al. (2011) showed, as expected, that the value relevance of earnings increased in the post IFRS adoption period for the entire sample.

Another work by Liao et al. (2012) suggested that book value and earnings under IFRS were comparable between France and Germany in the first years of IFRS adoption with a decrease in comparability thereafter. Aharony et al. (2010) explored the value relevance of goodwill, research and development expenses, and asset revaluation after mandatory IFRS adoption across 14 EU countries, concluding that there was an increase in the value relevance of those items.

Studies on the effect of country-specific factors on value relevance are rare covering the period before the adoption of IFRS or in banking institutions.

Ali and Hwang (2000) found that value relevance was higher in countries where the financing system was market oriented, where private sector bodies had a key role in setting the accounting standards, accounting systems fell into the British American type and the spending on auditing services was high. Hung (2001) noted that strong investor protection reduced the negative effect of accrual accounting on value relevance of accounting performance measures, and even increased the value relevance. Fan and Wong (2002) related higher value relevance to less ownership concentration. During the financial crisis, corporate governance mechanisms had no effect on the value relevance of earnings whereas weak governance decreased the value relevance of book value as found by Davis-Friday et al. (2006).

Cahan et al. (2009) found a higher association between return earnings and earnings quality in countries with strong investor protection and low information opaqueness. Anandarajan and Hasan (2010) found that value relevance was greater in common law countries than in code law countries. Value relevance was also higher when there were more foreign shareholders, and the private bodies took part in setting the accounting standards. In banking institutions, Anandarajan et al. (2011) found that value relevance of earnings and book values were higher in common law countries.

To best of my knowledge, the work by Isidro and Raonic (2012) was the first that discussed the effect of country-specific factors on value relevance of accounting information across 26 countries that mandated IFRS adoption. However, their study covered only two years, 2006 and 2007[47]. Further, they did not differentiate between earnings and book values; rather, they look

[47] We explained in previous sections the limitations of studying the early years of IFRS adoption. See the discussion above in this chapter regarding the shortcomings of studying the first years of mandatory IFRS adoption.

at the accounting information in general using the residuals from the regression of return on earnings and the change in earnings.

The current study adds to the extant literature by exploring the effect of investor protection, enforcement of accounting standards and the strength of capital market on value relevance of book values and earnings over the period from 2007 to 2010, the financial crisis period, across 23 countries mandating IFRS. If the country specific factors still influence the value relevance after IFRS mandatory adoption, this raises a question about whether the notion that mandatory IFRS adoption alone improves the quality and comparability of financial reporting across countries.

In a comparative study examining the effect of country-specific factors on value relevance of earnings, it would be misleading to draw conclusions on the effect of local environments on value relevance without looking at the presence of conservative accounting. As such, it is useful to examine both attributes of earnings quality, conservatism and value relevance of earnings. This is another contribution we add in the second empirical chapter.

4.7. Investor protection, enforcement and strength of capital markets: definitions

La Porta et al. (2000, p.4) defines investor protection as "the protection of shareholders and creditors by the legal system". Investor protection is multidimensional and can be captured by several factors; in other words, several mechanisms can contribute to the strength of investor protection. Judicial independence, board independence, protection of minority shareholder rights, enforcement of accounting and auditing standards, enforcement of securities laws, and the importance of capital market are all mechanisms of investor protection as discussed later in this section[48].

Judicial independence

[48] See Table 5-3 which describes the measures used to obtain investor protection variable.

Judicial independence measures the "efficiency and integrity of the legal environment as it affects business" (La Porta et al., 1998, p.1124). The history and theory suggest an association between judicial independence and common law system, both of them predicting the same economic freedoms. When the government becomes a litigant, for instance when the state takes property, judicial independence is of apparent importance to secure the property rights (La Porta et al., 2004). Thus, we posit that efficient judicial independence enhances the protection of investors.

Board independence

Fama (1980) and Fama and Jensen (1983) argue that outside directors, who do not have interests ties to the company, contribute positively to monitoring top management by ensuring that it acts in favour of shareholders. Independent directors are concerned with protecting the value of their professional reputation whereas managers could act to maximize their interests at the expense of shareholders'. Prior research suggests that earnings management is lower in the companies with a high number of independent directors on the board (Dechow et al., 1996; Klein, 2002; Peasnell et al., 2005; Ebrahim, 2007).

Protection of minority shareholder rights

Prior research supports the hypothesis that managers in countries providing weak protection of minority shareholder rights have greater incentives to engage in accounting practices to manipulate earnings (e.g. Ball et al., 2000; Leuz et al. 2003; Daske et al., 2008; La Porta et al., 2006; Francis and Wang, 2008).

Enforcement of accounting and auditing standards

Enforcement of laws plays a crucial role in protecting the interests of investors by ensuring that the companies comply with these laws. What is the benefit of any law if the law enforcement

mechanisms are weak? With respect to IFRS, the enforcement of accounting standards is an essential factor to secure consistent accounting practices across the companies since the IASB has no power to enforce companies to comply with IFRS. In spite of the fact that countries across the world adopt IFRS, the enforcement of IFRS compliance remains a national matter. The FEE (2002, p.5) defines enforcement as the

> system to whenever possible protect, and thereafter identify and correct, material errors or omissions in the application of IFRS in financial information and other regulatory statements issued to the public.

The enforcement of IFRS contributes to the transparency of financial statements, thereby protecting investors and promoting market confidence CESR (2003). Many code law countries applying Anglo American accounting standards are without the litigation enforcement of common law countries (Ball et al., 2000), which, in turn, affects the quality disclosure in code law countries. They suggest that common-code law dichotomy and the strength of enforcement are associated. Gassen et al. (2006) provide evidence that managers are less likely to engage in income smoothing in common law countries compared with those in code law countries. Investigating the European stock exchanges reactions to IFRS adoption, Armstrong et al. (2010) report a negative reaction to IFRS adoption in jurisdictions with weak enforcement of accounting standards. Byard et al. (2011) conclude that mandatory IFRS application enhances analysts' forecast accuracy for firms domiciled in countries with strong accounting standards enforcement.

Enforcement of securities laws

Park and Park (2004) provide evidence that managers who trade in firm's shares are more likely to adjust the accruals to inflate current earnings when they have the intention to sell their shares in the subsequent period. Consistent with this conclusion, McVay et al. (2006) report an

association between the tendency of managers to engage in earnings management to meet the analysts' forecasts and the sale of their own shares in the subsequent quarters. When there is a lack of stringently enforced securities laws, managers' incentives are to trade on information and thereby incorporate it into prices (Ball et al., 2000). As managers may trade in firm's stocks, the enforcement of securities laws may discourage the managers from manipulating earnings to make profits (Hope, 2003).

The importance of capital markets

How companies are financed is one of the crucial factors that influenced accounting practices worldwide before IFRS adoption. Prior research suggests a link between the strength of equity market and the type of legal systems. Roman law countries have been characterized by the presence of insider systems of finance while common law countries have been dominated by outsiders financing systems with stronger investor protection in such countries (La Porta et al., 1997; 1998). In the insiders systems, families, banks and governments have privileged access to accounting information while in the outsiders, shareholders, who are the source of finance, lack such access. For this reason, financial accounting in outsiders systems has developed to fulfil the needs of shareholders whereas with the insiders systems there is no apparent need for financial reporting to provide information as required under outsiders systems. However, the minority shareholders in insiders systems may not be fully aware of the economic reality of the business as their counterparts are in outsiders systems. Therefore, we suggest that strong capital market complements investor protection; this is consistent with previous studies (e.g. Leuz et al., 2003).

4.8. Hypotheses

In chapter 3, three factors were identified as factors shaping accounting practices after IFRS adoption, namely investor protection, enforcement of accounting standards and the strength of

capital market. The current chapter has discussed earnings quality measures used in the thesis in addition to prior studies. Given the discussion in chapter 3 and chapter 4, eight hypotheses are formulated.

Strong investor protection and strong enforcement curtail the ability of managers to manage earnings upwards via accruals. Similarly, in strong capital market, associated with higher shareholders litigation[49], managers are less likely to manage earnings upwards via accruals. On the other hand, in such countries having strong institutions, managing earnings by taking real actions is greater than in countries with weak institutions. Real actions are in line with regulations and are difficult to detect; therefore, they are more popular when the litigation is higher. A CFO interviewed by Graham et al. (2005) mentioned the difficulty the auditors face in challenging the real economic actions, taken in the normal course of operations, to hit the target while they can easily criticize the accounting policies. Schipper (2003) points out that companies tend to take real economic actions with tighter standards; hence, strong institutions may have the same effect. Taken together, with strong investor protection and strong enforcement, mangers try to avoid managing earnings via accounting practices whereas they are more likely to take real actions to beat the target as it is difficult for regulators to second-guess them.

Two hypotheses are derived to be tested in Chapter 6:

Hypothesis1: accruals earnings management is less in countries with strict investor protection, strong enforcement of accounting standards and strong stock markets.

[49] Shareholder litigation is an important mechanism that limits managers' opportunistic disclosure. Investors can take legal actions against the firm and its managers because of misleading information (Rogers et al., 2011).

Hypothesis2: real earnings management is greater in countries with strong investor protection, stringent enforcement of auditing and accounting standards and large capital markets.

Managers become more conservative with higher litigation; therefore, strong investor protection and strong enforcement increase the conditional conservatism. Strong investor protection and strong enforcement, which we expect to increase conservatism, do not increase the value relevance of earnings whereas they increase the vale relevance of book values. The last prediction is based on the literature showing that conservatism influences the value relevance of earnings (see section 4.4). Further, Davis-Friday et al. (2006) reported that strong corporate governance mechanisms[50] increased the value relevance of book values during the crisis and had no effect on value relevance of book values. As we cover the period of financial crisis from 2007 to 2010, we expect that strong investor protection and strong enforcement to increase value relevance of book values and that those factors do not influence the value relevance of earnings.

The demand for conservatism may be present in both types of capital markets, weak and strong. Nobes (1998) suggest that earnings in insider capital market are more conservative than in outsider equity market. However, Ball et al. (2000) suggest that conservatism is a feature of corporate governance in common law countries characterized by shareholders' corporate governance model. For this reason, we expect no effect of the strength of capital market on conservatism. On the other hand, strong capital market increases the value relevance of earnings as in market oriented countries financial reporting is the main source of information for shareholders but in weak capital market banks and families have their own access to information. The following are the hypotheses to be tested in Chapter 7:

[50] They operationalized corporate governance metric as a composite score of shareholder rights, creditor rights, rule of law, and ownership concentration from La Porta e al. (1998), and audit quality from Saudagaran and Diga (1997b).

Hypothesis3: strong investor protection increases conservatism in financial statements.

Hypothesis4: there is a greater degree of conservatism in countries with more efficient enforcement of accounting standards.

Hypothesis5: strength of capital market has no effect on the extent of conservatism across countries.

Hypothesis6: strong investor protection has no effect on value relevance of earnings; instead, it increases the value relevance of book value of equity.

Hypothesis7: strong enforcement of accounting standards increases the value relevance of book value and has no effect on value relevance of earnings.

Hypothesis8: value relevance of earnings is greater in countries having strong capital market.

4.9. Conclusion

This chapter presented the literature review of earnings quality under IFRS. More specifically, it illustrated definitions and motives of earnings management, definitions of country-specific factors and the difference between the contracting perspective and the equity valuation perspective of accounting information. It also presented prior studies on earnings management, conservatism and value relevance to show the gap in the literature. Eight hypotheses were formulated to be tested in Chapters 6-7.

Chapter 5 Research Methodology

5.1. Introduction

This chapter describes and discusses the methodology and methods used in this investigation. It is composed of seven themed sections, including the introduction. The second section presents the research paradigm and philosophy. Section 3 describes sample selection. Section 4 moves on to describe earnings management divided into four subsections dealing with accruals earnings management model, real earnings management models, measurement of investor protection, and second stage models. Section 5 is devoted to models of conservatism and value relevance. Section 6 presents methodological issues. Section 7 concludes the chapter.

5.2. Research paradigm and philosophy

Kuhn (1996, p.109) stated that "[p]aradigms provide scientists not only with a map but also with some of the directions essential for map making. In learning a paradigm the scientist acquires theory, methods, and standards together, usually in an inextricable mixture". Therefore, paradigms are considered as guidance on how to conduct the research. They also include philosophical assumptions about how one examines the world (Saunders et al., 2007).

The positivist paradigm was used to achieve the aim of this study, which is exploring the effect of country-specific factors on accounting quality under IFRS employing a contingency approach on macro level to determine factors shaping accounting practices under IFRS, and agency theory to explain the effect of these factors on accounting quality.

Under the positivist paradigm, studying social reality is the same as in the natural sciences in terms of methods applied in the study (Bryman and Bell, 2003). The underlying reason for this similarity is that the human and natural sciences deal with facts instead of values (Gray, 2009).

Moreover, the positivist paradigm states that what can be touched, seen and smelt formulates the reality, therefore the inquiry should be empirical or scientifically observed (Gray, 2009). These objective methods, scientific observation or empirical inquiry, rather than a subjective sensation, are used to measure the properties of the social world since it exists externally (Easterby-Smith et al., 2004). The aim of the positivist paradigm is to explain and predict phenomena, in addition to anticipating their occurrences depending on theories (Collis and Hussey, 2009). In other words, the aim is to test theories or theoretical predictions by collecting data (Hallebone and Priest, 2009).

There are four philosophical assumptions underpinning a research paradigm, namely, ontology, epistemology, axiology and methodology (Creswell, 1994; Burrell and Morgan, 1979).

The ontological assumption of the positivist paradigm states that reality is objective, singular and separate from the researcher (Creswell, 1994). In other words, the ontological assumption of the positive paradigm is realist (Blaikie, 2007). The epistemological assumption of the positivist paradigm presents the researcher as independent of that being researched (Creswell, 1994). The axiological assumption of the positivist paradigm indicates that the researcher is unbiased and value free. The methodological assumption of the positivist paradigm states that the research is deductive (Creswell, 1994). Additionally, a quantitative method of analysis is used in the positivist paradigm to measure social phenomena (Collis and Hussey, 2009).

In this study reality is viewed as external, objective and independent of social actors and is therefore consistent with using the positivist paradigm. A further assumption of the positivist paradigm is that the researcher is an impartial observer, is not biased and therefore is reflecting reality as it is. The researcher empirically investigated the data to determine if the results obtained were consistent with and supported the hypotheses that were being tested. More specifically statistical analysis was used to determine the relationship between an independent

variable (accounting quality) and a dependent variable (the country-specific factor). In carrying out these statistical tests, consistent with using a positivist approach it is assumed that the data is value free and unbiased and has been accurately measured.

5.3. Sample selection

The sample consisted of 16328 observations from 23 countries, and excluded financial institutions and utilities since they were subject to other regulations in the preparation of financial statements. The sample period was from 2007 to 2010, as shown in Table 5-1.

Table 5-1 Sample

The overall observation from 2007 to 2010	40724
Less: Financials and utilities	-8584
Less : Observations in industries lower than six firms	-348
Less: Observations with missing variables for dependent variable and independent variables	-15464
Number of observations used in the test	**16328**

We dropped observations in industries with fewer than six firms, as the estimations of earnings management could not be run, and excluded observations with missing variables for dependent and independent variables. We obtained the data for dependent and independent variables from WorldScope. All statistical analyses, in this study, were performed using Stata 12.1.

The 23 countries are Australia, Austria, Belgium, Bulgaria, Denmark, Finland, France, Germany, Greece, Hong Kong, Italy, Jordan, Netherlands, Norway, Oman, Philippines, Poland, Portugal, Singapore, South Africa, Spain, Sweden, and the UK[51]. These countries enforced IFRS adoption in 2005 or earlier[52], and are different in geographical location, legal system, the extent of wealth, and culture. Such mixture of countries might illuminate the effect of country-specific factors on earnings quality under IFRS.

[51] See Table 2-1 for more information of the data of IFRS adoption and the version used.
[52] See chapter 2 for detailed information on IFRS adoption across countries including: the adoption process, year of adoption, and which firms should use IFRS.

In fact, the number of countries that switched to IFRS is greater than the 23 we included in our sample; however, we limited our sample to 23 countries that adopted IFRS in 2005 or before as we excluded the early years of IFRS adoption, 2005 and 2006 in this study[53]. Some other countries adopted IFRS in 2005, but were not included in our study because they did not have a sufficient number of listed companies to run the regression for the earnings management test. We also chose to cover the period from 2007 to 2010, the crisis period, when the economic circumstances were similar across this period[54]. By doing so, we isolated the possible effect of the economic circumstances change on earnings quality.

WorldScope database provides a variable called "WS.AcctgStandardsFollowed" which shows which accounting standards a company uses in its financial statements.

If the output is 23, it means that the company applies IFRS. For Australia, EU countries, Jordan, Oman and South Africa, companies were considered as IFRS adopters if "WS.AcctgStandardsFollowed" was 23. If the output of "WS.AcctgStandardsFollowed" was 01, the company applied local standards.

In the case of Hong Kong, Philippines and Singapore, the local standards were equivalent to IFRS (see Table 2-1); therefore, companies with 01 and 23 were considered to be applying IFRS for the purpose of this study. By doing so, we minimized the error associated with coding companies as IFRS adopters, the thing that was not dealt with properly in prior studies. In section 5.6, we discuss the limitations of prior studies in terms of specifying companies that use IFRS.

[53] As mentioned in the previous chapter, exploring the early years of IFRS adoption is of limitation due to accounting practices associated with first-time IFRS adoption and the possible continuation of traditional practices in the first years of adoption.

[54] The change of economic circumstances in the post IFRS adoption era compared with pre IFRS adoption period probably makes the comparison of earnings quality before and after the adoption difficult (Walker, 2013).

Table 5-2 Distribution of sample by industry and country

Country	Energy	Materials	Industrials	Cons.discre	Cons.staples	Health care	infor.tec	Infor.services	Total
Australia	100	172	344	276	88	140	152	36	1308
Austria	0	0	60	32	0	0	0	0	92
Belgium	0	36	36	32	36	40	68	0	248
Bulgaria	0	32	92	60	48	0	0	0	232
Denmark	0	24	128	68	0	52	36	0	308
Finland	0	36	136	64	28	0	72	0	336
France	32	132	336	412	136	116	416	0	1580
Germany	0	88	384	324	72	156	396	0	1420
Greece	0	136	192	192	104	28	56	0	708
Hong Kong	48	200	424	744	164	112	452	40	2184
Italy	28	52	160	236	44	36	88	0	644
Jordan	0	56	52	88	44	0	0	0	240
Netherlands	0	24	88	48	40	0	72	0	272
Norway	124	0	120	28	40	32	68	0	412
Oman	0	52	40	24	32	0	0	0	148
Philippines	28	24	48	68	56	0	0	24	248
Poland	0	64	148	144	64	0	64	0	484
Portugal	0	28	36	52	0	0	0	0	116
Singapore	56	128	452	208	132	36	252	0	1264
S.Africa	0	124	108	116	64	0	48	0	460
Spain	0	56	80	52	32	44	0	0	264
Sweden	0	52	236	120	40	100	216	0	764
Uk	148	204	772	628	156	180	472	36	2596
Total	564	1720	4472	4016	1420	1072	2928	136	16328
%	0.034	0.105	0.273	0.245	0.086	0.065	0.179	0.008	100

Notes to Table 5-2: the firms in the sample are classified by 2-digits GICS. Financials and Utilities are excluded; therefore, there are eight broad industry groups.

The firms were classified following the 2-digits Global Industry Classifications Standard (GICS) to include eight broad industries: Energy, Materials, Industrials, Consumer Discretionary, Consumer Staples, Health Care, Information Technology, and Information Services.

Table 5-2 shows the distribution of the sample by country and industry. The industrial firms represented the majority of firms, roughly 27.3% of the sample. Consumer Discretionary firms followed the industrials, with approximately 24.5% of the sample. Information technology firms were the third major firms in our sample, representing 17.9%, followed by Materials, which represented 10.5%. The other firms altogether represented 20% of the sample.

The highest number of observations was from the UK, (2596) observations for (649) firms, followed by Hong Kong, (2184) observations for (546) firms, France (1580) observations for (395) firms, Germany (1420) observations for (355) firms, and Australia (1308) for (327) firms.

On the other hand, the lowest number of observations was from Austria, (92) observations for (23) firms, followed by Oman, (148) observations for (37) firms, Bulgaria (232) observations for (58) firms, Jordan (240) observations for (60) firms, and Belgium (248) observations for (62) firms.

In the sections that follow, the estimations of the effect of country-specific factors on earnings management, conservatism, and value relevance are discussed.

5.4. Earnings management

In Chapter 6, we examined not only accruals earnings management, which is widely used in the literature, but also real earnings management driven by the argument that companies engage in both types of earnings management (Graham et al., 2005). This is the first study to

simultaneously look at accruals earnings management and real earnings management over 2007-2010 across 23 countries using IFRS.

To that end, we first estimated accruals earnings management and real earnings management and then we explored how they varied based on the country-specific factors. In the sections that proceed, we present the models employed to estimate both accruals and real earnings management.

5.4.1. Accruals based earnings management estimation

Accruals models are used in the literature to measure the extent to which companies manage earnings, which is one of the dimensions of earnings quality. A considerable number of previous studies separate accruals into non-discretionary accruals and discretionary accruals.

Non-discretionary accruals are mentioned as "normal accruals" while discretionary accruals are "abnormal accruals". Scholars have employed a wide variety of accruals based models in their studies. The most popular models are: Healy (1985), Jones (1991), Modified Jones, Dechow and Sloan (1991), and Dechow and Dichev (2002).

Healy (1985) equates discretionary accruals with total accruals without incorporating any determinants of non-discretionary accruals whereas Jones (1991) attributed non-discretionary accruals to the change in sales and the level of PPE. Accruals that are not associated with fundamental firm performance are considered as discretionary accruals that reduce earnings quality. However, the Jones (1991) model can be criticised in that it has a low explanatory power for the variation of accruals, explaining about 10% of it (Dechow et al., 2010). That is, fundamental firm attributes, such as sales growth and PPE, can be masked by managers who have considerable discretion over accruals.

Dechow and Sloan (1991) developed their industry model based on the assumption that all firms in the same industry experience the same variation and determinants of non-discretionary accruals which are constant over time. They equated non-discretionary accruals to the median total accruals of the firms in the same industry.

Dechow et al. (1995) suggested a modification to the Jones model, by deducting the change in receivables from the change in revenues to adjust credit sales, in an attempt to eliminate the assumed error in measuring discretionary accruals when managers use discretion over revenues.

However, firm performance attributes may cause the differences in estimated discretionary accruals rather than managing earnings by managers, as mentioned by McNichols (2000), who states:

> [R]esearchers comparing firms that differ in earnings performance or growth characteristics may well observe (or not observe) differences in estimated discretionary accruals that relate to the performance characteristics of these firms rather than their incentives to manage earnings. (p. 333)

To eliminate the effect of firm performance on estimated discretionary accruals, Holthausen et al. (1995) and Kothari et al. (2005) suggested the incorporation of return on assets (ROA) as a determinant of accruals in the modified Jones model.

Alternatively, Dechow and Dichev (2002) offer a different approach by regressing the change in short term working capital accrual (AWC) on past, current and future cash flows from operation (CFO). The logic behind this perspective is that accruals anticipate cash outflows or inflows and reverse when cash, which is recognized in accruals before, is paid or received. Francis et al. (2005) augmented the DD (Dechow and Dichev) model with the fundamental variables from the Jones model; change in sales revenues and PPE.

Following Francis et al. (2005), this study modifies the DD model by adding to it the fundamental variables from the modified Jones model, including deducting the change in receivables from the change in revenues[55].

We ran the following regression for each combination of 2-digits GICS and year in each country:

$$\boldsymbol{ACC_t = \beta_0 + \beta_1 CFO_{t-1} + \beta_2 CFO_t + \beta_3 CFO_{t+1} + \beta_4(\Delta REV_t - \Delta REC_t) + \beta_5 PPE_t + \varepsilon} \quad (1)^{56}$$

The metric of accruals earnings management are the residuals from the previous estimation. The residuals represent the accruals that do not result from cash flow, revenues and PPE. To put it differently, the residuals are the abnormal accruals. All variables are deflated by total assets at the beginning of the period, $\boldsymbol{A_{t-1}}$.

Where:

$\boldsymbol{ACC_t}$ = accruals in year t; the difference between earnings and operating cash flow in year t.
$\boldsymbol{CFO_{t-1}}$ = cash flow from operating in year t-1;
$\boldsymbol{CFO_t}$ = cash flow from operating in year t;
$\boldsymbol{CFO_{t+1}}$ = cash flow from operating in year t+1;
$\boldsymbol{\Delta REV_t}$ =change in sales in year t;
$\boldsymbol{\Delta REC_t}$ =change in receivables from clients in year t
$\boldsymbol{PPE_t}$ =Gross value of property, plant and equipment in year t.

In this study, accruals were measured following the cash flow approach since Hribar and Collins (2002) report empirical evidence that accruals are potentially mismeasured when using the balance sheet approach. Further, this study employed the signed abnormal accruals since it is more accurate than the absolute discretionary accruals. Hribar and Nichols (2007) argue that the use of these methods leads to different results as a consequence of the change in the probability distribution when using the absolute discretionary accruals.

[55] Francis et al. (2005) did not deduct the change of receivables from changes in sales; however, we deducted the change of receivables from the change of revenues based on the argument provided before to adjust credit sales.
[56] As a robustness test, we used the modified Jones model to measure accruals earnings management as in Dechow et al. (1995) (see section 6.5).

Prior comparative studies (e.g. Leuz et al., 2003) on earnings management and voluntary adoption of IFRS did not employ the residuals models because of the low number of companies in each industry, but they used the residuals as a metric when the number of observations was sufficient. The average number of observations used in the literature is 8 to 10 observations per industry in a year when running the regression. Subramanyam (1996) excluded the industries with a fewer than six observations in every calendar year. Since the number of observations was low in some countries, we followed the broad industry classification, 2 digits GICS, which allowed us to use this model.

In this study, the minimum number of firms in each industry was at least six; however, most of the industry groups had far more than six observations per calendar year as in Table 5.2. Fifty two firms would have been dropped if we had chosen to include only industries with 8 observations at least. As a robustness check, we excluded industries with fewer than 8 observations per year, and the results we obtained were the same as the ones we obtained in the initial model. Cohen and Zarowin (2010) included the industries with at least 8 observations per year.

5.4.2. Real earnings management estimation

Following Roychowdhury (2006) and Cohen and Zarowin (2010), this study employed three metrics to estimate the level of real actions to manage earnings, namely the abnormal levels of cash flow from operations (CFO), production costs and discretionary expenses; it concentrated on three ways that affect the abnormal level of the aforementioned variables.

Abnormal cash flow from operation (CFO)

The first method of real actions is manipulating sales by generating additional unsustainable sales revenue, or accelerating the timing of sales, via increased periodic price reductions or through more lenient credit terms. By doing so, the sales volume increases temporarily in the current year; however, such increased sales disappear once the managers revert to the old prices. However, greater credit sales and discounts will result in lower cash flow.

To measure the abnormal cash flow, we used the following estimation as in Roychowdhury, (2006), and Cohen and Zarowin (2010):

$$\frac{CFOt}{A_{t-1}} = \beta_0 + \frac{\beta_1}{A_{t-1}} + \beta 2\ \frac{\text{SALES t}}{\text{A}_{\text{t-1}}} + \beta 3\ \frac{\Delta\text{SALES t}}{\text{A}_{\text{t-1}}} + \varepsilon it \qquad (2)$$

A_{t-1}= lagged total assets in year t–1.

Abnormal *CFO* is actual *CFO* minus the normal level of *CFO* calculated using the estimated coefficients. In other words, the residuals from the regression (2) represent the abnormal CFO.

Abnormal production costs (PROD)

Another way of real economic actions is increasing production levels to lower the cost of sold goods (COGS). In an attempt to reduce fixed costs per unit, managers would produce more units spreading the fixed costs on a larger number of units. As the marginal cost per unit does not change, the total cost per unit declines. As a result, the cost of sold goods declines and the reported operating margins increase. Nonetheless, the firm will still incur the costs of over-produced units that are probably not going to be sold in the current period, leading to lower cash flow from operation.

To measure the abnormal production costs, we employed the following model, as in Roychowdhury (2006), and Cohen and Zarowin (2010):

$$\frac{\boldsymbol{PROD_t}}{\boldsymbol{A_{t-1}}} = \boldsymbol{\beta_0} + \frac{\boldsymbol{\beta_1}}{\boldsymbol{A_{t-1}}} + \boldsymbol{\beta_2}\frac{\mathbf{SALES_t}}{\mathbf{A_{t-1}}} + \boldsymbol{\beta_3}\frac{\mathbf{\Delta SALES_t}}{\mathbf{A_{t-1}}} + \boldsymbol{\beta_4}\frac{\mathbf{\Delta SALES_{t-1}}}{\mathbf{A_{t-1}}} + \boldsymbol{\varepsilon it} \qquad (\mathbf{3})$$

Abnormal *PROD* is the actual *PROD* minus the normal level of *PROD* calculated using the estimated coefficient. More specifically, the residuals from the regression (3) represent the abnormal PROD. Production costs (PROD) are defined as the sum of change in inventory and COGS during the period.

Abnormal discretionary expenditures (DISX)

Managers may choose to reduce discretionary expenditures such as advertising, R&D, and maintenance. Such decreases in discretionary expenditures will lead to reporting greater earnings and cash flow in the current period.

To measure the abnormal discretionary expenditures, we used the following model, as in Roychowdhury (2006), and Cohen and Zarowin (2010):

$$\frac{\boldsymbol{DISX_t}}{\boldsymbol{A_{t-1}}} = \boldsymbol{\beta_0} + \frac{\boldsymbol{\beta_1}}{\boldsymbol{A_{t-1}}} + \boldsymbol{\beta_2}\frac{\mathbf{SALES_{t-1}}}{\mathbf{A_{t-1}}} + \boldsymbol{\varepsilon it} \qquad (\mathbf{4})$$

Abnormal *DISX* is the actual *DISX* minus the normal level of *DISX* calculated using the estimated coefficient. DISX discretionary expenses are the difference between operation income and gross income from WorldScope. We ran these regressions for each combination of 2-digits GICS and year in each country.

Following Cohen and Zarowin (2010), RM1 was our first measure of real earnings management computed by adding the abnormal production costs to the abnormal discretionary expenses after multiplying the latter by negative one. We multiplied the abnormal discretionary expenses by negative one because the greater cut in these expenses, the higher the earnings. Therefore, the higher RM1 is, the more likely it is for firms to manage earnings upwards.

RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying both of them by negative one. We multiplied the abnormal cash flow because the lower cash flow, the greater manipulation of sales. Thus the higher RM2 is, the greater real earnings management is.

5.4.3. Measurement of country-specific factors

Most prior studies employed the anti-director rights index created by La Porta et al. (1998) to test the effect of investor protection on accounting quality (e.g. Leuz et al., 2003; Callao and Jarne, 2010; Filip and Raffournier, 2014). However, Spamann (2010) doubts the validity of anti-director rights index, as there are mistakes in coding leading to incorrect values for 33 countries of the overall 49 countries La Porta et al. (1998) studied. Furthermore, Kaufmann et al. (2007) argue that substantial changes in governance structure occurred during the period from 1996 through 2007. Therefore, this study uses different indicators of institutions since it covers the period after 2007 when La Porta et al. (1998) index might be out of date, keeping in mind that there is neither a straightforward nor an uncontroversial way to measure the institutions[57].

In section 4.7, we argued that higher judicial independence, large board independence, strong protection of minority shareholder, rigorous enforcement of accounting standards, strict enforcement of security laws and strong capital market enhanced investor protection. We ran a Factor Analysis (Principle Component) of the six country-level variables described in Table 5-3, five adopted from the World Economic Forum from 2008 to 2011 and one from the World Bank. Then we used one-factor loadings as a metric of investor protection; in chapter 6, we discuss in more details the factor loadings.

[57] Houqe et al. (2012) used World Economic Forum (2008) in addition to Kaufman et al.'s (2007) data for the freedom of the press to measure investor protection, and tested the variables one by one.

Table 5-3 Descriptions of country-specific factors

Variables	Description	Data source
JUD= Judicial Independence	To what extent is the judiciary in a country independent from influences of members of government, citizens, or firms? (1 = heavily influenced; 7 = entirely independent)	World Economic Forum (2008-2011)
BIND = Board Independence	The characteristics of corporate governance by investors and boards of directors in a country? (1 = management has little accountability to investors and boards; 7 = investors and boards exert strong supervision of management decisions)	World Economic Forum (2008-2011)
SEC = the enforcement of securities laws	The regulation and supervision of securities exchanges in a country? (1 = less effective; 7 = more effective)	World Economic Forum (2008-2011)
ENF= enforcement of auditing and accounting standards	Financial auditing and reporting standards regarding company financial performance? (1 = extremely weak; 7 = extremely strong)	World Economic Forum (2008-2011)
MIN= protection of minority shareholders	to what extent are the interests of minority shareholders protected by the legal system? (1 = not protected at all; 7 = fully protected)	World Economic Forum (2008-2011)
Market size= Market capitalization of listed companies (% of GDP).	the share price times the number of shares outstanding.	The World Bank (2007-2010)

5.4.4. Second stage models

In the second stage regressions, we investigated the effect of investor protection, enforcement of accounting standards, and strength of capital market on both accruals and real earnings

management. We ran the regression for each of them separately as there was a high correlation between them (see Table 6-4).

To measure the effect of investor protection on earnings management, we ran the following regression:

$$EM_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \beta_5 SHARES_{it} + \beta_6 INV + \varepsilon \quad (5)$$

Where:

EM[58] = earnings management metric (DAACR, RM1, RM2)

INV = investor protection metric obtained from the principle component analysis of six variables

ROA = net income divided by total assets firm i in year t

SIZE = natural logarithm of total assets for firm i in year t

LEV = end of year total liabilities divided by end of year equity book value for firm i in year t

GROWTH = sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1

SHARES = natural logarithm of outstanding shares for firm i in year t.

We included ROA, SIZE, LEV, GROWTH and SHARES to control for profitability, size, capital structure, performance and capital incentives respectively as earnings management measures may include errors correlated with firm characteristics. In section 4.3.6, we provided an explanation of the effect of firm characteristics on both accruals and real earnings management.

To measure the effect of enforcement of accounting standards on earnings management, we ran the following regression:

$$EM_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \beta_5 SHARES_{it} + \beta_6 ENF + \varepsilon \quad (6)$$

[58] DAACR is the residuals from the accruals model. RM1 and RM2 are the metrics of real earnings management. DACCR is the level of abnormal accruals. Abnormal accruals are estimated using modified DD; RM1 is the first measure of real earnings management computed by adding abnormal production costs to the abnormal discretionary expenses after multiplying the latter by negative one. RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one.

Where:

ENF is enforcement of auditing and accounting standards (WEF, 2008-2011)

Other variables as defined before.

To measure the effect of strength of capital market on earnings management, we ran the following regression:

$$EM_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \beta_5 SHARES_{it} + \beta_6 MS + \varepsilon \quad (7)$$

Where:

MS = Market size or capitalization (also known as market value) is the share price times the number of shares outstanding lagged by GDP (The World Bank, 2007-2010)

Other variables as defined before.

5.5. Conservatism and value relevance

In Chapter 7, we investigated the effect of investor protection, enforcement of accounting standards, and strength of capital market on conservatism and value relevance to capture earnings quality from equity valuation perspective and contracting perspective, which is the first study to do so. This is important because earnings quality means different things to different stakeholders. Holthausen and Watts (2001) argue that the value relevance research is of value from equity valuation perspective but this does not apply to contracting perspective and therefore it is of less value in measuring earnings quality. Watts (2003) and Leone et al. (2006) consider that earnings conservatism may be an optimal attribute from contracting perspective.

In the sections that follow, we present the models employed to estimate the effect of country-specific factors on conservatism first and then on value relevance.

5.5.1. Conservatism

We did not use Basu's (1997) model due to the biases in the model, which make the differential timeliness measure (DT) unreliable as argued by Givoly et al. (2007), Dietrich et al. (2007) and Patatoukas and Thomas (2011). Ball and Shivakumar (2005) provide a measure of timely loss recognition (conditional conservatism) based on the correlation between current accruals and contemporaneous cash flows, as follows:

$$ACC_{i,t} = \beta_0 + \beta_1 DCFO_{i,t} + \beta_2 CFO_{i,t} + \beta_3 DCFO_{i,t} * CFO_1 + \varepsilon \quad (8)$$

Where:

$ACC_{i,t}$ = total accruals in year t lagged by the total assets at the beginning of year t. Total accruals are the difference between earnings and operating cash flow in year t.

$CFO_{i,t}$ = cash flow from operations for firm i in year t deflated by total assets at the beginning of year t.

$DCFO_{i,t}$ = Dummy variable set equal to 1 if CFO <0 and 0 otherwise.

β_3 > 0 means more timely recognition of losses and thus higher conservatism.

To investigate the effect of investor protection, we ran the following regression based on Ball and Shivakumar (2005):

$$ACC_{i,t} = \beta_0 + \beta_1 DCFO_{i,t} + \beta_2 CFO_{i,t} + \beta_3 INV + \beta_4 DCFO_{i,t} * CFO_1 + \beta_5 DCFO_{i,t} * INV + \beta_6 CFO_{i,t} * INV + \beta_7 DCFO_{i,t} * CFO_{i,t} * INV + \varepsilon \quad (9)$$

If $\beta_7 > 0$, strong investor protection increases the conditional conservatism.

To test the effect of the enforcement of accounting standards on the extent of conservatism, we ran the following regression:

$$ACC_{i,t} = \beta_0 + \beta_1 DCFO_{i,t} + \beta_2 CFO_{i,t} + \beta_3 ENF + \beta_4 DCFO_{i,t} * CFO_1 + \beta_5 DCFO_{i,t} * ENF + \beta_6 CFO_{i,t} * ENF + \beta_7 DCFO_{i,t} * CFO_{i,t} * ENF + \varepsilon \quad (10)$$

If $\beta_7 > 0$, this means that strong enforcement of accounting standards increases the conditional conservatism.

To test the effect of capital market depth on conditional conservatism, we ran the following model:

$$ACC_{i,t} = \beta_0 + \beta_1 DCFO_{i,t} + \beta_2 CFO_{i,t} + \beta_3 MS + \beta_4 DCFO_{i,t} * CFO_1 + \beta_5 DCFO_{i,t} * MS + \beta_6 CFO_{i,t} * MS + \beta_7 DCFO_{i,t} * CFO_{i,t} * MS + \varepsilon \quad (11)$$

If $\beta_7 > 0$, this means that strong capital market increases the conditional conservatism.

5.5.2. Value relevance

The initial model for investigating value relevance, developed by Ohlson (1995), regresses stock price on book value per share and earnings per share. We built on the Ohlson (1995) model by using a model similar to that in Barth et al. (1998) and Davis-Friday et al. (2006). We added to Ohlson's model three variables to capture the effect of institutional factors: the institutional factor variable, the interaction between the institutional factor and book value per share, and the interaction between earnings per share and the institutional factor:

First, we examined the value relevance of book value and earnings conditional on investor protection.

$$MV_{it} = \beta_0 + \beta_1 BVPS_{it} + \beta_2 EPS_{it} + \beta_3 INV + \beta_4 INV * BVPS_{it} + \beta_5 INV * EPS_{it} + \varepsilon \quad (12)$$

Where:

$\mathbf{MV}_{it}$ = stock price after 3 months of fiscal year end

$\mathbf{BVPS}_{it}$ = book value per share of firm i in year t

$\mathbf{EPS}_{it}$ = earnings per share of firm i in year t

INV = investor protection

If β_4 and β_5 are significantly positive, the increase in value relevance on information measures will be attributed to the level of investor protection.

Second, we investigated the effect of enforcement of accounting standards on the value relevance of book value and earnings.

$$\boldsymbol{MV_{it} = \beta_0 + \beta_1 BVPS_{it} + \beta_2 EPS_{it} + \beta_3 ENF + \beta_4 ENF * BVPS_{it} + \beta_5 ENF * EPS_{it} + \varepsilon} \qquad (\mathbf{13})$$

If β_4 and β_5 are significantly positive, the enforcement of accounting standards improves the relevance of book value and earnings.

Third, we explored whether the strength of capital market enhanced the value relevance of book value and earnings.

$$\boldsymbol{MV = \beta_0 + \beta_1 BVPS_{it} + \beta_2 EPS_{it} + \beta_3 MS + \beta_4 MS * BVPS_{it} + \beta_5 MS * EPS_{it} + \varepsilon} \qquad (14)$$

If β_4 and β_5 are significantly positive, the stronger capital market, the more value relevance of book value and earnings.

5.6. Methodological issues

As mentioned before, WorldScope database provides a variable called "WS.AcctgStandardsFollowed" which shows whether the company is applying IFRS or not. If the output is 23, it means that the company is applying IFRS. However, there are shortcomings and a classification error in the field as reported by Daske et al. (2007)[59]. Moreover, Thomson Reuters classifies a company as an IFRS adopter if it mentions that in its annual report. In some countries such as Hong Kong, Singapore and Philippines, the local accounting standards applied are identical to IFRS but are under different names. In such countries, companies which apply the national standards are considered as non-adopters by WorldScope; therefore, in this study companies in these countries were considered as IFRS adopters if "WS.AcctgStandardsFollowed" gave 01(local standards) or 23 (IFRS).

[59] In their published paper in 2013, they did not mention this clearly (see Daske et al., 2013).

It is important to refer to a methodological issue regarding prior studies in terms of coding a company as an IFRS adopter or not. Houqe et al. (2012) used a dummy variable taking 1 for a given country in the years of mandatory IFRS adoption and 0 otherwise based on the report of Deloite in 2009 'Use of IFRS by jurisdiction'. This way of coding countries as mandating or not mandating IFRS adoption has shortcomings in that it presumes that all listed companies in a given country use IFRS in the preparation of their financial statements. However, in Germany and France, for example, domestic listed companies must use the local accounting standards in the preparation of their standalone financial statements (see section 2.3). Hence, companies without subsidiaries do not use IFRS in their financial statements even though the authors would consider them as IFRS adopters. Some firms in the EU did not adopt IFRS until 2007; therefore, it is misleading to consider all listed companies in the EU as IFRS adopters since 2005. Some other firms switched to IFRS before it became mandatory but were coded as IFRS adopters starting from 2005, so it is not surprising if those companies do not experience a significant change after mandatory IFRS adoption.

Jeanjean and Stolowy (2008) used the accounting standards followed in DataStream available through WorldScope. However, such methodology ignores that some countries were adopting national accounting standards identical to IFRS but under different names. Firms in that case would be classified as non-IFRS adopters before IFRS became mandatory, even though they were applying accounting standards identical to IFRS. For instance, as from 2003, South Africa mandated the implementation of SA GAAP, which are the same as IFRS but named SA GAAP. Then it mandated IFRS as issued by the IASB starting from 2005. One may ask, is there a significant change when moving from national standards, fully based on IFRS and issued under a national name, to IFRS as issued by the IASB?

Our work overcomes the limitations discussed above by dropping the early years of adoption, focusing on the effect of country-specific factors rather than the effect of standards, and looking in more depth at the context of countries involved in the study as explained in details in section 2.3.

Turning now to how previous studies corrected for cross-sectional and time-series dependence.

Gow et al. (2010) investigated the methods employed in the literature on earnings quality, cost of debt, equity capital, and conservatism of correcting for cross sectional dependence and time series dependence. Their sample included 121 papers published in *Journal of Accounting Research, Journal of Accounting and Economics and The Accounting Review* during the years from 2002 to 2006.The results revealed that 25 % of the papers investigated had ignored the existence of cross sectional and/or time series dependence. On the other hand, the other 75 % had shown some attempts to deal with both types of dependence following three methods from econometrics or other three approaches developed by accounting scholars, but these had not been assessed. They found that the methods used in the literature did not correct for both dependences. That is Newey-West, Fama-MacBeth, and Z2 Statistic correct either for cross sectional or over time dependence. Interestingly, they concluded that the inferences of studies on earnings quality, governance, and idiosyncratic risk were not robust to the use of 'well specified test statistics' (p.486).

In contrast to Petersen (2009), who concludes that clustering by both firm and time is not required in asset pricing and capital structure studies, Gow et al. (2010) find them necessary in a variety of accounting applications to reach valid inferences. They argue that both types of dependence are greater in accounting variables compared to finance variables. Clustering two dimensions, entity and time, corrects for both dependencies.

In this study, we ran pooled Ordinary Least Square (OLS) clustered by firm and year to correct for heteroscedasticity, autocorrelation and cross sectional dependence. Clustering by two dimensions (firm and year) produces unbiased standard errors in the presence of serial autocorrelation and cross sectional dependence.

5.7. Conclusion

This chapter has described the methods used in this investigation. More specifically, it has discussed sample selection, the models of accruals earnings management, real earnings management, conservatism and value relevance. It also presented in detail the measurement of institutional factors included in the study. Some methodological issues such as whether using signed or unsigned accruals and the assumption of market efficient were discussed. In addition, this chapter has described some methodological issues such as the market efficiency assumption and shortcomings of determining IFRS adopters in previous studies.

Chapter 6 Accruals and Real Earnings Management

6.1. Introduction

The turning point in the history of international accounting was in 2005 with the adoption of IFRS in the EU, Australia and South Africa. Since then, the number of countries using IFRS has increased significantly. The IASB, the successor to the IASC, aims to develop a single set of high quality accounting standards that are applicable internationally but has no power to enforce IFRS, which is in the hands of local authorities. Country-specific factors interact with IFRS in shaping accounting practices so that accounting quality under IFRS may differ across countries.

Earnings quality, captured by different metrics, has been studied in the literature to draw conclusions on the effect of IFRS adoption on accounting practices. Prior research employs accruals earnings management to test the effect of IFRS on accounting quality. However, recent studies (e.g. Graham et al., 2005) suggest that managers may manage earnings via real activities. Country-specific factors may drive different types of earnings management in that strong institutions may decrease the ability of managers to manipulate earnings via accruals but, at the same time, increase real earnings management whose effects might be negative. The present work fills this gap in the literature by investigating the effect of country-specific factors on both accruals and real earnings management under IFRS.

Exploring the effect of country-specific factors on earnings quality under IFRS is of great importance to determine whether IFRS alone is enough to secure consistent accounting practices. Further, it can be noted how country-specific factors may drive different earnings quality characteristics.

This chapter is concerned with the first empirical study of the thesis, earnings management. It investigates whether investor protection, enforcement and the strength of capital market influence earnings captured by accruals and real earnings management across 23 countries that mandated IFRS adoption in 2005 or before.

The remaining part of this chapter proceeds as follows. Section 2 presents the descriptive statistics. Section 3 includes the results. This is followed by the discussion in section 4. Section 5 deals with additional tests. Section 6 concludes the chapter.

6.2. Descriptive statistics

Chapter 2 provided an explanation of the countries of the present study, including information about the IFRS version, the year of adoption, and the companies that are required to comply with IFRS (see section 2.3). Chapter 5 included a detailed discussion of sample construction and the distribution of firms by country and industry (see section 5.3). This section presents descriptive statistics that are not highlighted in prior chapters.

Table 6-1 presents median values of accruals and real earnings management metrics on country level. Median values of DAACR, A_PROD, A_DISX, and A_CFO, are near to zero because they are the residuals from accruals and real earnings management models. RM1 is computed by adding abnormal production costs to the abnormal discretionary expenses multiplied by negative one. RM2 is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one. Therefore, the median values of RM1 and RM2 are relatively larger than those of A_PROD, A_DISX, and A_CFO.

Table 6-2 presents descriptive statistics for firm level variables used in the regression including accruals earnings management metric, real earnings management metrics and the control variables. All variables are winsorized at (p=0.01) to remove the effect of outliers in the regression.

Table 6-1 The medians of country-level variables

country	DACCR	A-PROD	A-DISX	A-CFO	RM1	RM2
Australia	0.0064	0.0303	-0.0523	0.0012	0.0774	0.0385
Austria	0.0028	-0.0012	-0.0258	0.0003	0.0376	0.0311
Belgium	0.00002	0.0061	-0.0011	-0.0051	0.0116	0.0057
Bulgaria	0.0015	0.0053	-0.0064	-0.0016	0.0071	-0.00007
Denmark	-7.99E-10	0.0034	-0.0038	-0.0034	0.0169	0.00981
Finland	1.40E-09	0.0004	-0.0075	0.0022	0.0037	0.0097
France	0.002631	0.0281	-0.0432	-0.0028	0.0743	0.0352
Germany	0.004076	0.0202	-0.0321	-0.0048	0.0550	0.0297
Greece	0.000899	0.0027	-0.0184	-0.0026	0.0121	0.0093
Hong Kong	-0.000115	0.0173	-0.0211	-0.0063	0.0414	0.0228
Italy	0.000888	0.0082	-0.0245	-0.0004	0.0485	0.0289
Jordan	0.000758	0.0009	-0.0061	0.0055	0.0117	0.0024
Netherlands	7.07E-10	0.0071	-0.0366	0.0005	0.0382	0.0247
Norway	0.000361	-0.0046	-0.0192	-0.0023	0.0092	0.0106
Oman	6.52E-10	0.0013	-0.0036	-0.0006	0.0016	0.0049
Philippines	5.30e-10	0.0046	-0.0083	-0.0034	0.0286	0.0064
Poland	0.002268	-0.0009	-0.0090	-0.0010	0.0221	0.0127
Portugal	3.34E-10	0.0005	-0.0017	0.0006	0.0057	0.0029
Singapore	0.001213	0.0066	-0.0149	0.0004	0.0185	0.0155
South Africa	-0.00069	0.0117	-0.0022	-0.0069	0.0151	0.0141
Spain	0.000071	0.0033	-.01422	.00010	0.0286	0.0072
Sweden	0.004922	0.0078	-.02703	0.0067	0.0436	0.0125
UK	0.005320	0.0252	-0.0385	0.0006	0.0676	0.0394

Notes to Table 6-1:
DACCR is the level of abnormal accruals. Abnormal accruals are estimated using the modified DD model; A_PROD represents abnormal production costs, where production costs are the sum of cost of goods sold, and the change in inventories. A_DISX is abnormal discretionary expenses, where discretionary expenses are the difference between operation income and gross income from WorldScope (SG&A expenses, R&D expenses and advertising expenses are included). A_CFO represents the level of abnormal cash flow from operations. RM1 is the first measure of real earnings management. RM1 is the first measure of real earnings management computed by adding abnormal production costs to the abnormal discretionary expenses after multiplying the latter by negative one. RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one.

The mean values of DAACR, A_PROD, A_DISX, and A_CFO are zero because the abnormal values are the residuals of the regression equations of accruals earnings management and real earnings management. The accruals earnings management metric is ADCCR with a median

equal to 0.001. The 25th percentile value of abnormal accruals is (-0.0287) and the 75th percentile value is .033. The median of abnormal production costs (A_PROD) is 0.013. The 25th percentile value of abnormal production costs is (-0.080), and the 75th percentile value is 0.108. The A_DISX median equals (-0.024). The 25th percentile value of abnormal discretionary expenses is (-0.091) and the 75th percentile is 0.051. The median of A_CFO is (-.001). The 25th percentile value of abnormal cash flow from operations is (-.0535) and the 75th percentile is .052.

Table 6-2 Descriptive statistics for firm-level regression variables (N = 16328)

Variables	Mean	Std.Dev	25%Percentiles	Median	75%Percentiles
DACCR	.000	.065	-.0287	.001	.033
A_PROD	.000	.221	-.080	.013	.108
A_DISX	.000	.206	-.091	-.024	.051
A_CFO	.000	.125	-.0535	-.001	.052
RM1	.003	.359	-.120	.038	.192
RM2	.001	.212	-.082	.022	.119
ROA	.018	.136	.0004	.038	.078
SIZE	2.32	.875	1.72	2.24	2.87
LEV	2.44	7.10	.424	.994	1.93
GROWTH	.122	.389	-.080	.0675	.243
SHARES	1.83	.92	1.145	1.873	2.53

Notes to Table 6-2:
DACCR is the level of abnormal accruals. Abnormal accruals are estimated using the modified DD model; A_PROD represents abnormal production costs, where production costs are the sum of cost of goods sold, and the change in inventories. A_DISX is abnormal discretionary expenses, where discretionary expenses are the difference between operation income and gross income from WorldScope (SG&A expenses, R&D expenses and advertising expenses are included). A_CFO represents the level of abnormal cash flow from operations. RM1 is the first measure of real earnings management computed by adding abnormal production costs to the abnormal discretionary expenses after multiplying the latter by negative one. RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. All variables are winsorized at p=0.01

The first measure of real earnings management is RM1 with a median equal to .038 and a standard deviation equal to 0.359. The 25th percentile of RM1 is -.120 while the 75th percentile is .192. RM2 is the second earnings management measure with a median equal to .022. The 25th percentile of RM2 is -.082 whereas the 75th percentile is 0.119. The mean and standard deviations of ROA are respectively (0.018, 0.136), SIZE (2.32, 0.875), LEV (2.44, 7.10), GROWTH (0.122, 0.389) and SHARES (1.83, 0.92). These values are consistent with previous studies (e.g. Francis and Wang, 2008; Hope et al., 2008; Houqe et al., 2012).

Table 6-3 provides the medians for six country-specific factors variables. Board independence, enforcement of securities laws, protection of minority shareholders, enforcement of accounting & auditing standards, and judicial independence are adopted from the World Economic Forum with scores from 1 (weak) to 7 (strong).

For the board independence variable, Sweden (5.95) followed by South Africa (5.75), Australia (5.67) and Singapore (5.62) have the highest scores, whereas Bulgaria (4.12), Greece (4), and Italy (3.97) have the lowest scores. South Africa (6.1), Sweden (6), Singapore (5.87), and Norway (5.8) have strong enforcement of securities laws while Italy (4.27), Spain (4.15), and Bulgaria (3.62) have the weakest enforcement of securities laws. In terms of the minority protection variable, Sweden (6.02), Finland (5.87), Norway (5.8) and South Africa (5.62) have the highest scores. On the other hand, Italy (3.57) and Bulgaria (3.57) have the lowest scores on minority protection.

For enforcement of accounting and auditing standards, South Africa (6.32), Sweden (6.2), Finland (6.15), and Singapore (6.15) have the strongest enforcement of accounting and auditing standards. Philippines (4.2), Bulgaria (4.3) and Italy (4.17) have the weakest enforcement of accounting and auditing standards.

Table 6-3 Medians of country-specific factors variables

Country	BIND	SEC	MIN	ENF	JUD	MS
Australia	5.67	5.77	5.35	5.97	6.3	1.20
Austria	5.17	4.97	5.15	5.9	5.87	0.28
Belgium	5.15	5.15	5.12	5.7	5.4	0.57
Bulgaria	4.12	3.62	3.57	4.3	2.92	0.25
Denmark	5.42	5.65	5.62	5.82	6.5	0.65
Finland	5.57	5.75	5.87	6.15	6.45	0.74
France	5.12	5.45	4.9	5.65	4.95	0.78
Germany	5.32	5.12	5.3	5.7	6.4	0.44
Greece	4	4.45	4.9	4.77	3.65	0.39
Hong Kong	4.92	5.62	5.1	6.02	6.05	5.14
Italy	3.97	4.27	3.57	4.17	3.55	0.26
Jordan	4.55	5.02	5.07	5.32	4.75	1.64
Netherlands	5.4	5.45	5.25	5.92	6.35	0.80
Norway	5.55	5.8	5.8	6.07	6.2	0.60
Oman	4.92	5.3	5.25	5.25	5.15	0.38
Philippines	4.75	4.2	4.2	4.85	3	0.58
Poland	4.42	4.92	4.35	4.95	4.1	0.34
Portugal	4.4	5	4.67	5	4.52	0.41
Singapore	5.62	5.87	5.62	6.15	5.72	1.67
South Africa	5.75	6.1	5.62	6.32	4.97	2.24
Spain	4.6	4.15	4.4	5.02	4.02	0.90
Sweden	5.95	6	6.02	6.2	6.57	1.04
UK	5.27	5.05	5.25	5.77	6.07	1.18

Notes to Table 6-3:
BIND is the board independence scores from the World Economic Forum (2008-2011). SEC is the enforcement of securities laws scores from the World Economic Forum (2008-2011). MIN is the protection of minority shareholders interest scores from the World Economic Forum (2008-2011). ENF is the enforcement of accounting & auditing standards scores from the World Economic Forum (2008-2011). JUD is the judicial independence scores from the World Economic Forum (2008-2011). MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

Sweden (6.57), Denmark (6.5), Finland (6.45), and Germany (6.4) have the highest scores on judicial independence whereas Philippines (3), Italy (3.55), and Bulgaria (2.92) have the lowest scores on judicial independence.

MS, in Table 6-3, is the market capitalisation of listed companies (% of GDP), which is adopted from the World Bank (2007-2010), and is defined as the share price times the number of shares outstanding. From Table 6-3, it can be seen that Hong Kong (5.14), South Africa (2.24), Singapore (1.67), and Jordan (1.64) are the largest equity markets. Poland (0.34), Austria (0.28), Italy (0.26), and Bulgaria (0.25) are the smallest equity markets.

Table 6-4 Correlation matrix for country-level regression variables

	BIND	SEC	MIN	ENF	JUD	MS
BIND	1					
SEC	.800***	1				
MIN	.869***	.805***	1			
ENF	.888***	.864***	.894***	1		
JUD	.805***	.628***	.779***	.835***	1	
MS	.085***	.388***	.181***	.438***	.307***	1

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

Notes to Table 6-4: BIND is the board independence scores from the World Economic Forum (2008-2011). SEC is the enforcement of securities laws scores from the World Economic Forum (2008-2011). MIN is the protection of minority shareholders interest scores from the World Economic Forum (2008-2011). ENF is the enforcement of accounting & auditing standards scores from the World Economic Forum (2008-2011). JUD is the judicial independence scores from the World Economic Forum (2008-2011). MS is the market capitalisation from the World Bank (2008-2011), defined as the share price times the number of shares outstanding.

Table 6-4 presents the correlations between country-level variables. It indicates that the correlations are all positive; significant at level 0.01 and high, except for two cases where the correlations are 0.085 and 0.181. Since the correlations among the six institutional variables are relatively high and each of them refers to the strength of investor protection (see section 4.7), we run Factor Analysis (Principle Component) of the six country-level variables, five adopted from the World Economic Forum from 2008 to 2011, and one from the World Bank (see Table 5-3). Then we use the

loadings of Factor 1 as a metric of investor protection as in Panel B in Table 6-5 shows[60].

Table 6-5 Investor protection variable

Panel A: Factor analysis/correlation

Number of comp. = 6
Trace = 6
Rotation: (unrotated)

Component	Eigenvalue	Difference	Proportion	Cumulative
Factor1	**4.30653**	3.27801	0.7178	0.7178
Factor2	1.02852	0.648666	0.1714	0.8892
Factor3	0.379858	0.229325	0.0633	0.9525
Factor4	0.150533	0.0537963	0.0251	0.9776
Factor5	0.0967371	0.0589202	0.0161	0.9937
Factor6	0.0378169	.	0.0063	1

LR test: independent vs. saturated: chi2(15) = 1.1e+05 Prob>chi2 = 0.0000

Panel B: Factor loadings (pattern matrix) and unique variances

Variable	Factor 1	Uniqueness
BIND	0.9083	0.175
SEC	0.9056	0.018
MIN	0.9228	0.1485
ENF	0.9772	0.045
JUD	0.8565	0.2663
MS	0.3483	0.8787

Panel C: Kaiser-Meyer-Olkin measure of sampling adequacy

Variable	kmo
BIND	0.7303
SEC	0.8599
MIN	0.8329
ENF	0.7329
JUD	0.8668
MS	0.2533
Overall	0.7468

Table 6-5 presents principle component factors from which we obtain our measure of investor protection. We chose Factor 1, which explains 71.78% of the total variation in the original variables, as the eigenvalue value equals 4.306, which is much larger than one as shown in Panel A of Table 6-5. Panel B of Table 6-5 presents the factors loading used as a measure of

[60] As a robustness check, we used the rotated loadings of Factor1 and Factor2 as a measure of investor protection (See Appendix 1 Table XI and Appendix 1 Table XII).

investor protection in this study. Panel C shows that Kaiser-Meyer-Olkin measure of sampling adequacy of our investor protection factor using six country-specific factors. The mean Kaiser-Myer-Olkin measure of sampling adequacy is 0.7468, greater than 0.5, which indicates that the investor protection factor captures the common factor of the six country-specific factors we used (Stewart, 1981).

The correlation matrix for firm-level regression variables is presented in Table 6-6. It indicates a weak correlation between most of them, which means the absence of the multicollinearity problem in the model. The highest correlation is between size and number of shares at 0.4006.The lowest is between growth and leverage at -0.009.

Table 6-6 Correlation matrix for firm-level regression variables

	ROA	SIZE	LEV	GROWTH	SHARES
ROA	1				
SIZE	0.20***	1			
LEV	-0.1399***	-0.083***	1		
GROWTH	0.1313***	-0.0129	0.0097	1	
SHARES	0.1063***	0.4006***	-0.072***	0.0634***	1

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

Notes to Table 6-6:

ROA is the return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t.

6.3. Results

Table 6-7 shows the correlation between earnings management proxies, accruals and real. The Pearson correlation between discretionary accruals (DACCR) and the first measure of real earnings management (RM1) is insignificant (0.004) while the Spearman correlation is significantly positive (0.021). The correlation between DAACR and RM2 is significantly positive (Pearson 0.059; Spearman 0.083). Hence, firms engage in both accruals earnings

management and real activities manipulation at the same time and this is consistent with previous studies (Zang, 2012; Cohen and Zarowin, 2010)[61]. While real earnings management actions are exercised across the year, accruals earnings management takes place at the end of the year when preparing financial reporting (Zang, 2012).

Table 6-7 Correlation matrix among earnings management proxies

	DACCR	RM1	RM2
DACCR	1	0.0203***	0.0813***
RM1	0.0045	1	0.864***
RM2	0.059***	.9108***	1

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

Notes to Table 6-7:

This table reports Pearson (lower triangle) and Spearman (upper triangle) correlation. DACCR is the level of abnormal accruals. Abnormal accruals are estimated using modified DD; RM1 is the first measure of real earnings management computed by adding abnormal production costs to the abnormal discretionary expenses after multiplying the latter by negative one. RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one.

The investor protection analysis is reported in Table 6-8. The relationship between DACCR and investor protection is significantly negative (β_6=-0.0009) while the relationship between real earnings management measures and investor protection is significantly positive (β_6= 0.0087 & 0.0057). This means that managers are less likely to overstate earnings via accounting policies in countries having relatively strong investor protection, whereas in such countries, managing earnings upwards by real actions is greater than in countries with weak investor protection. With regard to control variables, it can also be noticed that while accruals earnings management is lower in large firms, real earnings management is greater in large firms. Large firms are more scrutinised by regulators and external investors, therefore, they tend to engage in real earnings management.

[61] I ran the regression of accruals and included the real earnings management as an independent variable (See Appendix 1 Table XIII and Appendix 1 Table XIV). I found a positive and significant relationship between accruals and real earnings management.

Table 6-8 Investor protection and earnings management

$$EM_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \beta_5 SHARES_{it} + \beta_6 INV + \varepsilon \quad (5)$$

Independent Variables		(1) DACCR Coefficient *t-value*	(2) RM1 Coefficient *t-value*	(3) RM2 Coefficient *t-value*
ROA	β_1	0.230	-0.3159	-0.334
		*27.62***	*-7.90***	*-13.72***
SIZE	β_2	-0.0049	0.0165	0.011
		*-4.65***	*2.45***	*3.21***
LEV	β_3	0.0002	-0.0006	-0.0005
		*2.00***	*-0.72*	*-0.38*
GROWTH	β_4	-0.0012	-0.0325	-0.066
		-0.59	*-4.34***	*-3.96***
SHARES	β_5	-0.0017	-0.0133	-0.0066
		*-3.15***	*-3.02***	*-2.31***
INV	β_6	-0.0009	0.0087	0.0057
		-2.31	***2.83 *****	***2.67*****
Constant	β_0	0.010	-0.00009	-0.004
		2.48**	1.25	-0.27
Observations		16,328	16,328	16,328
Adj. R^2		0.227	0.0172	0.0491

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Table 6-8: DACCR is the level of abnormal accruals. Abnormal accruals are estimated using modified DD; RM1 is the first measure of real earnings management computed by adding abnormal production costs to the abnormal discretionary expenses after multiplying the latter by negative one. RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. INV is the investor protection computed by component principle analysis of six variables. These variables are: BIND is the board independence scores from the World Economic Forum (2008-2011). SEC is the enforcement of securities laws scores from the World Economic Forum (2008-2011). MIN is the protection of minority shareholders interest scores from the World Economic Forum (2008-2011). ENF is the enforcement of accounting & auditing standards scores from the World Economic Forum (2008-2011). JUD is the judicial independence scores from the World Economic Forum (2008-2011). MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

The relationship between profitability and accruals earnings management is positive and significant ($\beta_1 = 0.230$) whereas it is negative with real earnings management ($\beta_1 = -7.90$ & 13.72). This indicates that profitable firms engage in overstating earnings by accruals while less profitable firms take real actions. This finding can be justified by the fact that the sustained weak performance can provide less opportunity for accounting earnings management (DeAngelo et al., 1994), and that real earnings management has negative effects on future operating performance. For example, increasing current sales by granting discounts may influence future profitability once the companies return to old prices (Gunny, 2005).

Greater leverage is associated with greater accruals earnings management ($\beta_3 = 0.0002$) whereas there is no relationship between leverage and real earnings management. Firms with higher leverage are more likely to boost earnings via accruals earnings management. GROWTH is negatively associated with real earnings management (-0.0325 & -0.066), which is consistent with Cohen and Zarowin (2010) and Kothari et al. (2015), while there is no relationship between firms growth and accruals earnings management.

Finally, the relationship between SHARES and both accruals and real earnings management is negative and significant. This means that firms with a higher number of shares engage in less earnings management.

From Table 6-9, it is apparent that the relationship between DACCR and enforcement is significantly negative; in contrast, the relationship between enforcement and real earnings management activities is significantly positive. As such, strong enforcement of accounting standards curtails accruals earnings management, but increases real earnings management. In addition, the relationship between both streams of earnings management and the control variables is the same as reported in the analysis of investor protection.

Table 6-9 Enforcement of accounting standards and earnings management

$$EM_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \beta_5 SHARES_{it} + \beta_6 ENF + \varepsilon \quad (6)$$

Independent Variables		(1) DACCR Coefficient *t-value*	(2) RM1 Coefficient *t-value*	(3) RM2 Coefficient *t-value*
ROA	β_1	0.230	-0.3165	-0.3347
		*27.58****	*-7.94****	*-13.83****
SIZE	β_2	-0.0049	0.0166	0.0111
		*-4.77****	*2.49***	*3.27***
LEV	β_3	0.0002	-0.0001	-0.0001
		*1.98***	*-0.66*	*-0.33*
GROWTH	β_4	-0.0012	-0.0322	-0.0225
		-0.60	*-4.45****	*-4.03****
SHARES	β_5	-0.0016	-0.0139	-0.007
		*-2.93***	*-3.13***	*-2.46***
ENF	β_6	-0.0021	0.0172	0.0115
		-3.42	***3.05***	***3.08***
Constant	β_0	0.022	-0.0976	-0.0676
		*4.67****	-2.76**	-3.29***
Observations		16,328	16,328	16,328
Adj. R^2		0.2209	0.0173	0.0492

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1

Notes to Table 6-9:

DACCR is the level of abnormal accruals. Abnormal accruals are estimated using modified DD; RM1 is the first measure of real earnings management computed by adding abnormal production costs to the abnormal discretionary expenses after multiplying the latter by negative one. RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. ENF is the enforcement of auditing and accounting standards scores from the World Economic Forum (2008-2011).

For the effect of strength of capital market, the results are similar to those for investor protection and enforcement as reported in Table 6-10. That is, accruals earnings management is lower in big capital markets where real earnings management is greater.

The overall results suggest that:

I. Using accruals to manage earnings upwards is less in countries of relatively strict investor protection, stronger enforcement of accounting and auditing standards and large capital market. This finding supports Hypothesis1.

II. At the same time, managing earnings upwards via real actions is more likely in countries having rigorous investor protection, strong enforcement, and large capital market. This result confirms Hypothesis2.

6.4. Discussion

In comparison with accruals earnings management studies, there has been a lack of prior research into real earnings management, especially comparative studies across countries. Managers tend to manipulate real activities instead of accruals manipulation to avoid coming under regulatory scrutiny (Graham et al., 2005; Cohen et al., 2008). Country-specific factors may drive different streams of earnings management.

In addition, the focus in previous studies was mainly on the effect of the introduction of IFRS on earnings management. Our study investigates the effect of country-specific factors, namely investor protection, enforcement of accounting standards and market equity size, on both accruals and real earnings management across 23 countries mandating IFRS application.

In general, there is an indication that companies engage in both types of earnings management, accruals and real. At the same time, the findings reveal that strong investor protection, strong enforcement and large equity markets are associated with lower accruals earnings management and greater real earnings management and vice versa. Arguably, companies in countries with strong investor protection, strong enforcement and large equity markets boost earnings by using

real earnings management activities to a greater extent whereas accruals management is used to a lesser extent and vice versa.

Table 6-10 Strength of capital market and earnings management

$$EM_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 Size_{it} + \beta_3 Lev_{it} + \beta_4 Growth_{it} + \beta_5 Shares_{it} + \beta_6 INV + \varepsilon \quad (7)$$

Independent Variables		(1) DACCR Coefficient *t-value*	(2) RM1 Coefficient *t-value*	(3) RM2 Coefficient *t-value*
ROA	β_1	0.2313	-.2802	-0.339
		*28.96****	*-8.31****	*-14.20****
SIZE	β_2	-0.0056	.0153	0.0138
		*-5.41****	*2.72***	*3.63****
LEV	β_3	0.0002	-.0002	-0.000
		*1.85**	*-0.43*	*-0.05*
GROWTH	β_4	-0.0012	-.0276	-0.022
		-0.60	*-4.25****	*-4.05****
SHARES	β_5	-0.001	-.0198	-0.0132
		-0.19	*-3.40***	*-3.17***
MS	β_6	-0.00001	.00003	0.00007
		-2.93	***2.55***	***2.91***
Constant	β_0	.0115	.0069	-0.011
		2.91**	0.59	-1.01
Observations		16,328	16,328	16,328
Adj. R^2		0.221	0.0179	0.05

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1

Notes to Table 6-10:

DACCR is the level of abnormal accruals. Abnormal accruals are estimated using modified DD; RM1 is the first measure of real earnings management computed by adding abnormal production costs to the abnormal discretionary expenses after multiplying the latter by negative one. RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

Indeed, Zang (2012) finds that while companies in the post SOX period engage in both streams of earnings management, accruals earnings management actions have been taken to a minimal degree, and real earnings management to a large degree.

Schipper (2003), among others, noted that with tighter accounting standards, real earnings management might substitute accruals earnings management. In the same vein, managers would choose to switch to real activities instead of taking accounting actions to manage earnings in the presence of relatively tighter institutions.

Table 6-8 reports the investor protection analysis. The relationship between accruals earnings management and investor protection is significantly negative while the relationship between real earnings management measures and investor protection is significantly positive. As we posit, investor protection plays a key role in the outcomes of IFRS application. That is, accounting standards are only one of the determinants of accounting quality. Although all countries included in the sample have IFRS in place, better protection of outside shareholders is associated with lower accruals earnings management. This study used the signed accruals since the concern is overestimating the earnings rather than decreasing them. Therefore, the negative relationship between investor protection and accruals metric means that firms domiciled in countries with rigorous investor protection are less likely to boost reported earnings via accruals manipulation. This conclusion ties in with prior studies that emphasized the importance of protection of outside shareholders to secure high quality earnings after IFRS adoption (Leuz et al., 2003; Houqe et al., 2012). On the other hand, the positive relationship between investor protection and real earnings management metric suggests that managers of companies in countries with better investor protection tend to take real actions to beat earnings targets. Investor protection, which is deeply rooted in the legal system of the country as argued by La Potra et al. (2000), does not prohibit cutting some expenses or delaying some projects to meet

earnings benchmarks. Strong investor protection increases litigation; therefore, managers tend to increase earnings by real activities.

Moreover, conservative accounting practices are more common in countries with strong judicial systems, where firms report bad news faster than firms in countries with weak judicial regimes do (Bushman and Piotroski, 2006). The existence of conservative accounting, that constrains the opportunistic behaviour of managers; reducing investments can increase the reported earnings (e.g. Penman and Zhang, 2002). Ball et al, (2000) found that greater conservatism was associated with strong investor protection systems. Taken together, strong investor protection, which is more likely to be accompanied with conservative accounting, prevents accruals earnings management but does not prohibit the managers from taking real actions to beat the target.

For enforcement of accounting and auditing standards, the analysis revealed that accruals earnings management was less pronounced in countries with strong enforcement of accounting and auditing standards. At the same time, rigorous enforcement of accounting and auditing standards is positively associated with real earnings management. Strong enforcement mechanisms constrain opportunistic behaviour of managers, accounting actions, but do not impede the real accounting activities to increase the reported earnings. It is a logical finding that managers increase earnings through real actions when there is strong enforcement of accounting standards, in which case using accruals to increase earnings might be detected. Real earnings management activities do not infringe rules but influence future performance. This indicates the important role which local factors play in determining accounting practices under IFRS.

This finding is consistent with prior research that suggests an effect of enforcement on earnings quality (e.g. Houqe et al., 2012), and on the compliance with IFRS (e.g. Glaum et al., 2013). The IASB's objective is to issue enforceable and globally accepted accounting standards based

on principles, and, supposedly, these standards improve transparency, comparability, and quality of financial reporting. If we assume that IFRS adoption improves comparability and transparency of financial reporting, as the IASB claims, the enforcement of standards is important to ensure compliance with these standards.

The importance of enforcement of accounting standards after IFRS adoption stems from the fact that IASB has no power to enforce its accounting standards. The IASB, even though it is called international, is not as the United Nations Security Council, which has the power to oblige the members to implement its decision and ensure the compliance. In addition, IFRS are claimed to be principles based accounting standards; hence there is great room to exercise judgement by the preparers and auditors of financial reporting. The enforcement of IFRS remains the responsibility of local authorities and thus varies from one country to another causing potential difference in the outcomes of IFRS application. In fact, it would be more misleading to investors when companies in a country claim to apply IFRS where the compliance with IFRS is weak because of the poor quality enforcement in such a country. This demolishes the cornerstone the IASB depend on to legitimise the adoption of its accounting standards worldwide. These findings highlight the fact that adopting IFRS should coincide with some enhancements in the quality of local enforcement mechanisms.

With regard to the strength of equity market, the findings reveal that accruals earnings management is less pronounced in countries with large equity markets whereas real earnings management is more prevalent in such countries. In contrast, companies in countries with relatively small equity markets tend to manage their earnings via accruals instead of taking real actions. This conclusion is in line with prior research that concludes a relationship between the strength of equity markets and the outcomes of IFRS adoption (e.g. Leuz et al., 2003; Glaum et al., 2013). The source of capital fund can affect the quality of financial reporting. In large

equity markets, outsider-financing systems, shareholders who are the main source of finance do not have the same access to accounting information their counterparts in insider financing systems do. In small equity markets, the providers of capital such as banks, families or governments have privileged access to accounting information. Therefore, the need for financial reporting to fulfil the needs of shareholders is greater in large equity markets than in small equity markets. Such need to protect the interests of shareholders might require stronger legislation in countries with a large equity market resulting in better earnings quality.

Empirically, our findings show that there is a significant strong correlation between market capitalisation and enforcement of accounting and auditing standards (0.438). Countries with a large capital market are characterised with stronger enforcement of accounting standards. In addition, prior research suggests that outsider-financing systems are more prevalent in common law countries, where the investor protection is strong, while insiders systems are more common in Roman law countries (La Porta et al., 1997 and 1998). It seems that large equity market enhances the protection of investors, which in turn leads to less earnings manipulation. Leuz et al. (2003) suggests that strong equity market complements investor protection. Ball et al. (2000) argue that the shareholder corporate governance model is associated with higher litigation enforcement.

It is important to mention that real earnings management has some negative effects and is costly (Graham et al., 2005). In large capital markets, firms manage earnings upward via real earnings management activities despite the possible negative effect of real earnings management on the subsequent performance. In our regressions on the effect of country-specific factors on real earnings management, the relationship between firms' growth and real earnings management is significant and negative (see Table 6-8, Table 6-9 and Table 6-10). This means that managing earnings upward through real activities is associated with lower growth. Graham et al. (2005)

suggest that managers may choose to sacrifice the future performance for meeting the target as missing it would be costly. There appears to be a trade-off between short-term turmoil and long-term performance when managers become under the pressure of overreactions and financial markets. Such pressure motivates managers to undertake real actions to hit the targets even though they may negatively influence future performance.

The work by Doukakis (2014) found no significant effect of mandatory adoption on real or accrual-based earnings management while our results revealed that both accruals and real earnings management are influenced by country-specific factors. Taken together, the adoption of IFRS alone is not enough to secure consistent accounting practices.

Prior studies that reported better accounting quality after IFRS adoption ignore the fact that the changes in local circumstances may be attributed to the better earnings quality they found. Barth et al. (2008) did not confirm whether the better accounting quality they reported after IAS adoption was because of the adoption alone or because of the change in the firms' incentives and economic circumstances. To allow for the error associated with the effect of the change in economic circumstances, we covered the period of the financial crisis from 2007 to 2010, and focused on the effect of local factors on accounting quality. We do not claim that the crisis period is stable but we covered a period where there was no significant change in the economic circumstances as it would be if we covered both periods before and after the crisis. We confirm that country-specific factors shape accounting quality under IFRS; this answers the remaining questions left from the work of Barth et al. (2008).

Overall, earnings management under IFRS varies across countries due to the differences in country-specific factors governing the implementation of IFRS and the fact that country-specific factors drive different types of earnings management. On the face of it, earnings quality is better in countries with strong enforcement mechanisms, strong investor protection and

strong capital market since accounting earnings management is lower. However, tighter country-specific factors may increase the litigation associated with non-compliance with IFRS; therefore, there is a higher degree of real earnings management, which might have negative effects on future operating performance.

These results are important in that they shed light on an unexplored area, which is real earnings management across countries. Less accounting earnings management resulting from higher compliance with IFRS, which in turn is higher in strong institutions, is an indication of better earnings quality. The compliance with IFRS is necessary to secure consistent accounting practices across countries, although there would be higher real earnings management. To mitigate the effects of real earnings management, auditors and local regulators should look at the negative effects of real earnings management as the negative effects resulting from real earnings management might outweigh the benefits of less accounting earnings management.

6.5. Additional tests

In this section, we conduct a number of sensitivity checks; these include using a different model to capture accruals-earnings management, examining real earnings management strategies, and using an alternative metric for investor protection and enforcement of accounting standards. Most of the findings from using those alternatives are the same as reported above.

First, we used the modified Jones (1991) model to measure accruals earnings management as in Dechow et al. (1995):

$$\frac{ACCt}{A_{t-1}} = a_0 + a_1 \frac{1}{A_{t-1}} + a_2 \frac{(\Delta REV_t - \Delta REC_t)}{\mathrm{A_{t-1}}} + a_3 \frac{\mathrm{PPE\ t}}{\mathrm{A_{t-1}}} + \varepsilon it$$

We used the residuals from the equation above as a measure of earnings management. The results we found are the same as those we obtained with the modified DD model in terms of the

significance and the relationship between abnormal accruals and the independent variables (see Appendix 1 Table I, Table II, and Table III). Strong investor protection, strict enforcement of accounting standards and large capital market are associated with less accruals earnings management and greater real earnings management. For this reason, our results are robust enough to conclude that strong institutions decrease managing earnings upwards via accruals.

Second, we ran the regression for real earnings management metrics Abnormal Production Costs, Abnormal Discretionary Expenditures, and Abnormal Cash Flows, separately to address how country-specific factors shape real earnings management strategies. The results for abnormal production costs and discretionary costs were the same as the initial metrics with regard to significance and the relationship in that stronger country-specific factors are associated with higher real earnings management. As regards abnormal cash flows, their statistical relationship with investor protection was not significant but positive whereas their relationship with enforcement and capital market was significant and positive (See Appendix 1 Table IV, Table V, and Table VI). These findings indicate that managing earnings utilizing production costs and discretionary expenditures is greater in the settings of strong investor protection, strong enforcement, and large capital markets. Taking sales actions to manage earnings upwards is greater with strong enforcement and large capital markets while there is no significant relationship with investor protection. Therefore, we conclude that real earnings management is driven by production costs and discretionary expenditures.

Third, we further tested the effect of the protection of minority shareholders rights as an alternative measure of investor protection because it is widely used in the literature as a measure of investor protection (Houqe et al., 2012). We found that with stronger protection of minority rights, the lower the accruals earnings management, whereas real earnings

management was greater (See Appendix 1 Table VII). This is in the line with our findings of the effect of investor protection on earnings management.

Fourth, we also used the Anti-Self-dealing index[62] developed by Djankov et al. (2008) as a measure to capture investor protection. A higher value of Anti-self means that a transaction between two firms controlled by the same person is tightly regulated and is thereby an indicator of stronger investor protection. This index is composed of two indexes, the first is an ex ante-self-dealing index and the second is an ex post anti-self-dealing index. While the former captures the strength of anti-self-dealing laws, the latter captures their enforcement. The results we obtained were similar to that we found when using our investor protection measure (See Appendix 1 Table VIII). Stronger investor protection, captured by anti-self-dealing, decreases managing earnings via accruals but increases taking real actions to manage earnings. This further confirms our results on the effect of investor protection on accruals and real earnings management.

Fifth, we did principle component analysis of the five variables, JUD, BIND, SEC, ENF, and MIN, excluding the variable of capital market strength to obtain alternative metric of investor protection. We ran the regression by including the factor variable we obtained from the five aforementioned ones, and the capital market variable in the model. The findings show that accruals earnings management are less in countries with strong investor protection and strong capital market, where real earnings management is more pronounced (See Appendix 1 Table IX). The above results of using alternative measures of investor protection confirm our results when we used the loadings of Factor1 in our analysis.

Sixth, we also tested the effect of enforcement of securities laws as an alternative measure of enforcement. The results showed that strong enforcement of securities laws decreased accruals

[62] The data was available for all countries except Oman. However, we used the average of Egypt and Jordan for Oman since Arab World countries are similar with no great difference.

earnings management while real earnings management was greater (See Appendix 1 Table X). These findings are the same as we obtained when using the enforcement of accounting standards. For this reason, our results are robust enough to conclude that strong enforcement of accounting standards decreases overstating earnings via accruals, but increases them by real actions.

Finally, as a robustness check, we used the rotated loadings of Factor1 and Factor2 as a measure of investor protection, instead of Factor1 which we used in our initial analysis. In our initial analysis, we used Factor1 because the Eigenvalue was 4.306, much larger than 1, and did not use Factor2 as it was not much larger than 1. Appendix 1 Table XI presents descriptive statistics of the two factors while Appendix 1 Table XII illustrates the analysis of investor protection captured by two factors. Appendix 1 Table XII shows that both factors were negatively associated with accruals earnings management, and positively with real earnings management. This result is the same as obtained when using only Factor1 as a measure of investor protection.

6.6. Conclusion

This chapter examined the effect of country-specific factors on both accruals and real earnings management across 23 countries that mandate IFRS based accounting standards. Although prior research has investigated the effect of some institutions on accruals manipulation across different countries (e.g. Houqe et al., 2012; Ahmed et al., 2013) with a focus on the effect of IFRS, this is the first paper to examine the effect of country-specific factors on both accruals and real earnings management under IFRS.

To capture discretionary accruals, we used the modified Dechow and Dichev model. To capture real earnings management, we followed Roychowdhury (2006) and Cohen and Zarowin (2010)

and measured the abnormal level of cash flow from operations, discretionary production costs and discretionary expenses.

The overall results suggest that accruals earnings management is less likely in countries with stringent investor protection, strong accounting standards enforcement, and a large capital market. With respect to real earnings management, the results indicate that firms in countries with strong institutions tend to overstate earnings via real activities more than via accruals.

The study indicates that applying a common set of accounting standards is not enough to obtain consistent accounting outcomes across different jurisdictions, and that different country-specific factors drive different types of earnings management. Tighter investor protection, stricter enforcement of accounting standards, and a large capital market all lead to less accounting earnings management, which means better earnings quality. The possible negative effects of real earnings management resulting from the aforementioned three factors do not mean that these factors cause earnings to be of less quality. Rather, they mean that auditors and local regulators should assure that the negative effects of real earnings management do not outweigh the benefits of less accounting earnings management. Investigating the net effect of accruals and real earnings management is beyond the scope of this study.

Our findings are important in that they highlight the effect of country-specific factors on both accruals and real earnings management across 23 countries mandating IFRS application. To the best of my knowledge, this study is the first to examine the effect of country-specific factors on real earnings management worldwide. Prior research has mainly focused on whether the switch to IFRS has enhanced earnings quality, captured by accruals earnings management, whereas this study concentrates on the effect of country-specific factors on both accruals and real earnings management. The findings provide new insights on the role of country-specific factors

after IFRS adoption across countries in terms of the switch to real earnings management with the presence of strong institutions.

Chapter 7 Conservatism and Value Relevance

7.1. Introduction

Given that earnings quality is contingent on decision context (Dechow et al., 2010), exploring earnings quality from both contracting perspective and equity valuation perspective, conditional on country specific factors, will provide a better picture of how earnings quality differs under IFRS due to local factors differences. By doing so, conclusions can also be derived on whether earnings quality differs under IFRS. If accounting quality is not consistent across countries because of the differences in country-specific factors, then this means that IASB did not achieve its aim of developing high quality accounting standards applicable internationally and thus comparable financial statements. That is, the accounting standards are inconsequent without a proper enforcement.

This part of the thesis presents and discusses the findings of the second empirical study. It deals with the effect of investor protection, strength of enforcement of accounting standards, and strength of capital market on conservatism across 23 countries that enforced IFRS in 2005 or before. Along with conservatism, it describes the effect the above-mentioned factors have on the value relevance of book values and earnings. That is, conservatism captures earnings quality from a contracting perspective while value relevance measures the quality from an equity valuation perspective (see section 4.4).

This chapter is composed of six themed sections, including the introduction. Section 2 provides the descriptive statistics. Section 3 moves on to present the findings. Section 4 presents the discussions. This is followed by additional tests in section 5. Section 6 concludes the chapter.

7.2. Descriptive statistics

In Chapter 5, Table 5-1 and Table 5-2 provide information on the sample and its distribution by country and industry, and in Chapter 6 Table 6-3 shows the summary statistics of country-specific factors. Table 6-4 presents the descriptive statistics for the factor analysis we ran to obtain the investor protection measure. In this section, we will focus on descriptive statistics that are unique to the statistical analysis of the current empirical chapter.

Table 7-1 provides additional descriptive statistics of the market value, book value per share and earnings per share of the sample firms across the 23 countries. To eliminate the effect of outliers, we winsorized all variables at 2%. The highest mean of the market value per share is in Belgium (38.04), followed by Austria (37.76), Denmark (36.57), France (35.92), Netherlands (30.66), Germany (27.02), Norway (25.18), Spain (16.73), Finland (14.055), Sweden (13.56), Bulgaria (12.97) and Italy (12.94). The lowest mean of the market value per share is in Philippines (0.358), followed by Singapore (0.673), Hong Kong (1.879), Oman (2.362), Portugal (3.597), Jordan (4.98), Australia (5.48), South Africa (6.108), Greece (7.160) and the UK (8.08).

Almost the same ranking of market value per share, the highest average book value per share is in Austria (31.44), followed by Denmark (30.336), Belgium (29.20), France (29.03), and Netherlands (23.32). The lowest average book value per share is in Philippines (0.183), followed by Singapore (0.647), Oman (1.99), and Hong Kong (2.044).

The highest average earnings per share is in Belgium (2.47), followed by France (1.882), Austria (1.447), Denmark (1.291), Germany (1.211), and Netherlands (1.151). The lowest average earnings per share is in Philippines (0.019), followed by Hong Kong (0.035), Singapore (0.036), Greece (0.063), and Australia (0.144).

The difference between the standard deviations and means of all variables is reasonable. Taking the pooled sample, the standard deviation is greater than the mean by (2.26) for the stock price, by (2.55) for the book value and by (3.55) for the earnings per share. This is consistent with previous studies (e.g. Davis-Friday et al, 2006; Agostino et al., 2010).

Table 7-2 shows the summary statistics for accruals and cash flow. Both variables are deflated by the total assets at the beginning of the period. The highest mean of the lagged total accruals is in Poland (-.0055) followed by Oman (-.0098), Bulgaria (-0.0125), Singapore (-0.0176) and Hong Kong (-.0198). On the other hand, Austria (-.0625), Norway (-.0609), Netherlands (-.0586), Denmark (-.0559), Australia (-.0545) and Germany (-.0513) have the lowest average of total accruals. The average value of pooled lagged total accruals is (-.0385) while the standard deviation is (.0986).

It can be seen from the data in Table 7-3 that South Africa has the largest mean of the lagged operating cash flows (0.1333). Oman comes after with (0.1106), followed by Philippines (0.0953), Netherlands (0.0934), Austria (0.0831), and Belgium (0.0825). On the contrary, Bulgaria (0.03), Greece (0.0334), Poland (0.0411), Norway (0.0432), and Portugal (0.044) have the lowest mean values of the lagged operating cash flows. The mean value of the pooled lagged cash flows from operation is (.0720) whereas the standard deviation is (.1315). We winsorized both total accruals and operating cash flows at top and bottom at 1% to remove the effect of outliers.

Table 7-1 Summary of MV, BVPS and EPS

Country	MV					BVPS					EPS				
	Mean	**SD**	**25%**	**Median**	**75%**	**Mean**	**SD**	**25%**	**Median**	**75%**	**Mean**	**SD**	**25%**	**Median**	**75%**
Australia	5.480	17.949	.221	.850	3.320	3.846	16.285	.206	.723	1.982	.144	.717	-.009	.048	.215
Austria	37.763	43.904	12.493	23.461	39.371	31.449	41.500	10.550	18.096	30.742	1.447	3.409	-.253	1.744	2.980
Belgium	38.048	45.125	5.443	18.974	57.755	29.201	40.633	3.192	10.191	37.775	2.472	3.371	.095	1.114	4.967
Bulgaria	12.973	25.382	1.172	4.053	12.580	16.292	22.423	1.679	8.469	21.992	.347	2.378	-.343	.069	.547
Denmark	36.571	49.954	2.731	12.997	54.255	30.336	44.977	1.587	9.631	38.528	1.291	3.464	-.287	.401	2.703
Finland	14.055	18.351	3.559	9.293	18.289	9.858	17.899	1.996	5.417	11.190	.626	1.415	-.0286	.446	1.293
France	35.920	43.865	6.416	18.318	47.380	29.033	39.109	4.779	13.403	34.266	1.882	3.117	.0417	1.139	3.425
Germany	27.028	37.910	4.766	11.628	32.847	17.900	27.870	3.435	8.601	20.802	1.211	2.760	-.0715	.585	2.146
Greece	7.160	16.165	.812	1.906	6.014	9.394	22.526	1.662	3.265	5.891	.063	1.056	-.201	.030	.279
Hong Kong	1.879	13.415	.057	.164	.528	2.044	15.262	.063	.170	.394	.035	.402	.001	.0136	.039
Italy	12.945	27.404	1.591	4.298	12.01	10.250	24.439	1.401	3.465	7.800	.269	1.369	-.115	.160	.607
Jordan	4.985	11.098	1.537	2.670	4.164	2.315	1.862	1.397	1.750	2.534	.243	.626	.011	.115	.284
Netherlands	30.669	39.850	8.658	18.497	34.417	23.327	38.120	5.562	10.176	22.130	1.151	2.379	.148	1.287	2.279
Norway	25.180	47.585	1.897	5.819	19.675	21.370	42.682	1.265	3.844	16.225	.207	2.169	-.311	.110	.743
Oman	2.362	4.485	.402	1.115	2.578	1.991	4.438	.155	.627	1.428	.195	.450	.0360	.096	.196
Philippines	.358	1.516	.023	.065	.191	.183	.364	.026	.050	.132	.019	.053	.001	.006	.0184
Poland	10.913	27.508	1.035	3.270	8.360	9.409	25.756	.908	2.441	5.905	.257	1.142	.003	.118	.482
Portugal	3.597	3.461	1.042	2.148	5.291	3.483	4.143	.911	2.271	4.145	.013	1.090	-.063	.155	.412
Singapore	.673	2.463	.078	.154	.374	.647	4.764	.106	.174	.367	.036	.153	.003	.018	.042
South Africa	6.108	12.875	.457	1.857	6.283	2.417	3.424	.306	1.098	3.093	.393	.909	.027	.143	.437
Spain	16.379	29.873	3.399	8.332	16.331	12.169	26.317	2.066	4.636	9.816	.892	1.913	.012	.500	1.302
Sweden	13.560	31.638	1.043	4.414	11.225	9.969	29.838	.500	2.267	5.539	.252	1.287	-.0184	.183	.713
UK	8.08	23.197	.525	1.869	6.128	4.819	18.375	.334	1.199	2.904	.196	.950	-.0034	.097	.357
Pooled	**13.252**	**29.988**	**.366**	**2.426**	**10.464**	**10.159**	**25.925**	**.280**	**1.677**	**6.724**	**.513**	**1.822**	**-.0003**	**.065**	**.555**

Notes to Table 7-1: **MV** is stock price per share. **BVPS** is book value per share. **EPS** is earnings per share. All variables are winsorized at top and bottom 2% to remove the effect of outliners. All variables are in US Dollars.

Table 7-2 Summary of ACC and CFO

Country	ACC					CFO				
	Mean	**SD**	**25%**	**Median**	**75%**	**Mean**	**SD**	**25%**	**Median**	**75%**
Australia	-.0545	.107	-.104	-.045	-.0010	.0797	.180	.0137	.0910	.172
Austria	-.0625	.0651	-.098	-.0553	-.0308	.0831	.0706	.0334	.0827	.121
Belgium	-.0469	.100	-.0858	-.0450	-.0004	.0825	.1246	.0377	.0858	.1421
Bulgaria	-.0125	.114	-.0718	-.0135	.0465	.030	.1088	-.0195	.0177	.0808
Denmark	-.0559	.1049	-.0994	-.0592	-.0118	.0513	.1633	-.0016	.0750	.1426
Finland	-.0482	.0801	-.0914	-.0437	-.0025	.0744	.116	.0265	.0813	1421
France	-.0445	.08292	-.0806	-.0444	-.0061	.0729	.0963	.0289	.0722	.117
Germany	-.0513	.0877	-.0933	-.0450	-.0048	.0749	.119	.0246	.0772	.128
Greece	-.0305	.0870	-.076	-.0316	.0105	.0334	.0909	-.0153	.0294	.0732
Hong Kong	-.0198	.0944	-.0751	-.0210	.0304	.0781	.1186	.0143	.0710	.140
Italy	-.0428	.0769	-.0792	-.0433	-.0032	.0559	.0883	.0110	.0513	.1036
Jordan	-.0264	.0992	-.0858	-.0313	.0200	.0738	.1149	.0125	.0688	.138
Netherlands	-.0586	.0889	-.0964	-.0475	-.0115	.0934	.0967	.0469	.0937	.1373
Norway	-.0609	.1132	-.1081	-.0554	-.0082	.0432	.1730	-.00515	.0653	.1288
Oman	-.0098	.1240	-.0697	-.0228	.0427	.1106	.1459	.0313	.1030	.2027
Philippines	-.0212	.1143	-.0838	-.0310	.0180	.0953	.1407	.0216	.0779	.1683
Poland	-.0055	.1334	-.0762	-.0202	.0517	.0411	.1332	-.0074	.0421	.1043
Portugal	-.0387	.0932	-.0716	-.0411	-.0022	.0440	.0953	-.0043	.0539	.0883
Singapore	-.0176	.1064	-.0780	-.0229	.0376	.0811	.1144	.0177	.07126	.1459
South Africa	-.0338	.0923	-.0814	-.0327	.0197	.1333	.1159	.0628	.1213	.1905
Spain	-.0447	.0842	-.0804	-.0413	-.0055	.0805	.1139	.0238	.0728	.1202
Sweden	-.0439	.1036	-.0877	-.0396	.0048	.0599	.1756	.0115	.0819	.1448
UK	-.0479	.0981	-.0900	-.0430	-.0032	.0719	.1430	.0223	.0792	.1401
Pooled	**-.0385**	**.0986**	**-.0850**	**-.0381**	**.0077**	**.0720**	**.1315**	**.0159**	**.0727**	**.1355**

Notes to Table 7-3: ACC is total accruals calculated as the difference between earnings and cash flow from operations. **CFO** is cash flow from operations. Both variables are deflated by total assets at the beginning of the period and winsorized at top and bottom 1% to remove the effect of outliners. All variables are in US Dollars.

7.3. Results

We assessed the effect of investor protection on the timeliness of loss recognition through the regression in Table 7-3. The results concerning the effect of investor protection on conservatism, as shown in Table 7-3, indicate that strong investor protection increases the timely loss recognition. That is, the coefficient($\beta_7 = 0.110$) on the effect of investor protection on the timeliness of loss recognition is positive and significant.

Table 7-3 The effect of investor protection on conservatism measured as the relative timeliness of loss recognition

$$ACC_{i,t} = \beta_0 + \beta_1 DCFO_{i,t} + \beta_2 CFO_{i,t} + \beta_3 DCFO_{i,t} * CFO_1 + \beta_4 INV + \beta_5 DCFO_{i,t} * INV + \beta_6 CFO_{i,t} * INV + \beta_7 DCFO_{i,t} * CFO_{i,t} * INV + \varepsilon \quad (9)$$

	β_0	β_1	β_2	β_3	β_4	β_5	β_6	$\boldsymbol{\beta_7}$
Coefficient	-.0110	.021	-.359	.255	.002	.004	.0202	**.110**
(t-statistic)	-1.34	4.32***	-36.82***	3.95***	1.73*	6.65***	2.44 **	**6.01*****
Adj. R^2	17.69 %							
Obs.	16328							

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Table 7-3:

ACC is total accruals in year t lagged by the total assets at the beginning of year t. CFO is cash flow from operations for firm i in year t. DCFO is a Dummy variable set equal to 1 if CFO <0 and 0 otherwise. INV is the investor protection for a country. INV is the investor protection computed by component principle analysis of six variables. These variables are: BIND is the board independence scores from the World Economic Forum (2008-2011). SEC is the enforcement of securities laws scores from the World Economic Forum (2008-2011). MIN is the protection of minority shareholders interest scores from the World Economic Forum (2008-2011). ENF is the enforcement of accounting & auditing standards scores from the World Economic Forum (2008-2011). JUD is the judicial independence scores from the World Economic Forum (2008-2011). MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

Similarly, Table 7-4 shows a positive and significant coefficient (β_7=0.479), which captures the effect of accounting standards enforcement on the timeliness of loss recognition. The timely

loss recognition increases marginally in countries with strong enforcement of accounting standards.

Table 7-4 The effect of enforcement on conservatism measured as the relative timeliness of loss recognition

$$ACC_{i,t} = \beta_0 + \beta_1 DCFO_{i,t} + \beta_2 CFO_{i,t} + \beta_3 DCFO_{i,t} * CFO_1 + \beta_4 ENF + \beta_5 DCFO_{i,t} * ENF + \beta_6 CFO_{i,t} * ENF + \beta_7 DCFO_{i,t} * CFO_{i,t} * ENF + \varepsilon \quad (10)$$

	β_0	β_1	β_2	β_3	β_4	β_5	β_6	$\boldsymbol{\beta_7}$
Coefficient	-.0609	-.0851	-.686	-2.451	.0087	.0190	.05827	**.479**
(t-statistic)	-2.90**	-3.76***	-3.65***	-4.20	1.96**	5.47***	1.79*	**5.16*** **
Adj. R^2	17.62 %							
Obs.	16328							

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Table 7-4:

ACC is total accruals in year t lagged by the total assets at the beginning of year t. CFO is cash flow from operations for firm i in year t. DCFO is a Dummy variable set equal to 1 if CFO <0 and 0 otherwise. ENF is the enforcement of auditing and accounting standards scores from the World Economic Forum (2008-2011).

On the question of the effect of the strength of capital market, the study found no significant effect of capital markets on the timeliness of loss recognition as shown in Table 7-5, in which the coefficient (β_7=0.0001) is not significant. This is consistent with Ball et al. (2008) who found no effect of equity market size on conservatism. These findings support the notion that the demand for conservative accounting is driven by legal factors.

Our findings indicate that strong investor protection and strong enforcement of accounting standards are associated with greater degree of conditional conservatism; however, the desirability of higher conservatism is dependent on the perspective it serves. From a contracting

perspective, we may conclude that there are better earnings quality in countries with strong investor protection and strong enforcement of accounting standards.

Table 7-5 The effect of strength of capital market on conservatism measured as the relative timeliness of loss recognition

$$ACC_{i,t} = \beta_0 + \beta_1 DCFO_{i,t} + \beta_2 CFO_{i,t} + \beta_3 DCFO_{i,t} * CFO_1 + \beta_4 MS + \beta_5 DCFO_{i,t} * MS + \beta_6 CFO_{i,t} * MS + \beta_7 DCFO_{i,t} * CFO_{i,t} * MS + \varepsilon \quad (11)$$

	β_0	β_1	β_2	β_3	β_4	β_5	β_6	$\boldsymbol{\beta_7}$
Coefficient	-.0199	.0170	-.349	.305	.0000	.0000	.0000	**.0001**
(t-statistic)	-2.17**	2.07**	-32.76***	3.31**	2.13**	2.41**	0.66	**0.47**
Adj. R^2	16.17 %							
Obs.	16328							

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Table 7-5:

ACC is total accruals in year t lagged by the total assets at the beginning of year t. CFO is cash flow from operations for firm i in year t. DCFO is Dummy variable set equal to 1 if CFO <0 and 0 otherwise. MS is the strength of capital market. MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

On the other hand, there is a need to investigate the effect of country specific factors on value relevance of accounting information. The presence of conservatism, which is influenced by institutional factors, may not be optimal from an equity evaluation perspective.

To that end, we tested the effect of investor protection on value relevance of book value and earnings via the regression in Table 7-6. From Table 7-6, strong investor protection does not increase the value relevance of earnings; rather, it marginally increases the value relevance of book values. The coefficient (β_4) is positive and significant whereas the coefficient β_5 is not significant.

Table 7-6 The effect of investor protection on the value relevance of book values and earnings

$$MV_{it} = \beta_0 + \beta_1 BVPS_{it} + \beta_2 EPS_{it} + \beta_3 INV + \beta_4 INV * BVPS_{it} + \beta_5 INV * EPS_{it} + \varepsilon \quad (12)$$

	β_0	β_1	β_2	β_3	β_4	β_5
Coefficient	2.525	.913	2.933	-.007	.0241	.0631
(t-statistic)	12.32***	42.57***	4.40***	-0.11	1.79*	0.56
Adj. R^2	76.11%					
Obs.	16328					

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Table 7-6: MV_{it} is market value per share three months after the fiscal year end. $\boldsymbol{BVPS_{it}}$ is book value per share of firm i in year t. $\boldsymbol{EPS_{it}}$ is earnings per share of firm i in year t. INV is the investor protection computed by component principle analysis of six variables. These variables are: BIND is the board independence scores from the World Economic Forum (2008-2011). SEC is the enforcement of securities laws scores from the World Economic Forum (2008-2011). MIN is the protection of minority shareholders interest scores from the World Economic Forum (2008-2011). ENF is the enforcement of accounting & auditing standards scores from the World Economic Forum (2008-2011). JUD is the judicial independence scores from the World Economic Forum (2008-2011). MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

Table 7-7 Enforcement and the value relevance of book values and earnings

$$MV_{it} = \beta_0 + \beta_1 BVPS_{it} + \beta_2 EPS_{it} + \beta_3 ENF + \beta_4 ENF * BVPS_{it} + \beta_5 ENF * EPS_{it} + \varepsilon \quad (13)$$

	β_0	β_1	β_2	β_3	β_4	β_5
Coefficient	3.501	.450	2.315	-.170	0813	.104
(t-statistic)	2.28**	1.95*	0.86	-0.65	2.02**	0.22
Adj. R^2	76.03%					
Obs.	16328					

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Table 7-7:

MV_{it} is market value per share three months after the fiscal year end. $BVPS_{it}$ is book value per share of firm i in year t. EPS_{it} is earnings per share of firm i in year t. ENF is the enforcement of auditing and accounting standards scores from the World Economic Forum (2008-2011).

In Table 7-7, we assessed the effect of enforcement on value relevance of earnings and book values. Similar to investor protection, strong enforcement contributes to the increase in book

values but has no effect on the value relevance of earnings as the coefficient (β_4) is positive and significant. These results for value relevance are consistent with Davis-Friday et al. (2006) who found that weak corporate governance decreases the value relevance of book values with no effect on earnings during the crisis. In contrast, the strength of the capital market increases the informativeness of earnings since the coefficient ($\beta_5 = .00574$) is positive and significant, as is apparent from Table 7-8. This is consistent with the findings of Ali and Hwang (2000), who concluded that there is higher value relevance in countries where the financing system is market oriented.

Table 7-8 The effect of strength of capital market on the value relevance of book values and earnings

$$MV_{it} = \beta_0 + \beta_1 BVPS_{it} + \beta_2 EPS_{it} + \beta_3 MS + \beta_4 MS * BVPS_{it} + \beta_5 MS * EPS_{it} + \varepsilon \quad (14)$$

	β_0	β_1	β_2	β_3	β_4	β_5
Coefficient	3.498	.9098	2.429	-.0065	-.0000	.00574
(t-statistic)	7.58***	28.11***	3.53***	-4.30***	-0.22	2.37**
Adj. R^2	76.03%					
Obs.	16328					

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Table 7-8:

MV_{it} is market value per share three months after the fiscal year end. $BVPS_{it}$ is book value per share of firm i in year t. EPS_{it} is earnings per share of firm I in year t. MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

The overall results suggest that:

I. Strong investor protection increased the conditional conservatism of reported earnings as Hypothesis 3 predicted.

II. Rigorous enforcement of accounting standards enhanced conditional conservatism, which means we accept Hypothesis 4.

III. There was no effect of capital market strength on conservatism as we predicted in Hypothesis 5.

IV. The value relevance of book values increased in countries with strong investor protection, which did not influence the value relevance of earnings; therefore, we accept Hypothesis 6.

V. Strict enforcement of accounting standards increased the value relevance of book values but had no effect on earnings as assumed in Hypothesis 7.

VI. In strong capital market, the value relevance of earnings was larger than in weak capital market, whereas there was no significant difference in the value relevance of book values across those markets, as in Hypothesis 8.

7.4. Discussion

Our sample included 23 countries that put IFRS in place in 2005 or before. The IASB conceptual framework, issued in 1989, included prudence as a feature of financial reporting but in 2006, the IASB released a discussion paper in collaboration with FASB seeking to drop prudence from the conceptual framework. In spite of the opposition to the IASB plan, the IASB conceptual framework issued in 2010 removed prudence as a desirable attribute of financial statement due to its conflict with neutrality. Prior studies on the effect of IFRS adoption on conservatism concluded that there was a decline in conservatism after the mandatory adoption of IFRS (e.g. Chen et al., 2010; Ahmed et al., 2013) despite the fact that those studies covered the period when prudence was in the conceptual framework. André et al. (2015) demonstrate that strong enforcement and strong auditing quality have reduced the decline in conservatism after IFRS adoption in Europe in 2005. Irrespective of the effect of IFRS on conservatism, country specific factors still shape the accounting practices after mandatory IFRS adoption as explained in chapter 3. In such case, the adoption of IFRS alone is not enough to obtain consistent accounting practices across different countries.

Indeed, our findings reveal that strong investor protection and strong enforcement increase the degree of conservatism in financial reporting. Under the contracting perspective, the function of accounting is to provide information useful in evaluating contracting settings and economizing the transactions costs. From this perspective, our results indicate higher quality of earnings in countries with strong investor protection and legal enforcement. There are several explanations for why strong investor protection and strong enforcement are associated with a greater degree of conservatism.

The principle-agent relationship provides a possible explanation for the demand for conservative accounting and for the effect of legal factors represented by investor protection and enforcement on it. Agency theory assumes that all individuals are driven by their self-interests to maximize their own utilities; as such, the outsiders will anticipate that the corporate insiders will expropriate wealth from the firm at their expense. This would necessitate setting up mechanisms, internal and external, to protect investors against expropriation by insiders.

Apart from internal mechanisms such as compensation plans and director monitoring, external mechanisms, such as monitoring managers by shareholders and debt holders are important to prevent the opportunistic behaviour of managers. Given the conflicts in interests and the incentives, there would be a demand for conservatism in accounting, which is likely to be greater in countries characterized by strong investor protection and strong enforcement. Ball et al. (2000) asserts that conservative accounting, which is an important feature of corporate governance in common law counties, facilitates monitoring corporate insiders.

Pushing further, the internal mechanisms such as managerial incentive plans would also necessitate having strong external mechanisms which serve as control over the managers.

Managers have the incentives to manage earnings upwards to increase their compensation, which is negatively influenced by conservatism. Bushman and Piotroski (2006) argue that the limited liability of firms' managers may generate a demand for verifiable measures that defer compensation until verifiable evidence of managers' actions becomes available. For this reason, shareholders may demand conservative accounting to avoid managers' overpayments that reduce the share value. Debt holders also prefer accounting practices that lead to less reported earnings and thus less distribution to assure that their debt can be repaid.

Kothari et al. (2010) argue that the demand for verifiable information by both shareholders and debt holders contributes to the increase in conditional conservatism. What causes managers to act in contrast to their incentives should exceed what they would achieve from aggressive accounting. Strong investor protection and strong enforcement imposes a limit on managers' actions in a way that supports contracting, which requires credible accounting information as in debts contracts and compensation contracts. On the other hand, managers have greater room to manage earnings upwards in countries where the investor protection and the enforcement are weak; thus, the contracts are less enforceable, and the accounting information is less verifiable.

Another reason for conservative accounting is shareholder litigation (Watts, 2003). Shareholder litigation embedded in a well-functioning and efficient judicial/legal system can protect the rights of outsiders and prevent the corporate directors and managements from expropriating the outsiders. Ball et al. (2000) show a greater degree of conservatism in common law countries than in code law counties, where the litigation is not as in the common law countries. When the litigation risk is high, managers are more likely to be conservative in reporting earnings (Ball et al., 2000). With stronger investor protection and enforcement, the litigation costs may increase, and, as a consequence, more conservative accounting is likely to be the case.

In general, conservatism may be a desirable attribute of financial reporting since the understatement of assets and earnings is of less concern compared with the overstatement. Indeed, on 15 February 2015, a group of shareholder representatives, asset managers, and institutional investors published a letter asking the IASB to restore prudence as a guiding principle in the financial statements (Quinn et al., 2015). They believe that the shareholders and lenders have greater confidence in prudent financial statements. Strong investor protection and strong enforcement contribute to lessening the risks the investors bear, which are much greater in less conservative earnings than in conservative earnings.

Notwithstanding, the IASB's president Hans Hoogervorst (2012) argues that prudence may create scope for opportunism in financial statements in terms of earnings management. In fact, conservatism in the form of timely loss recognition may help managers manage earnings downwards (income decreasing). However, we may state that conservative accounting mitigate earnings management if the managers use it on purpose. In other words, it depends on the intention of the managers, which is difficult to prove.

In our first empirical chapter, the results revealed that strong investor protection and strong enforcement are associated with less accruals earnings management and greater real earnings management. Taken together, strong investor protection and strong enforcement lead to less accruals earnings management, greater real earnings management and more conservative accounting. This is consistent with García Lara et al. (2012), who showed that the increased conditional conservatism was associated with a decline in accruals earnings management, and with an increase in real earnings management. While they used a US sample, we prove that this condition exists

consistently across countries in that strong investor protection and strong enforcement lead to less accruals earnings management, greater real earnings management and more conservative earnings.

Given the discussion above, it is not surprising that strong investor protection and strong enforcement of accounting standards increase the conditional conservatism captured by the timeliness of loss recognition in the financial statements. Our results on the effect of investor protection and enforcement on conservatism are consistent with Bushman and Piotroski (2006), who tested the effect of institutions on the extent of conservatism across countries. Bushman and Piotroski (2006) found higher conservatism in countries with higher quality judicial systems, strong investor protection, and stronger enforcement of securities laws.

Nevertheless, the effect of investor protection and enforcement on accounting information from valuation perspective has implications different from those under contracting perspective.

At first glance, our results of the effect of investor protection and enforcement on value relevance do not seem logical in that we found no significant effect of investor protection and enforcement on the value relevance of earnings. Strong investor protection and strong enforcement do not increase the value relevance of earnings; rather, they increase the value relevance of book values. Some (e.g. Holthausen and Watts, 2001) argue that the value relevance research is of value in equity valuation perspective but this does not apply to contracting perspective and therefore it is of less value in measuring earnings quality. In addition, to explain these results, it is important to link them with the results of conservatism. That is, the relevance of earnings as a performance indicator is influenced by the degree of conservatism in the financial statements. For example, the Chairman of the IASB Hans Hoogervorst (2012) maintains that '[a] systemic bias towards conservatism undermines the value of earnings as a performance indicator'.

The literature illustrates that conservative accounting practices influence the value relevance of earnings. Early works by Hayn (1995) and Basu (1997) suggest that the decline in value relevance of earnings across time can be explained by the increase in nonrecurring items and negative earnings, in other words higher conservatism. In this case, book values become more important than earnings in explaining stock prices (Barth et al., 1996; Burgstahler and Dichev, 1997). Our results are consistent with the aforementioned notion in that strong investor protection and strong enforcement are associated with higher conditional conservatism and, at the same time, book values explain the stock prices more than earnings do.

In the same vein, Collins et al. (1997) found no decrease in the combined value relevance of book value and earnings; instead, there was a slight increase over time. The value relevance of book value increased while the value relevance of earnings decreased over time. They attributed the decrease in value relevance of earnings to the increase in the frequency of negative earnings, significant incidence of one-time items, and changes in intangible intensity. These findings indirectly support the argument that conservative accounting reduces the value relevance of earnings across time.

Bandyopadhyay et al. (2010) suggest a positive relationship between the reliability of earnings and the usefulness of earnings, over book values, when explaining stock prices. Earnings are deemed more reliable if they have a higher predictability of future earnings. Earnings become less reliable with higher conditional conservatism. Taken together, higher conservatism leads to less reliable earnings, making the book values more useful in explaining the stock prices than the current earnings. As such, balance sheets numbers are relatively higher in value relevance compared with income statements amounts. This is consistent with Barth (2006), who contends that accelerating the recognition of future expenses and losses reduces the ability of earnings to predict themselves while it improves the ability of earnings to predict future cash flows.

Heflin et al. (2014) concluded that conditional conservatism reduced the informativeness and persistence of earnings, and made the earnings less smooth. Consequently, investors preferred Street earnings that are less conservative than GAAP earnings. Investors may have other sources of information than financial reporting; therefore, the potential bias resulting from conservatism may be corrected. As mentioned before, the shareholders may demand conservatism to impose constraints on managers' compensations. If earnings become less relevant in explaining the stock price because of conservative accounting, the shareholders may use other sources of information in addition to book value. Indeed, Ewert and Wagenhofer (2013) argue that investors adjust the face value of reported earnings for interpretation purposes.

Another reason for the increase in the value relevance of book values at the expense of earnings after IFRS adoption is the increase in conservative accounting because of the fair value requirements in the standards. For example, Givoly and Hayn (2000) note more conservative accounting in the United States because of the FASB's fair value rules that require earlier recognition of expenses and loses or deferral recognition of revenues. As such, the recognition of losses resulting from fair value accounting may increase in response to strong investor protection and strong enforcement.

Furthermore, the association between market price and reported earnings may not be an indication of the absence of aggressive earnings management or better quality. For instance, Altamuro et al. (2005) found that accelerating revenue recognition is associated with higher market response, even when earnings management incentives are high. This means that either aggressive accounting is not an indication of lower quality of earnings, or the high market response is not evidence of better quality.

It is important to point out that we did not examine the effect of conservatism on value relevance; instead, we tested the effect of local factors on conservatism and value relevance of accounting information. We indirectly infer a potential effect of conservatism on the value relevance of accounting information based on the effect of local factors on both conservatism and value relevance of earnings and book values.

In terms of the strength of capital market, the results did not show a significant relationship with conservatism. However, stronger capital market increases the value relevance of earnings while there is no effect on book value. To put it differently, a strong capital market, which has no effect on conservatism, increases the value relevance of earnings. This is consistent with our other results in that when there was greater conservatism, there was an increase in the value relevance of book value at the expense of earnings.

Despite the fact that the 23 countries in our sample mandate IFRS adoption, country specific factors still shape the accounting practices. In other words, there is a variation in the extent of conservatism and value relevance of accounting information due to the differences in the strength of investor protection, enforcement and the depth of capital market.

Since accounting information has a dual purpose, both a source for equity evaluation (valuation perspective) and for contracting (contracting perspective) (e.g. Watts and Zimmerman, 1986), what is desirable from a contracting perspective may not be desirable from a valuation perspective. Indeed, higher conservatism is more pronounced in countries with strong investor protection and strong enforcement of accounting standards, which is preferred from a contracting perspective. At the same time, strong investor protection and strong enforcement do not increase the value relevance of earnings; instead, the book values are more important. This may indirectly indicate that conservative accounting resulting from local factors has a negative effect on the relevance of earnings. One can then conclude that, from a contracting perspective,

the quality of earnings is better in countries having high investor protection and strong enforcement, while from a valuation perspective, earnings are not of better quality.

7.5. Additional tests

In this section, we provide additional tests, some checks using different measures of investor protection and control variables in the conservatism model.

Firstly, we ran the basic regression of conservatism without the country specific factors to obtain a general picture of conservatism. Appendix 2 Table I shows the pooled regression of conservatism clustered by firm and year. From the table ($\beta_2 = -.337$) < 0 reflects the role of accruals in lessening the noise in operating cash flows whereas $\beta_3 = .327 > 0$ reflects more timely loss recognition. In general, financial reporting is conservative but it marginally increases with strong investor protection and strong enforcement as reported before in Table 7-3 and Table 7-4.

Secondly, given that there is no straightforward or uncontroversial measure of investor protection, we tried another measure of investor protection in our test. We used anti-self-dealing index as an alternative measure of investor protection to test its effect on both conservatism and value relevance as shown in Appendix 2 Table II and Table III. With regard to conservatism, we found similar results to that when we used our metric of investor protection. As shown in Appendix 2 Table II, ($\beta_7 = 2.55$) is positive and significant, which indicates that strong anti-self-dealing increases the conditional conservatism in accounting.

For value relevance, we found a decrease in the value relevance of earnings with the increase of self-dealing, which is consistent with our results, as it is apparent in Appendix 2 Table III. Taken together, when there is higher investor protection (measured by self-dealing index), there is a higher extent of conservatism, and the value relevance of earnings decreases.

Thirdly, following Peek et al. (2010), we included three control variables to control for leverage, size and growth. The findings show that strong investor protection and strong enforcement increases the extent of conservatism while the strength of capital market has no effect on conservatism, as shown in Appendix 2 Table IV, Appendix 2 Table V, and Appendix 2 Table VI. Therefore, we conclude that firm-specific factors do not drive the results of the effect of country-specific factors on conservatism.

Finally, we ran the basic regression of value relevance without the country level variable, as shown in Appendix 2 Table VII, to find out the value relevance of book values and earnings in general before using the interaction. Appendix 2 Table VII reveals that both book values and earnings are relevant and reflected in the stock prices. We thus conclude that earnings and book values in general are relevant but relatively different from one country to another based on the country specific factors.

7.6. Conclusion

This chapter of the thesis has presented the results and discussions of the effect of investor protection, enforcement of accounting standards and the strength of capital market on both conditional conservatism and value relevance of book values and earnings under IFRS across 23 countries from 2007 to 2010.

The findings reveal that strong investor protection and strong enforcement of accounting standards increase timely loss recognition, which is a type of conditional conservatism. Simultaneously, strong investor protection and strong enforcement increase the value relevance of book values rather than earnings. These results are consistent with the literature on the effect of conditional conservatism on value relevance, the case in which book values become more important than earnings in explaining stock prices. The increases in the value relevance of book

values can be caused by the higher conservatism resulting from strong investor protection and strong enforcement.

From a contracting perspective, strong investor protection and strong enforcement increase the conditional conservatism, which means better earnings quality. From a valuation perspective, strong investor protection and strong enforcement increase the value relevance of book values because of the increased conservatism in accounting. In general, conservative accounting is safer than aggressive accounting in spite of its effect on the informativeness of earnings. Investors may use other sources of information. Work by Heflin et al. (2014) revealed that investors preferred Street earnings that were less conservative than GAAP earnings as the conditional conservatism reduced the informativeness and persistence of earnings, and made the earnings less smooth.

As regards the effect of capital market on conservatism and value relevance, we found no significant effect on conservatism. On the other hand, the value relevance of earnings is higher in countries with strong capital markets.

Our results are important in that they reveal the effect of country-specific factors on earnings quality under IFRS from two different perspectives, contracting and equity valuation, which is the first study to do so. The results confirm the fact that earnings quality means different things to different users, and different country-specific factors drive different earnings quality dimensions under IFRS. Despite the fact that the 23 countries in the sample made IFRS compulsory for listed companies, there is still a variation in accounting quality across countries.

Chapter 8 Conclusions

8.1. Introduction

The main goal of the current thesis was to determine how earnings quality varies across countries under IFRS driven by the notion that local environments may continue to influence accounting practices under IFRS; accounting quality may vary across nations using IFRS. Exploring accounting quality under IFRS is of interest because the IASB neglects the features of different countries by prescribing accounting standards alleged to fit all.

Since the inception of the IASC, the focus of the IASC and then the IASB has been on developing a high quality single set of accounting standards accepted globally. The use of a single set of accounting standards in producing financial reports across the world helps investors compare opportunities and risks and reduces the cost of financial reporting in that there is no need to adjust the financial statements. On the face of it, this makes sense as the variation in accounting standards used in lodging the financial statements across countries leads to incomparable financial statements and thus incurring costs for adjustments to the statements.

The literature, however, suggests that the accounting standards are not the only determinant of the quality of financial statements but other local factors also play a role (Ball et al., 2000; Ball et al., 2003; Leuz et al, 2003; Burgstahler et al., 2006; Bushman and Piotroski, 2006; Soderstrom and Sun, 2007; Daske et al., 2008). For example, the enforcement of the standards is important to assure the compliance of the companies with the standards. What are the benefits of high quality accounting standards unless they are properly enforced? This is of key importance owing to the fact that enforcement remains in the hands of local authorities and the

IASB has no power to enforce IFRS. Without full compliance with the spirit of the standards, the adoption becomes in name only and is even highly misleading.

The works by Houqe et al. (2012), Isidro and Raonic (2012) and Ahmed et al. (2013) are the most recent studies examining accounting quality after mandatory IFRS adoption. While Houqe et al. (2012) examined the effect of IFRS adoption on accruals earnings management conditional on investor protection, Ahmed et al. (2013) tested the effect of IFRS adoption on earnings smoothing, earnings benchmarks, accruals aggressiveness, and timely loss recognition, controlling for their enforcement. Both Houqe et al. (2012) and Ahmed et al. (2013) covered the first years of IFRS adoption up to 2007 focusing of the effect of IFRS themselves on quality. Isidro and Raonic (2012) investigated the effect of institutional factors on value relevance of accounting information and manipulation across 26 countries that mandated IFRS adoption, covering only two years, namely 2006 and 2007. It can also be noticed that recent international studies on earnings quality lack theory on the factors that shape accounting practices after IFRS adoption. In this study, the choice of the factors was based on a theoretical framework derived from previous studies on factors shaping accounting, before and after IFRS adoption (See Chapter 3). Further, I employed agency theory to address the importance of strong investor protection, more efficient enforcement and large capital markets to yield high quality financial reporting.

In the literature, accrual-based earnings management has been widely used to capture earnings manipulation. However, the literature shows that managers are more likely to take real actions in managing earnings to escape detection as real earnings management is difficult to detect (e.g. Graham et al., 2005; Cohen et al., 2008). On an international basis, exploring real earnings management in addition to accruals earnings management provides a better picture of the role of institutions in determining accounting practices. Our first empirical chapter fills this gap in

the literature by examining both accruals and real earnings management across nations contingent on institutional factors. In addition, conservative accounting may provide evidence of high quality earnings because it requires a downward bias in measuring earnings. On the other hand, conservative accounting may have a negative impact on equity valuation. For this reason, we explored both conservatism from a contracting perspective and value relevance from an equity valuation perspective to address how earnings quality may vary based on the decision context. The work by Barth et al. (2008) is the only study that used earnings smoothing, conservatism captured by timely loss recognition, and value relevance as proxies for accounting quality. In it, they investigated the effect of voluntary IFRS adoption on accounting quality.

Overall, the thesis contributes to the literature of earnings quality, mandatory IFRS adoption and the effect of country specific factors by exploring a variety of metrics that capture earnings quality from different decision contexts. In addition, it covers a longer period of mandatory IFRS adoption from 2007 to 2010 dropping the first years of adoption (2005 and 2006), in contrast to prior studies which covered the first years of adoption. This is important because companies in the first years of IFRS adoption may continue to implement the traditional accounting practices as mentioned by Nobes (2011b).

The remaining part of this chapter proceeds as follows. Section 2 provides a summary of Chapters 1-5. Section 3 presents a summary of the findings of the two empirical chapters. This is followed by section 4, which presents the implications. The final section discusses the limitations of this thesis along with some suggestions for future research.

8.2. Summary of the Chapters 1-5

The introductory chapter set the scene for this thesis. It highlighted the background and motivation behind this research, the research questions, and the significance of the thesis. The aim was to explore how accounting quality varies under IFRS contingent on investor protection,

enforcement of accounting standards and capital market. In particular, it focused on four dimensions of earnings quality, namely accruals earnings management, real earnings management, conservatism and value relevance.

Chapter 2 presented the context of the study. It described the IFRS foundation and the IASB, and discussed the countries involved in the study. More specifically, it showed the endorsement process of IFRS adoption across these countries, the date of adoption and the firms that are required to use IFRS. By doing so, we overcame the shortcomings of prior studies in terms of identifying firms using IFRS. In Section 5.6, we provided a detailed explanation of the shortcomings in prior studies with regard to specifying firms using IFRS.

Chapter 3 provided a general model of the factors determining accounting practices after IFRS adoption, and discussed agency theory to show how strong investor protection, more efficient enforcement and large capital markets influence accounting quality under IFRS. Agency theory indicates that the firm is a ‘’nexus of contracts’’ between different parties who act in their self-interests and, therefore, there are conflicts between those parties. For instance, there are conflicts between: managers and shareholders, controlling shareholders and minority shareholders and debt holders, and shareholders and debtholders. Such conflicts require some external mechanisms to align the interests of different parties.

After IFRS adoption, strong investor protection is necessary to ensure that managers are not hiding information from external investors, and controlling shareholders are not expropriating minority shareholders and debtholders. Similarly, efficient enforcement is important to make firms comply with IFRS as the IASB lacks enforcement power. Financial reporting contributes to mitigating the moral hazard and adverse selection problems as it reduces the information asymmetry between managers and external investors. This is of particular importance in large capital markets where there is greater demand for financial reporting compared with small

capital markets where investors, banks, governments or families have their own access to information.

Chapter 4 presented the literature review. More specifically, it provided definitions of accounting quality, earnings management, conservatism, value relevance, investor protection, enforcement and the strength of capital markets. It also revealed that prior studies focused on accruals earnings management while managers might manage earnings through real activities; this gap in the literature was filled by the first empirical chapter. In addition, Chapter 4 showed that earnings quality for contracting purposes may differ from that for investment decisions; therefore, the second empirical chapter investigated both conservatism and value relevance of accounting. Eight hypotheses were formulated based on the discussions in the theoretical framework chapter and the literature review chapter.

Chapter 5 discussed the research methodology, including the models used to measure earnings quality, measuring the variables and the sample. We employed the positivist paradigm to achieve the aim of this study and tested hypotheses using quantitative data in an independent, value free and unbiased way.

We used the modified Dechow and Dichev (2002) model to capture accruals earnings management and followed Roychowdhury (2006) and Cohen and Zarowin (2010) to measure the abnormal level of cash flow from operations, discretionary production costs and discretionary expenses. We also employed a model developed by Ball and Shivakumar (2005) to measure conservatism, and Ohlson's model to investigate the effect of country-specific factors on the value relevance of book value and earnings.

8.3. Summary of the findings

In chapter 6 and 7, the thesis examined four research questions. In the following sections, the main findings of the two empirical chapters are discussed.

8.3.1. Earnings management

Chapter six analysed whether accruals and real earnings management differ under IFRS due to the differences in institutional factors across countries. The first question in this empirical chapter sought to examine the effect of investor protection, enforcement of accounting standards and capital market on accruals-based earnings management. As mentioned before, mangers may take real actions in managing earnings to escape detection (e.g. Graham et al., 2005; Cohen et al., 2008); therefore, the second question sought to test how real earnings management differs across nations contingent on local factors.

On the question of accruals earnings management, the study found that firms in countries having strong investor protection, strong enforcement, and large capital market are less likely to manage earnings upward by accruals. In such countries, earnings are more likely to be managed upward via real activities, which is the finding of question two of the first empirical chapter. These findings support Hypothesis 1 and Hypothesis 2.

With tighter institutions, firms prefer to manage earnings upward by real activities because such institutions cannot prevent managers from postponing a project or accelerating sales but they put more control on managers when exercising their professional judgment. With strong institutions, managers try to avoid potential litigations associated with increasing earnings via accruals. However, with real earnings management activities, there is no such fear, as these activities are in line with the regulations despite their potential negative effects on long term performance.

Further, the findings provide some evidence that firms are engaged in both accrual and real earnings management. Zang (2012) concludes that companies in the post SOX period have taken accruals earnings management to a minimal degree and real earnings management to a large degree as they engage in both streams of earnings management. The net effect of accruals and real earnings management is beyond the scope of this study.

Interestingly, in large capital markets, firms manage earnings upward via real earnings management activities despite the possible negative effect of real earnings management on the subsequent performance. Graham et al. (2005) argue that managers may prefer to hit the target even if this may influence future performance as missing the target would be costly. Despite the negative influence on future performance, managers may undertake real actions to beat the target when they become under the pressure of capital markets and overreactions.

The work by Doukakis (2014) found no significant effect of mandatory adoption on real or accrual based earnings management while our results revealed that both accruals and real earnings management are influenced by institutional factors. Taken together, the accounting practices under IFRS continue to be nationally determined by local institutions governing the preparation of financial reporting.

Overall, these results indicate that earnings management under IFRS varies across countries due to the differences in local environments. This raises a question about the IASB's claim that using a single set of accounting standards across countries leads to consistent accounting practices.

8.3.2. Conservatism and value relevance

The specific objective of chapter seven was to examine the effect of country specific factors on earnings quality from two perspectives, contracting and equity evaluation. From contracting

perspective, conservatism was employed as a metric for earnings quality, whereas value relevance was used from an equity valuation perspective.

The third question in this thesis was whether conditional conservatism varied across countries enforcing IFRS due to the variation in the strength of investor protection, enforcement of accounting standards and capital market governing the preparation of financial reporting. Along with conservatism, the fourth research question was whether there was any effect of investor protection, accounting standards enforcement, and strength of capital market on the value relevance of book values and earnings across countries using IFRS.

In essence, the criticisms of conservatism as a desirable attribute of financial reporting are partially tied to its effects on equity valuation. For example, Hans Hoogervorst (2012) asserted that conservative accounting might undermine the value of earnings as a performance indicator and create some opportunities for earnings manipulation.

The results of chapter seven showed that strong investor protection and enforcement of accounting standards increases the conditional conservatism captured by timely loss recognition across countries using IFRS. With higher litigation associated with stricter regulations, managers prefer to avoid lawsuits and thus be conservative in reporting earnings. Being conservative would benefit the parties contracting with the firm, both shareholders and debt holders. These findings are in line with Bushman and Piotroski (2006), who found higher conservatism in countries with higher quality of judicial systems, strong investor protection, and stronger enforcement of securities laws. These findings support Hypothesis 3 and Hypothesis 4.

The results also showed that strong investor protection and strong enforcement increase the value relevance of book values, as predicted in Hypothesis 6 and Hypothesis 7. These results are consistent with the results in terms of the effect of investor protection and enforcement on

conservatism. Strong investor protection and strong enforcement increase conservatism, which in turn leads to an increase in the value relevance of book values. Prior studies provide evidence that with conservative accounting, book value becomes more important than earnings for equity evaluation (e.g. Barth et al., 1996; Burgstahler and Dichev, 1997; Collins et al., 1999). Heflin et al. (2014) showed that conditional conservatism reduced the persistence and informativeness of earnings, and made the earnings less smooth.

With regards to the effect of capital markets on conservatism, the results revealed no significant effect. Earnings in small capital markets, which tend to be weak, are more likely to be conservative (Nobes, 1998); however, in large capital markets there would be some conservative accounting due to the effect of legal systems associated with capital markets. At the same time, the results revealed that strong capital markets enhance the value relevance of earnings. The findings of the effect of capital market on conservatism and value relevance confirm Hypothesis 5 and Hypothesis 8. Taken together, the strength of capital market does not influence the extent of conservatism but has an impact on the value relevance of earnings. The results support the argument that when there is a greater extent of conservatism, shareholders look at book values for equity valuation.

Together, these results provide important insights into the effect of country specific factors on accounting quality under IFRS from different perspectives. In spite of using the same accounting standards across the countries in the sample, country specific factors continue to influence earnings quality. Further, the effect of country specific factors on accounting quality has different implications based on the decision context. In combination with IFRS adoption, different institutions drive different ‘quality’ earnings.

8.4. Implications

These findings have significant implications for accounting standards setters, policy makers, regulators, audit committees, non-executive directors, investors, lenders, and researchers. First, accounting standards setters, policy makers, and regulators should focus on other local factors determining the accounting practices along with the accounting standards. Despite the fact that firms in our sample used IFRS in the preparation of their financial reporting, there was variation in accounting quality across countries due to the differences in investor protection, enforcement of accounting standards and strength of capital markets. The mere adoption of IFRS, as the IASB calls for, without improving the other mechanisms necessary for enforcing the compliance with the standards, is not enough to obtain high quality accounting across countries. Further, the findings contribute to the ongoing debate on the concept of prudence or conservatism in the conceptual framework. Our data did not cover the period after 2010 when the IASB dropped prudence from its conceptual framework to be replaced by neutrality; however, we may infer that conservatism is more related to the legal system of a country. As such, conservative accounting may continue to exist in spite of the opposition of the IASB.

Second, regulators should consider that with higher threat of litigation, there would be higher earnings management via real activities. The high litigation associated with strong institutions curtails the ability of managers to increase earnings by means of accruals; instead, they tend to take real actions. Earnings management by means of real activities themselves is not fraud; however, it has a negative impact on the future performance. Audit committees and non-executive directors should evaluate such effects and prevent real actions if they lead to a decrease in firm value, even though these actions are in line with regulations. This can be done through asking questions about managers' economic actions, and by paying the managers less compensation when their actions lead to negative effects on future performance. Investors and

lenders should be aware of the potential negative effects of real earnings management on future performance as real earnings management is difficult to detect in comparison with accruals earnings management.

Third, our findings show that earnings quality is contingent on the decision context and different institutions drive different earnings quality. In addition to accruals and real earnings management, the results show that stronger investor protection and enforcement increase the extent of conditional conservatism. At the same time, such strong factors, which increase conservatism, increase the value relevance of book values rather than the earnings. With increasing conservatism, the informativness of earnings decreases while book values substitute earnings as a performance indicator. Regulators should consider the influence of regulations on different stakeholders.

Finally, researchers should be cautious about drawing conclusions on earnings quality given its different dimensions and different meanings to stakeholders, especially when investigating the effect of country-specific factors, in combination with IFRS, on accounting quality. Exploring earnings quality from one specific perspective may not provide a full picture of the quality, as the results showed in terms of accruals and real earnings management, and conservatism and value relevance. Concluding that less accruals earnings management is an indication of better quality is not enough without looking at real earnings management, which may have negative economic effects. Similarly, conservative accounting may provide managers with room to manage earnings if they want to decrease the reported earnings, and it may have negative effects on equity valuation.

8.5. Limitations and opportunities for future research

We acknowledge several potential limitations inherent in this study. Firstly, countries included in the sample had followed different approaches to apply IFRS; thus, the differences in IFRS

versions might be an influencing factor on the differences in earnings quality. The variation in accounting quality under IFRS could be partial because of the different versions of IFRS in addition to the differences in country-specific factors. Secondly, one can question the validity of the investor protection measure since there is neither a straightforward nor uncontroversial measure of investor protection. Our results would be different when using other metrics of investor protection. Thirdly, some countries in the sample included a small number of firms; therefore, the results would be driven by countries with a large number of firms. Finally, the models used to capture earnings quality may be criticised but there is no one perfect model to capture earnings quality. That is, accounting quality may be broader than what earnings quality metrics measure.

Notwithstanding these limitations, our findings are important in that they highlight the effect of country-specific factors on different metrics of earnings quality across 23 countries using IFRS. Using different metrics is important to overcome the shortcomings of earnings quality models.

In further research, it might be possible to investigate whether the benefits of less accruals earnings management, resulting from strong institutions, exceed the costly higher real earnings management across countries. Further, more research on the benefits and drawbacks of conservatism needs to be undertaken. It would be interesting to compare conservatism under IFRS across countries before and after 2010 when the IASB dropped prudence from the conceptual framework to address whether local factors still influence accounting practices.

An interesting question is to investigate earnings quality under IFRS during the financial crisis, 2007 to 2010, and after the crisis, probably 2011 to 2015. This is important to address the effect of economic consequences on earnings quality.

Finally, in future investigations it would be interesting to explore whether there was a change in investor protection and enforcement after the introduction the IFRS across countries, and whether they had any effect on accounting quality.

References

AAA. (1977). American accounting association 1975-1976 committee on international accounting operations and education. *The Accounting Review*, Supplement to Volume *52*: 65-132.

AASB, (2004). *AASB adoption of IASB standards by 2005, http://www.aasb.gov.au/admin/file/content102/c3/Background_to_AASB_adoption_of_IASB_standards_by_2005.pdf. (Accessed 25 Jul 2014)*

AASB, 2009. *IFRS adoption in Australia. http://www.aasb.gov.au/admin/file/content102/c3/IFRS_adoption_in_Australia_Sept_2009.pdf. (Accessed 25 Jul 2014)*

Aboody, D., Barth, M. E., & Kasznik, R. (1999). Revaluations of fixed assets and future firm performance: Evidence from the UK. *Journal of Accounting and Economics, 26*(1), 149-178.

Adhikari, A., & Tondkar, R. H. (1992). Environmental factors influencing accounting disclosure requirements of global stock exchanges. *Journal of International Financial Management & Accounting*, 4(2), 75-105.

Agostino, M., Drago, D., & Silipo, D. B. (2011). The value relevance of IFRS in the European banking industry. *Review of quantitative finance and accounting*, 36(3), 437-457.

Aharony, J., Barniv, R., & Falk, H. (2010). The impact of mandatory IFRS adoption on equity valuation of accounting numbers for security investors in the EU. *European Accounting Review, 19*(3), 535-578.

Ahmed, A. S., Neel, M. & Wang, D. (2013). Does mandatory adoption of IFRS improve accounting quality? Preliminary evidence. *Contemporary Accounting Research, 30*(4), 1344-1372.

Al-Akra, M., Ali, M. J., & Marashdeh, O. (2009). Development of accounting regulation in Jordan. *The International Journal of Accounting*, *44*(2), 163-186.

Alali, F. A., & Foote, P. S. (2012). The value relevance of international financial reporting standards: Empirical evidence in an emerging market. *The International Journal of Accounting, 47*(1), 85-108.

Albrecht, W. D., & Richardson, F. M. (1990). Income smoothing by economy sector. *Journal of Business Finance & Accounting*, 17(5), 713-730.

Alford, A., Jones, J., Leftwich, R., & Zmijewski, M. (1993). The relative informativeness of accounting disclosures in different countries. *Journal of Accounting Research, 31*: 183-223.

Ali, A., & Hwang, L. S. (2000). Country-specific factors related to financial reporting and the value relevance of accounting data. *Journal of Accounting Research, 38*(1): 1-21.

Altamuro, J., Beatty, A. L., & Weber, J. (2005). The effects of accelerated revenue recognition on earnings management and earnings informativeness: Evidence from SEC Staff Accounting Bulletin No. 101. *The Accounting Review*, *80*(2), 373-401.

Amir, E. (1993). The market valuation of accounting information: The case of postretirement benefits other than pensions. *Accounting Review*, *68*(4): 703-724.

Anandarajan, A., & Hasan, I. (2010). Value relevance of earnings: evidence from Middle Eastern and North African countries. *Advances in Accounting*, *26*(2), 270-279.

Anandarajan, A., Francis, B., Hasan, I., & John, K. (2011). Value relevance of banks: global evidence. *Review of Quantitative Finance and Accounting*, *36*(1), 33-55.

André, P., Filip, A., & Paugam, L. (2015). The Effect of mandatory IFRS adoption on conditional conservatism in Europe. *Journal of Business Finance & Accounting*, *42*(3-4), 482-514.

Armitstead, L. (2014). *IFRS could be stripped of accountancy watchdog role*. The Telegraph. Available at: http://www.telegraph.co.uk/journalists/louise-armitstead/10700745/IFRS-could-be-stripped-of-accountancy-watchdog-role.html. (Accessed 20 August 2014)

Armstrong, C. S., Barth, M. E., Jagolinzer, A. D., & Riedl, E. J. (2010). Market reaction to the adoption of IFRS in Europe. *The accounting review*, *85*(1), 31-61.

Arpan, J. S., & Radebaugh, L. H. (1985). *International accounting and multinational enterprises*: Wiley.

Ayers, B. C., Jiang, J., & Yeung, P. E. (2006). Discretionary accruals and earnings management: An analysis of pseudo earnings targets. *The Accounting Review*, 81(3), 617-652.

Babalyan, L. (2001). Association between accounting earnings and stock returns as a measure of value relevance of accounting standards: empirical evidence from the Swiss market. In *EFA 2002 Berlin Meetings Discussion Paper*.

Balachandran, S., & Mohanram, P. (2011). Is the decline in the value relevance of accounting driven by increased conservatism?. *Review of Accounting Studies*, *16*(2), 272-301.

Ball, R., & Brown, P. (1968). An empirical evaluation of accounting income numbers. *Journal of accounting research*, 159-178.

Ball, R., Kothari, S., & Robin, A. (2000). The effect of international institutional factors on properties of accounting earnings. *Journal of Accounting and Economics*, *29*(1), 1–51.

Ball, R., Robin, A., & Wu. J.S. (2003). Incentives versus standards: properties of accounting income in four East Asian countries. *Journal of Accounting and Economics 36*: 235-270.

Ball, R., & Shivakumar, L. (2005). Earnings quality in UK private firms: comparative loss recognition timeliness. *Journal of Accounting and Economics*, *39*: 83–128.

Ball, R. (2006). International Financial Reporting Standards (IFRS): pros and cons for investors. *Accounting and business research*, *36*(sup1), 5-27.

Ball, R., Robin, A., & Sadka, G. (2008). Is financial reporting shaped by equity markets or by debt markets? An international study of timeliness and conservatism. *Review of Accounting Studies*, 13(2-3), 168-205.

Bandyopadhyay, S. P., Chen, C., Huang, A. G., & Jha, R. (2010). Accounting conservatism and the temporal trends in current earnings' ability to predict future cash flows versus future earnings: evidence on the trade‐off between relevance and reliability. *Contemporary Accounting Research*, *27*(2), 413-460.

Barth, M.E. (1991). Relative measurement errors among alternative pension asset and liability measures. *The Accounting Review, 66*(3): 433–463.

Barth, M. E. (1994). Fair value accounting: Evidence from investment securities and the market valuation of banks. *The Accounting Review, 69*(1): 1-25.

Barth, M. E., Beaver, W. H., & Landsman, W. R. (1996). Value-relevance of banks' fair value disclosures under SFAS No. 107. *The Accounting Review*, *71*(4), 513-537.

Barth, M. E., Beaver, W. H., & Landsman, W. R. (1998). Relative valuation roles of equity book value and net income as a function of financial health. *Journal of Accounting and Economics, 25*(1), 1-34.

Barth, M. E., & Clinch, G. (1998). Revalued financial, tangible, and intangible assets: Associations with share prices and non-market-based value estimates. *Journal of Accounting Research, 36* supplement: 199-233.

Barth, M. E., Elliott, J. A., & Finn, M. W. (1999). Market rewards associated with patterns of increasing earnings. *Journal of Accounting Research*, *37*(2): 387-413.

Barth, M. E., Beaver, W. H., & Landsman, W. R. (2001). The relevance of the value relevance literature for financial accounting standard setting: another view. *Journal of accounting and economics, 31*(1), 77-104.

Barth, M. E. (2006). Including estimates of the future in today's financial statements. *Accounting Horizons, 20*(3), 271-285.

Barth, M.E., Landsman, W.R., & Lang, M.H. (2008). International accounting standards and accounting quality. *Journal of Accounting Research, 46*: 467–498

Barth, M. E., Landsman, W. R., Raval, V., & Wang, S. (2014). Conservatism and the information content of earnings. *Rock Center for Corporate Governance at Stanford University Working Paper*, (162). Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2348905.

Bartol, K., Tein, M., Matthews, G., & Martin, D. L. (2004). *Management: a pacific rim focus*: McGraw-Hill.

Barton, J., & Simko, P. J. (2002). The balance sheet as an earnings management constraint. *The Accounting Review*, *77*(s-1), 1-27.

Bartov, E. (1993). The timing of asset sales and earnings manipulation. *The Accounting Review*, *68*(4): 840-855.

Basu, S. (1997). The conservatism principle and the asymmetric timeliness of earnings 1. *Journal of accounting and economics*, *24*(1), 3-37.

Baskerville, R. F. (2003). Hofstede never studied culture. *Accounting, organizations and society*, 28(1), 1-14.

Bryman, A. and Bell, E. (2003). *Business research methods*. Oxford: Oxford University Press

Belkaoui, A. (1983). Economic, political, and civil indicators and reporting and disclosure adequacy: Empirical investigation. *Journal of Accounting and Public Policy*, *2*(3), 207-219.

Belkaoui, A., & Maksy, M. (1985). Welfare of the common man and accounting disclosure adequacy: An empirical investigation. *The International Journal of Accounting Education and Research*, *20*(2): 81-94.

Berger, A. (2010). The development and status of enforcement in the European Union. *Accounting in Europe*7 (1): 15–35.

Bergstresser, D. & Philippon, T. (2006). CEO incentives and earnings management, *Journal of Financial* Economics, *80*(3): 511-529.

Bhattacharya, U., Daouk, H., & Welker, M. (2003). The world price of earnings opacity. *The Accounting Review*, *78*(3), 641-678.

Blaikie, N., (2007). *Approaches to social enquiry*. 2nd edition, polity press.

Botzem, S., & Quack, S. (2009). (No) limits to Anglo-American accounting? Reconstructing the history of the International Accounting Standards Committee: a review article. *Accounting, Organizations and Society*, *34*(8), 988-998.

Buckley, J. W., & Buckley, M. H. (1974). *The accounting profession*: Melville Pub. Co.

Burrell, G. & Morgan, G. (1979) *Sociological paradigms and organisational analysis: elements of the sociology of corporate life*, London: Heinemann . Aldershot: Ashgate.

Burgstahler, D., & Dichev, I. (1997). Earnings management to avoid earnings decreases and losses. *Journal of accounting and economics*, *24*(1), 99-126.

Burgstahler, D. C., Hail, L., & Leuz, C. (2006). The importance of reporting incentives: earnings management in European private and public firms. *The accounting review*, *81*(5), 983-1016.

Bushman, R. M., & Smith, A. J. (2001). Financial accounting information and corporate governance. *Journal of accounting and Economics*, 32(1), 237-333.

Bushman, R.M., Piotroski, J. D., & Smith, A. J. (2004). What determines corporate transparency?. *Journal of accounting research*, *42*(2), 207-252.

Bushman, R.M., & Piotroski, J. D. (2006). Financial reporting incentives for conservative accounting: The influence of legal and political institutions. *Journal of Accounting and Economics*, *42*(1), 107-148.

Byard, D., Li, Y., & Yu, Y. (2011). The effect of mandatory IFRS adoption on financial analysts' information environment. *Journal of Accounting Research*, *49*(1): 69-96.

Cadenhead, G. M. (1970). 'Differences in circumstances': fact or fantasy? *Abacus*, *6*(1), 71-80.

Cahan, S. F., Emanuel, D., & Sun, J. (2009). The effect of earnings quality and country-level institutions on the value relevance of earnings. *Review of Quantitative Finance and Accounting*, *33*(4), 371-391.

Callao, S., & Jarne, J.I. (2010). Have IFRS affected earnings management in the European Union? *Accounting in Europe*, *7*(2): 159 – 189.

Camfferman, K., & Zeff, S.A. (2007). *Financial reporting and global capital markets: A history of the International Accounting Standards Committee*, 1973–2000. Oxford, U.K.: Oxford University Press.

Capkun, V., Collins, D. W., & Jeanjean, T. (2012). Does adoption of IAS/IFRS deter earnings management. Available at SSRN: http://ssrn.com/abstract=1850228.

Carroll, T. J., Linsmeier, T. J., & Petroni, K. R. (2003). The reliability of fair value versus historical cost information: Evidence from closed-end mutual funds. *Journal of Accounting, Auditing & Finance*, *18*(1), 1-24.

Chen, H., Tang, Q., Jiang, Y., & Lin, Z. (2010). The role of international financial reporting standards in accounting quality: evidence from the European Union. *Journal of International Financial Management and Accounting*, *21*(3), 220-278.

Chen, L. H., Folsom, D. M., Paek, W., & Sami, H. (2014). Accounting conservatism, earnings persistence, and pricing multiples on earnings. *Accounting Horizons*, *28*(2), 233-260.

Chiapello, E., & Medjad, K. (2009). An unprecedented privatisation of mandatory standard setting: The case of European accounting policy. *Critical Perspectives on Accounting*, *20*(4), 448-468.

Choi, B., Collins, D.W., & Johnson, W.B. (1997). Valuation implications of reliability differences: the case of non-pension postretirement obligations. *The Accounting Review*, *72*(3): 351–383.

Christensen, H. B., Hail, L., & Leuz, C. (2013). Mandatory IFRS reporting and changes in enforcement. *Journal of Accounting and Economics*, *56*(2), 147-177.

Christensen, H.B., Lee, E., Walker, M., & Zeng, C. (2015). Incentives or standards: What determines accounting quality changes around IFRS adoption?. *European Accounting Review*, *24*(1), 31-61.

Clarkson, P., Hanna, J. D., Richardson, G. D., & Thompson, R. (2011). The impact of IFRS adoption on the value relevance of book value and earnings. *Journal of Contemporary Accounting & Economics*, *7*(1), 1-17.

Cohen, D. A., Dey, A., & Lys, T. Z. (2008). Real and accrual-based earnings management in the pre and post-Sarbanes-Oxley periods. *The Accounting Review, 83*(3), 757-787.

Cohen, D. A., & Zarowin, P. (2010). Accrual-based and real earnings management activities around seasoned equity offerings. *Journal of Accounting and Economics, 50*(1), 2-19.

Collins, D. W., Maydew, E. L., & Weiss, I. S. (1997). Changes in the value-relevance of earnings and book values over the past forty years. *Journal of accounting and economics, 24*(1), 39-67.

Collins, D. W., Pincus, M., & Xie, H. (1999). Equity valuation and negative earnings: The role of book value of equity. *The Accounting Review, 74*(1), 29-61.

Collis, J. and Hussey, R. (2009). *Business research: a practical guide for undergraduate and postgraduate students*. 3rd edition. London: Palgrave Macmillan.

Committee of European Securities Regulators (CESR). (2003). *Standard No. 1 on financial information: enforcement of standards on financial information in Europe*, CESR/03-073. Paris. Available at: http://www.esma.europa.eu/system/files/03_073.pdf. (Accesses June 2013).

Cooke, T. E., & Wallace, R. O. (1990). Financial disclosure regulation and its environment: A review and further analysis. *Journal of Accounting and Public Policy, 9*(2), 79-110.

Creswell, J. (1994). *Qualitative inquiry and research design: choosing among five traditions*. London, Sage Publications Inc. Ltd.

Crump, R. (2013). Battle over 'prudence' isolates the IASB. *AccountancyAge.* Available at: http://www.accountancyage.com/aa/blog-post/2301329/battle-over-prudence-isolates-the-iasb. (Accessed 25 May 2015).

d'Arcy, A. (2001). Accounting classification and the international harmonisation debate—an empirical investigation. *Accounting, Organizations and Society, 26*(4), 327-349.

Da Costa, R. C., Bourgeois, J. C., & Lawson, W. M. (1978). A classification of international financial accounting practices. *International Journal of Accounting, 13*(2), 73-85.

Daske, H., Hail, L., Leuz, C., & Verdi, R. (2007). Adopting a label: Heterogeneity in the economic consequences around IAS/IFRS adoptions. Working paper, Wharton School.

Daske, H., Hail, L., Leuz, C., & Verdi, R. (2008). Mandatory IFRS adoption around the world: Early evidence on the economic consequences. *Journal of Accounting Research, 46*(5), 1085–1142.

Daske, H., Hail, L., Leuz, C., & Verdi, R. (2013). Adopting a label: Heterogeneity in the economic consequences around IAS/IFRS adoptions. *Journal of Accounting Research, 51*(3), 495-547.

Davis-Friday, P. Y., Eng, L. L., & Liu, C. S. (2006). The effects of the Asian crisis, corporate governance and accounting system on the valuation of book value and earnings. *The International Journal of Accounting, 41*(1), 22-40.

DeAngelo, H., DeAngelo, L., & Skinner, D. J. (1994). Accounting choice in troubled companies. *Journal of accounting and economics, 17*(1), 113-143.

Dechow, P. M., & Sloan, R. G. (1991). Executive incentives and the horizon problem: An empirical investigation. *Journal of accounting and Economics*, 14(1), 51-89.

Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. *The Accounting review*, *70*(2): 193-225.

Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1996). Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the sec. *Contemporary accounting research*, *13(*1), 1-36.

Dechow, P.M., & Skinner, D.J. (2000). Earnings management: Reconciling the views of accounting academics, practitioners, and regulators. *Accounting Horizons*, *14*(2), 235-250.

Dechow, P. M., & Dichev, I. D. (2002). The quality of accruals and earnings: The role of accrual estimation errors. *The accounting review*, *77*(s-1), 35-59.

Dechow, P. M., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, *50*(2), 344-401.

Djankov, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2008). The law and economics of self-dealing. *Journal of Financial Economics*, *88*(3), 430-465.

Deegan, C., & Unerman, J. (2011). *Financial accounting theory: European edition*. 2 ed. McGraw Hill.

DeFond, M. L., & Jiambalvo, J. (1994). Debt covenant violation and manipulation of accruals. *Journal of accounting and economics*, *17(*1), 145-176.

DeFond, M. L., & Subramanyam, K. R. (1998). Auditor changes and discretionary accruals. *Journal of accounting and Economics*, *25*(1), 35-67.

DeFond, M.,L. (2010). Earnings quality research: Advances, challenges and future research. *Journal of Accounting and Economics*, *50*(2), 402–409.

Degeorge, F., Patel, J., & Zeckhauser, R. (1999). Earnings management to exceed thresholds. *The Journal of Business*, *72*(1), 1-33.

Deloitte, n.d.a. *IFRS in Europe – Background information.* Online. Available at: http://www.iasplus.com/en-gb/resources/ifrs-topics/europe/ifrs-in-europe

Deloitte, n.d.b. *Use of IFRSs by jurisdiction - G20 domestic listed companies* available at: http://www.iasplus.com/en-gb/resources/ifrs-topics/use-of-ifrs-g20/#totals. (Accessed 25 August 2014)

Deloitte. (2007). *IFRS in your pocket 2007*. Retrieved from www.iasplus.com

Deloitte. (2014). *IFRS in your pocket 2014*. Retrieved from www.iasplus.com

Devalle, A., Onali, E., & Magarini, R. (2010). Assessing the value relevance of accounting data after the introduction of IFRS in Europe. *Journal of international financial management & accounting*, *21*(2), 85-119.

Dietrich, J. R., Muller III, K. A., & Riedl, E. J. (2007). Asymmetric timeliness tests of accounting conservatism. *Review of Accounting Studies, 12*(1), 95-124.

Ding, Y., Hope, O. K., Jeanjean, T., & Stolowy, H. (2007). Differences between domestic accounting standards and IAS: Measurement, determinants and implications. *Journal of accounting and public policy, 26*(1), 1-38.

Doukakis, L. C. (2014). The effect of mandatory IFRS adoption on real and accrual-based earnings management activities. *Journal of Accounting and Public Policy, 33*(6), 551-572.

Doupnik, T. S. & Salter, S. B. (1995). External environment, culture, and accounting practice: a preliminary test of a general model of international accounting development. *The International Journal of Accounting, 30*, 189-207.

Doyle, J. T., Ge, W., & McVay, S. (2007). Accruals quality and internal control over financial reporting. *The Accounting Review, 82*(5), 1141-1170.

Easterby-Smith, M., Thorpe, R. and Lowe, A., (2004). *Management research: An introduction.* 2nd edition .London: Sage Publications.

Ebrahim, A. (2007). Earnings management and board activity: An additional evidence. *Review of Accounting & Finance, 6*(1), 42–58.

EC Regulation 2086. (2004). *Commission Regulation (EC) No 2086/2004 of 19 November 2004 amending regulation (EC) No 1725/2003 on the adoption of certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council as regards the insertion of IAS39.* Available at: http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32004R2086. (Accessed 20 August 2014)

EC Regulation 1864, (2005). Commission Regulation (EC) No 1864/2005 of 15 November 2005 amending regulation (EC) No 1725/2003 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council, as regards International Financial Reporting Standard No 1 and International Accounting Standards Nos. 32 and 39. Available at: http://eurlex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32005R1864&from=EN. (Accessed 20 August 2014)

EFRAG, n.d. *EFRAG facts*. Available at: http://www.efrag.org/Front/c1-262/EFRAG-Facts.aspx. (Accessed 05 August 2014)

EFRAG, (2014). The EU endorsement status report position as at 12 August 2014. Available at: http://www.efrag.org/WebSites/UploadFolder/1/CMS/Files/Endorsement%20status%20report/EFRAG_Endorsement_Status_Report__12_AUGUST_2014.pdf. (Accessed 12 August 2014)

Erickson, M., & Wang, S. W. (1999). Earnings management by acquiring firms in stock for stock mergers. *Journal of Accounting and Economics, 27*(2), 149-176.

Evans, L. (2004). Language, translation and the problem of international accounting communication. *Accounting, Auditing & Accountability Journal, 17*(2), 210-248.

European Commission (EC) . (2014). *Accounting Regulatory Committee (ARC).* Available at: http://ec.europa.eu/internal_market/accounting/governance/committees/arc/index_en.htm

Ewert, R., & Wagenhofer, A. (2005). Economic effects of tightening accounting standards to restrict earnings management. *The Accounting Review, 80*(4), 1101-1124.

Ewert, R., & Wagenhofer, A. (2013). Accounting standards, earnings management, and earnings quality. Earnings Management, and Earnings Quality. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2068134

Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy, 88*(2), 288–307.

Fama, E.F., & Jensen, M.C., (1983). Separation of ownership and control. Journal of Law and Economics, *26*(2), 301–325.

Fan, J. P., & Wong, T. J. (2002). Corporate ownership structure and the informativeness of accounting earnings in East Asia. *Journal of accounting and economics, 33*(3), 401-425.

Farmer, R. N., & Richman, B. M. (1966). Comparative management and economic progress. *The International Executive, 8*(1), 19-20.

FEE (2002), discussion paper on enforcement of IFRS within Europe, Fe´de´ration des Experts Comptables Europe´ens, Brussels. Available at: http://www.fee.be/images/publications/accounting/DP%20on%20Enforcement%20of%20IFRS%20within%20Europe%20020416320058118.pdf. (Accessed June 2013)

Filip, A., & Raffournier, B. (2014). Financial crisis and earnings management: The European evidence. *The International Journal of Accounting, 49*(4), 455-478.

Financial Accounting Standards Board (FASB). (1980). *Statement of financial accounting concepts No. 2: qualitative characteristics of accounting information*. Financial Accounting Standards Board.

Francis, J., & Schipper, K. (1999). Have financial statements lost their relevance? *Journal of Accounting Research, 37*(2), 319-352.

Francis, J., LaFond, R., Olsson, P. M., & Schipper, K. (2004). Costs of equity and earnings attributes. *The Accounting Review, 79*(4), 967-1010.

Francis, J., LaFond, R., Olsson, P., & Schipper, K. (2005). The market pricing of accruals quality. *Journal of Accounting and Economics, 39*(2), 295-327.

Francis, J.R., & Wang, D. (2008). The joint effect of investor protection and big 4 audits on earnings quality around the world. *Contemporary Accounting Research, 25*(1), 157-191.

Frank, W. G. (1979). An empirical analysis of international accounting principles. *Journal of Accounting Research, 17*(2), 593-605.

FRC, (2002). *Broad strategic direction provided by the financial reporting council to the Australian accounting standards board for 2002-03*. *http://www.aasb.gov.au/admin/file/content102/c3/FRC_Broad_Strategic_Direction.pdf (Accessed 25 Jul 2014)*

García Lara, J. M. G., Osma, B. G., & Penalva, F. (2009). Accounting conservatism and corporate governance. *Review of Accounting Studies*, *14*(1), 161-201.

García Lara, J. M. G., Osma, B. G., & Penalva, F. (2011). Conditional conservatism and cost of capital. *Review of Accounting Studies*, *16*(2), 247-271.

Garcia-Osma, B., & Pope, P. F. (2011). Strategic balance sheet adjustments under first-time IFRS adoption and the consequences for earnings quality. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1735009

García Lara, J. M., Garcia Osma, B., & Penalva, F. (2012). Accounting conservatism and the limits to earnings management. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2165694.

Glaum, M., Schmidt, P., Street, D. L., & Vogel, S. (2013). Compliance with IFRS 3-and IAS 36-required disclosures across 17 European countries: company-and country-level determinants. *Accounting and Business Research*, *43*(3), 163-204.

Gassen, J., & Sellhorn, T. (2006). Applying IFRS in Germany: Determinants and consequences. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=906802

Gassen, J. Fülbier, R.U. & Sellhorn, T. (2006). International differences in conditional conservatism – the role of unconditional conservatism and income smoothing. *European Accounting Review, 15*(4), 527-564.

Gernon, H., & Wallace, R. O. (1995). International accounting research: A review of its ecology, contending theories, and methodologies. *Journal of Accounting Literature*, *14*, 54-106.

Givoly, D., & Hayn, C. (2000). The changing time-series properties of earnings, cash flows and accruals: Has financial reporting become more conservative?. *Journal of Accounting and Economics*, *29*(3), 287-320.

Givoly, D., Hayn, C. K., & Natarajan, A. (2007). Measuring reporting conservatism. *The Accounting Review*, *82*(1), 65-106.

Gow, I. D., Ormazabal, G., & Taylor, D. J. (2010). Correcting for cross-sectional and time-series dependence in accounting research. *The Accounting Review*, *85*(2), 483-512.

Graham, R. C., & King, R. D. (2000). Accounting practices and the market valuation of accounting numbers: Evidence from Indonesia, Korea, Malaysia, the Philippines, Taiwan, and Thailand. *The International Journal of Accounting*, *35*(4), 445-470.

Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics*, *40*(1), 3-73.

Gray, S. J. (1988). Towards a theory of cultural influence on the development of accounting systems internationally. *Abacus, 24*(1), 1-15.

Gray, D., E., (2009). *Doing research in the real world*. 2nd edition. London: SAGA Publications Ltd.

Guidry, F., Leone, A. J., & Rock, S. (1999). Earnings-based bonus plans and earnings management by business-unit managers. *Journal of Accounting and Economics, 26*(1), 113-142.

Gunny, K.,(2005).What are the consequences of real earnings management ? Working Paper, University of Colorado.

Gunny, K. A. (2010). The relation between earnings management using real activities manipulation and future performance: Evidence from meeting earnings benchmarks. *Contemporary Accounting Research, 27*(3), 855-888.

Hallebone, E. and Priest, J., (2009). *Business and management research: paradigms & practices*, Palgrave Macmillan.

Harris, T. S., Lang, M., & Mőller, H. P. (1994). The value relevance of German accounting measures: An empirical analysis. *Journal of Accounting Research, 32*(2), 187-209.

Harrison, G. L., & McKinnon, J. L. (1986). Culture and accounting change: A new perspective on corporate reporting regulation and accounting policy formulation. *Accounting, organizations and Society, 11*(3), 233-252.

Hayn, C. (1995). The information content of losses. *Journal of Accounting and Economics, 20*(2), 125-153.

Healy, P. M. (1985). The effect of bonus schemes on accounting decisions. *Journal of Accounting and Economics, 7*(1), 85-107.

Healy, P. M., & Wahlen, J. M. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting horizons, 13*(4), 365-383.

Heflin, F., Hsu, C., & Jin, Q. (2014). Accounting conservatism and Street earnings. *Review of Accounting Studies, 20*(2), 674-709.

Hofstede, G. (1980). *Culture's consequences*, Sage Publications.

Hofstede, G. (1983). The cultural relativity of organizational practices and theories. *Journal of International Business Studies*, 75-89.

Holthausen, R. W., Larcker, D. F., & Sloan, R. G. (1995). Annual bonus schemes and the manipulation of earnings. *Journal of Accounting and Economics, 19*(1), 29-74.

Holthausen, R. W., & Watts, R. L. (2001). The relevance of the value-relevance literature for financial accounting standard setting. *Journal of Accounting and Economics, 31*(1), 3-75.

Hoogervorst, H. (2012). The Concept of Prudence: dead or alive. In conference address. FEE Conference on *corporate reporting of the future*, Brussels, Belgium (Vol. 18).

Hoogervorst, H. (2015). Committed to standards reflecting economic reality. *The Financial Times.* Available at: http://www.ft.com/cms/s/0/168510c8-b69e-11e4-a5f2-00144feab7de.html?siteedition=uk#axzz3XqcRKnFM. (Accessed 10 April 2015)

Hope, O. K. (2003). Disclosure practices, enforcement of accounting standards, and analysts' forecast accuracy: An international study. *Journal of accounting research, 41*(2), 235-272.

Hope, O. K., Kang, T., Thomas, W., & Yoo, Y. K. (2008). Culture and auditor choice: A test of the secrecy hypothesis. *Journal of Accounting and Public Policy, 27*(5), 357-373.

Houqe, N., Van Zijl, T., Dunstan, K., & Karim, W. (2012). The effect of IFRS adoption and investor protection on earnings quality around the world. *The International Journal of Accounting , 47*(3), 333-355.

Hove, M. R. (1986). Accounting practices in developing countries: colonialism's legacy of inappropriate technologies. *International Journal of Accounting Education and Research, 22*(1), 81 100.

Hribar, P., & Collins, D. W. (2002). Errors in estimating accruals: Implications for empirical research. *Journal of Accounting Research, 40*(1), 105-134.

Hribar, P., & Nichols, C. D. (2007). The use of unsigned earnings quality measures in tests of earnings management. *Journal of Accounting Research, 45*(5), 1017-1053.

Hui, K. W., Matsunaga, S., & Morse, D. (2009). The impact of conservatism on management earnings forecasts. *Journal of Accounting and Economics, 47*(3), 192-207.

Hung, M. (2001). Accounting standards and value relevance of financial statements: An international analysis. *Journal of Accounting and Economics, 30*(3), 401-420.

Hung, M., & Subramanyam, K. R. (2007). Financial statement effects of adopting international accounting standards: the case of Germany. *Review of accounting studies, 12*(4), 623-657.

IAS Regulation. (2002). Regulation No. 1606/2002 of the European Parliament and of the Council. (19 July). Available at: http://www.esma.europa.eu/system/files/Reg_1606_02.pdf. (Accessed 10 July 2014)

International Accounting Standards Board (IASB). (2010). *The conceptual framework for financial reporting 2010*. London.

IASC Foundation, (2009). *Changes in the constitution: Report of the IASC Foundation trustees on Part 1 of their Review. Available at:* http://www.ifrs.org/About-us/IFRS-Foundation/Oversight/Constitution/Constitution-Review/2008-2010-Constitution-Review-part-one/Documents/ConstitutionReviewP1May09.pdf

IASC Foundation, (2010). *IASC Foundation to become IFRS Foundation on 1 July 2010*. Available at: http://www.ifrs.org/News/Announcements-and-Speeches/Pages/IASC-Foundation-name-change.aspx. (Accessed 30 Jul 2014)

IFRS Foundation, (2013a), *Annual Report 2013,* IFRS Foundation. (Accessed 25 Jul 2014)

IFRS Foundation, (2013b), *Constitution revised and approved by the trustees January 2013*, IFRS Foundation. (Accessed 25 Jul 2014)

IFRS Foundation, n.d. *Jurisdiction profiles*, http://www.ifrs.org/Use-around-the-world/Pages/Jurisdiction-profiles.aspx (Accessed 01-09-2014).

IFRS Foundation. (2014). IFRS 9 Financial Instruments. Available at: http://www.ifrs.org/Current-Projects/IASB-Projects/Financial-Instruments-A-Replacement-of-IAS-39-Financial-Instruments-Recognitio/Documents/IFRS-9-Project-Summary-July-2014.pdf(Accessed 01-09-2014).

International Accounting Standards Committee (IASC). (1989). *Framework for the preparation and presentation of financial statements.* Published by the International Accounting Standards Committee Board (IASC Board) in July 1989 and adopted by the International Accounting standards Board (IASB) in April 2001. (Accessed 25 Jul 2014)

Isidro, H., & Raonic, I. (2012). Firm incentives, institutional complexity and the quality of "harmonized" accounting numbers. *The International Journal of Accounting*, *47*(4), 407-436.

Iyengar, R. J., & Zampelli, E. M. (2010). Does accounting conservatism pay? *Accounting & Finance*, *50*(1), 121-142.

Jackson, S. B., & Liu, X. K. (2010). The allowance for uncollectible accounts, conservatism, and earnings management. *Journal of Accounting Research, 48*(3), 565-601.

Jeanjean, T., & Stolowy, H. (2008). Do accounting standards matter? An exploratory analysis of earnings management before and after IFRS adoption. *J. Account. Public Policy*, *27*(6), 480-494.

Jeanjean, T. (2012). The effect of IFRS adoption, investor protection and earnings quality: Some reflections. *The International Journal of Accounting*, *47*(3), 356-362.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.

Jermakowicz, E. K., Prather-Kinsey, J., & Wulf, I. (2007). The Value relevance of accounting income reported by DAX-30 German companies. *Journal of International Financial Management &* Accounting, *18*(3), 151-191.

Jetuah, D. (2008). Tweedie nearly quit after fair value change. *AccountnacyAge*. Available at: http://www.accountancyage.com/aa/news/1754115/tweedie-nearly-quit-fair-value-change. (Accessed 20 June 2014)

Jones, J. J. (1991). Earnings management during import relief investigations. *Journal of Accounting Research, 29*(2), 193-228.

Joos, P., & Lang, M. (1994). The effects of accounting diversity: Evidence from the European Union. *Journal of Accounting Research, 32,* 141-168.

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2007). Governance matters VI: aggregate and individual governance indicators. *World Bank Policy Research Working Paper, 4280.*

Kim, M., & Kross, W. (2005). The ability of earnings to predict future operating cash flows has been increasing-not decreasing. *Journal of Accounting Research, 43*(5), 753-780.

Kim, Y., Li, S., Pan, C., & Zuo, L. (2013). The role of accounting conservatism in the equity market: Evidence from seasoned equity offerings. *The Accounting Review, 88*(4), 1327-1356.

King, R. D., & Langli, J. C. (1998). Accounting diversity and firm valuation. *The International Journal of Accounting, 33*(5), 529-567.

Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics, 33*(3), 375-400.

Kothari, S.P., Lys, T., Smith, C., & Watts, R., (1988). Auditor liability and information disclosure. *Journal of Accounting, Auditing, and Finance, 3,* 307–339.

Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics, 39*(1), 163-197.

Kothari, S. P., Ramanna, K., & Skinner, D. J. (2010). Implications for GAAP from an analysis of positive research in accounting. *Journal of Accounting and Economics, 50*(2), 246-286.

Kothari, S. P., Mizik, N., & Roychowdhury, S. (2015). Managing for the moment: The role of earnings management via real activities versus accruals in SEO valuation . *Accounting Review, Forthcoming*. Available at SSRN: http://ssrn.com/abstract=1982826

Kuhn, T., S., (1996). *The Structure of scientific revolutions*. 3rd edition. Chicago: University of Chicago Press.

Kvaal , E., & Nobes, C. (2010). International differences in IFRS policy choice: A research note. *Accounting and Business Research, 40*(2), 173-187.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R., (1997). Legal determinants of external finance. *Journal of Finance, 52* (3), 1131-50.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R., (1998). Law and finance. *Journal of Political Economy, 106,* 1113-55.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics, 58*(1-2), 3-27.

La Porta, R., Lo´pez-de-Silanes, F., Pop-Eleches, C., & Shleifer, A. (2004). Judicial checks and balances, *Journal of Political Economy,112* (2), 445-470.

La Porta, R., Lo´pez-de-Silanes, F., & Shleifer, A. (2006). What works in securities laws?. *Journal of Finance, 61* (1), 1-32.

Lawrence, S. (1996). *International accounting*, International Thomson Business Press.

Leggett, D., Parsons, L. M., & Reitenga, A. L. (2009). Real earnings management and subsequent operating performance. Available at : http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1466411

Leone, A. J., Wu, J. S., & Zimmerman, J. L. (2006). Asymmetric sensitivity of CEO cash compensation to stock returns. *Journal of Accounting and Economics*, *42*(1), 167-192.

Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: an international comparison. *Journal of financial economics*, *69*(3), 505-527.

Leuz, C. (2010). Different approaches to corporate reporting regulation: How jurisdictions differ and why. *Accounting and Business Research*, *40*(3), 229-256.

Lev, B., & Zarowin, P. (1999). The boundaries of financial reporting and how to extend them. *Journal of Accounting research*, *37*(2), 353-385.

Li, S., (2010). Does mandatory adoption of international financial reporting standards in the European Union reduce the cost of equity capital? *The Accounting Review*, *85*(2): 607-636.

Liao, Q., Sellhorn, T., & Skaife, H. A. (2012). The cross-country comparability of IFRS earnings and book values: Evidence from France and Germany. *Journal of International Accounting Research*, *11*(1), 155-184.

Louis, H. (2004). Earnings management and the market performance of acquiring firms. *Journal of financial economics*, *74*(1), 121-148.

Louis, H.,Lys,T., & Sun,A.X.(2014). Conservatism and analyst earnings forecast bias. (Working paper)Pennsylvania State University.

Myers, J. N., Myers, L. A., & Omer, T. C. (2003). Exploring the term of the auditor-client relationship and the quality of earnings: A case for mandatory auditor rotation?. *The Accounting Review*, *78*(3), 779-799.

McNichols, M., F. (2000). Research design issues in earnings management studies. *Journal of Accounting and Public Policy*, *19*(4), 313–345.

McVay, S., Nagar, V., & Tang, V. W. (2006). Trading incentives to meet the analyst forecast. *Review of Accounting Studies*, *11*(4), 575-598.

Meek, G. & Saudagaran, S. (1990). A survey of research on financial reporting in a transnational context. *Journal of Accounting Literature, 9,* 145-182.

Miller, M. H., & Modigliani, F. (1966). Some estimates of the cost of capital to the electric utility industry, 1954-57. *The American Economic Review*, *56*(3): 333-391.

Mueller, G. G. (1967). *International accounting*. New York: MacMillan.

Mueller, G. G. (1968). Accounting principles generally accepted in the United States versus those generally accepted elsewhere. *The International Journal of Accounting: Education and Research*, *3*(2), 91–103.

Nair, R. D., & Frank, W. G. (1980). The impact of disclosure and measurement practices on international accounting classifications. *Accounting review*, *55*(3), 426-450.

Nelson, K. K. (1996). Fair value accounting for commercial banks: An empirical analysis of SFAS No. 107. *The Accounting Review*, *71*(2): 161-182.

Niskanen, J., Kinnunen, J., & Kasanen, E. (2000). The value relevance of IAS reconciliation components: empirical evidence from Finland. *Journal of Accounting and Public Policy*, *19*(2), 119-137.

Nobes, C. W. (1981). An Empirical Analysis of International Accounting Principles: A Comment. *Journal of Accounting Research*, *19*(1), 268-270.

Nobes, C. W. (1983). A judgemental international classification of financial reporting practices. *Journal of Business Finance & Accounting*, *10*(1), 1-19.

Nobes, C. (1998). Towards a general model of the reasons for international differences in financial reporting. *Abacus*, *34*(2), 162-187.

Nobes, C. (2002), "Causes of international differences", in Nobes, C. and Parker, R. (Eds)., pp. 17-33.

Nobes, C. (2006). The survival of international differences under IFRS: towards a research agenda. *Accounting and business research*, *36*(3), 233-245.

Nobes, C. 2011a. IFRS practices and the persistence of accounting system classification. Abacus, *47*, 267-283.

Nobes, C. (2011b). International variations in IFRS adoption and practice. *Certified Accountants Educational Trust (London)*, 1-44.

Nobes, C. (2013). The continued survival of international differences under IFRS. *Accounting and Business Research*, *43*, 83-111.

O'Connell, V. (2007). Reflections on stewardship reporting. *Accounting Horizons*, *21*(2), 215-227.

Ohlson, J. A. (1995). Earnings, book values, and dividends in equity valuation. *Contemporary Accounting Research, 11(*2), 661-687.

Paananen, M. (2008). The IFRS adoption's effect on accounting quality in Sweden. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1097659.

Paananen, M., & Lin, H. (2009). The development of accounting quality of IAS and IFRS over time: The case of Germany. *Journal of International Accounting Research*, *8*(1), 31-55.

Pae, J., & Thornton, D. B. (2010). Association between accounting conservatism and analysts' forecast inefficiency. *Asia-Pacific Journal of Financial Studies*, *39*(2), 171-197.

Park, M. S., & Park, T. (2004). Insider sales and earnings management. *Journal of Accounting and Public Policy, 23*(5): 381-411.

Patatoukas, P. N., & Thomas, J. K. (2011). More evidence of bias in the differential timeliness measure of conditional conservatism. *The Accounting Review*, *86*(5), 1765-1793.

Peasnell, K. V., Pope, P. F., & Young, S. (2005). Board monitoring and earnings management: do outside directors influence abnormal accruals?. *Journal of Business Finance & Accounting*, *32*(7-8), 1311-1346.

Peek, E., Cuijpers, R., & Buijink, W. (2010). Creditors' and shareholders' reporting demands in public versus private firms: evidence from Europe. *Contemporary Accounting Research*, *27*(1), 49 91.

Penman, S. H., & Zhang, X. J. (2002). Accounting conservatism, the quality of earnings, and stock returns. *The accounting review*, *77*(2), 237-264.

Perera, M. (1989). Towards a framework to analyze the impact of culture on accounting. *The International Journal of Accounting*. *24*, 42-56.

Petersen, M. A. (2009). Estimating standard errors in finance panel data sets: Comparing approaches. *Review of financial studies*, *22*(1), 435-480.

Previts, G. J. (1975). On the subject of methodology and models for international accountancy. *The International Journal of Accounting*, *10*(2), 1-12.

PricewaterhouseCoopers (PWC). (2008). Singapore financial reporting standards pocket guide 2008 edition. Available at: https://www.pwc.com/sg/en/illustrative-annual-report-2008/assets/pocket1-39.pdf. (Accessed 05 June 2014)

Quinn, K., Curtiss, F., Landell-Mills, N., Richards, I., Tracey, E., Collinge, R. & Talbut, R. (2015). Restore prudence as overriding principle. *The Financial Times*. Available at: http://www.ft.com/cms/s/0/b2341422-b565-11e4-8362-00144feab7de.html?siteedition=uk#axzz3XqcRKnFM. (Accessed 10 April 2015)

Radebaugh, L. H. (1975). Environmental factors influencing the development of accounting objectives, standards and practices in Peru. *The International Journal of Accounting Education and Research*, *11*(1), 39-56.

Ramanna, K. (2013). The international politics of IFRS harmonization. *Accounting, Economics and Law*, *3*(2), 1-46.

Rangan, S. (1998). Earnings management and the performance of seasoned equity offerings. *Journal of Financial Economics*, *50*(1), 101-122.

Richardson, S. A., Sloan, R. G., Soliman, M. T., & Tuna, I. (2005). Accrual reliability, earnings persistence and stock prices. *Journal of Accounting and Economics*, *39*(3), 437-485.

Rogers, J. L., Van Buskirk, A., & Zechman, S. L. (2011). Disclosure tone and shareholder litigation. *The Accounting Review*, 86(6), 2155-2183.

Rosner, R. L. (2003). Earnings manipulation in failing firms. *Contemporary Accounting Research*, *20*(2), 361.

Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics*, *42*(3), 335-370.

Roychowdhury, S., & Watts, R. L. (2007). Asymmetric timeliness of earnings, market-to-book and conservatism in financial reporting. *Journal of Accounting and Economics*, *44*(1), 2-31.

Ruch, G. W., & Taylor, G. (2015). Accounting conservatism: A review of the literature. *Journal of Accounting Literature*, *34*, 17-38.

Ryan, S. G. (2006). Identifying conditional conservatism. *European accounting review*, *15*(4), 511-525.

Saunders, M., Lewis, P. and Thornhill, A. (2007), *Research methods for business students*. 4th edition. Essex: FT Prentice Hall.

Saudagaran, S. M., & Diga, J. G. (1997a). Accounting regulation in ASEAN: a choice between the global and regional paradigms of harmonization. *Journal of International Financial Management & Accounting*, *8*(1), 1-32.

Saudagaran, S. M., & Diga, J. G. (1997b). Financial reporting in emerging capital markets: Characteristics and policy issues. Accounting Horizons, *11*(2), 41.

Saudagaran, S. M., & Diga, J. G. (1999). Evaluation of the contingency-based approach in comparative international accounting: a case for alternative research paradigms. *Journal of Accounting Literature*, *18*, 57-95.

Schipper, K. (1989). Commentary on earnings management. *Accounting Horizons*, *3*(4), 91-102.

Schipper, K. (2003). Principles-based accounting standards. *Accounting Horizons*, *17*(1), 61-72.

Schipper, K., & Vincent, L. (2003). Earnings quality. *Accounting Horizons*,*17*, 97-110.

Schweikart, J. A. (1985). Contingency theory as a framework for research in international accounting. *International Journal of Accounting*, *21*(1), 89-98.

Seidler, L. J. (1967). International accounting -- The ultimate theory course. *The Accounting Review*, *42*(4), 775-781.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, 52(2), 737-783.

Siregar, S. V., & Utama, S. (2008). Type of earnings management and the effect of ownership structure, firm size, and corporate-governance practices: Evidence from Indonesia. *The International Journal of Accounting*, 43(1), 1-27.

Skinner, D. J., & Sloan, R. G. (2002). Earnings surprises, growth expectations, and stock returns or don't let an earnings torpedo sink your portfolio. *Review of Accounting Studies, 7*(2-3), 289-312.

Sloan, R. (1996). Do stock prices fully reflect information in accruals and cash flows about future earnings? *Accounting review*, *71*(3), 289-315.

Soderstrom, N.S., & Sun, k.M. (2007). IFRS adoption and accounting quality: A review. *European Accounting Review*, *16* (4): 675-702.

Soeters, J., & Schreuder, H. (1988). The interaction between national and organizational cultures in accounting firms. *Accounting, Organizations and Society*, *13*(1), 75-85.

Spamann, H. (2010). The "antidirector rights index" revisited. *Review of Financial Studies*, *23*(2), 467-486.

Stewart, D. W. (1981). The application and misapplication of factor analysis in marketing research. *Journal of Marketing Research*, *18*(1): 51-62.

Subramanyam, K. R. (1996). The pricing of discretionary accruals. *Journal of Accounting and Economics*, *22*(1), 249-281.

Sweeney, A. P. (1994). Debt-covenant violations and managers' accounting responses. *Journal of Accounting and Economics*, *17*(3), 281-308.

Teoh, S. H., Wong, T. J., & Rao, G. R. (1998). Are accruals during initial public offerings opportunistic?. *Review of Accounting Studies*, *3*(1-2), 175-208.

The Global Competitiveness Report 2008–2009. (2008). *World economic forum*. Geneva

The Global Competitiveness Report 2009–2010. (2009). *World economic forum*. Geneva

The Global Competitiveness Report 2010–2011. (2010). *World economic forum*. Geneva

The Global Competitiveness Report 2011–2012. (2011). *World economic forum*. Geneva

TheGuardian . (2011). Banks use accounting loopholes to inflate profits and bolster bonuses. [ONLINE] Available at: http://www.theguardian.com/business/2011/dec/14/banks-accounting-loopholes-profits-bonuses. (Accessed 01 October 15).

Thomas, A. P. (1986). The contingency theory of corporate reporting: Some empirical evidence. *Accounting, Organizations and Society*, *11*(3), 253-270.

Tweedie, D. (2006). *Prepared statement of sir David Tweedie, chairman of the international accounting standards board before the economic and monetary affairs committee of the European parliament*. Available at http://www.iasplus.com/en/binary/resource/0601tweedieeuspeech.pdf/view. (Accessed October 2012)

Van der Meulen, S., Gaeremynck, A., & Willekens, M. (2007). Attribute differences between US GAAP and IFRS earnings: An exploratory study. *The International Journal of Accounting*, *42*(2), 123-142.

Van Tendeloo, B., & Vanstraelen, A. (2005). Earnings management under German GAAP versus IFRS. *European Accounting Review*, *14*(1), 155-180.

Venkatachalam, M. (1996). Value-relevance of banks' derivatives disclosures. *Journal of Accounting and Economics*, *22*(1), 327-355.

Véron, N.(2007). *The global accounting experiment* (Vol. 2). Brussels: Bruegel.

Violet, W. J. (1983). The development of international accounting standards: an anthropological perspective. *International Journal of Accounting Education Research*, Spring 1983.

Walker, M. (2013). How far can we trust earnings numbers? What research tells us about earnings management. *Accounting and Business Research*, *43*(4), 445-481.

Watts, R.L., & Zimmerman. J.L. (1986). *Positive accounting theory*, Prentice-Hall, London.

Watts, R. L. (2003). Conservatism in accounting part I: Explanations and implications. *Accounting horizons*, *17*(3), 207-221.

Wong, M. F. (2000). The association between SFAS No. 119 derivatives disclosures and the foreign exchange risk exposure of manufacturing firms. *Journal of Accounting Research*, *38*(2): 387-417.

Zang, A.Y. (2012). Evidence on the trade-off between real activities manipulation and accrual-based earnings management. *The Accounting Review*. *87*(2):675-704.

Zeff, S. A. (2012). The evolution of the IASC into the IASB, and the challenges it faces. *The Accounting Review*, *87*(3), 807-837.

Zéghal, D., Chtourou, S., & Sellami, Y. M. (2011). An analysis of the effect of mandatory adoption of IAS/IFRS on earnings management. *Journal of International Accounting, Auditing and Taxation*, *20*(2), 61-72.

Zhang, W. (2008a). Real activities manipulation to meet analysts' cash flow forecasts. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1013228

Zhang, J. (2008b). The contracting benefits of accounting conservatism to lenders and borrowers. *Journal of Accounting and Economics*, *45*(1), 27-54.

Zysman, J. (1983). *Governments, markets, and growth: financial systems and the politics of industrial change*. Cornell University Press.

Appendices

Appendix 1 Table I Modified Jones model: the effect of investor protection

$$EM_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \beta_5 SHARES_{it} + \beta_6 INV + \varepsilon$$

	β_0	β_1	β_2	β_3	β_4	β_5	β_6
Coefficient	.0078	.215	-.004	.0003	.0023	-.0019	-.0004
(t-statistic)	2.43**	16.63***	-4.29***	1.99**	0.76	-3.69***	-2.92**
Adj. R^2	**0.11**						
Obs.	16328						

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 1 Table I: EM is the residuals from the modified Jones model. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. INV is the investor protection computed by component principle analysis of six variables. These variables are: BIND is the board independence scores from the World Economic Forum (2008-2011). SEC is the enforcement of securities laws scores from the World Economic Forum (2008-2011). MIN is the protection of minority shareholders interest scores from the World Economic Forum (2008-2011). ENF is the enforcement of accounting & auditing standards scores from the World Economic Forum (2008-2011). JUD is the judicial independence scores from the World Economic Forum (2008-2011). MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

Appendix 1 Table II Modified Jones model: the effect of enforcement

$$EM_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \beta_5 SHARES_{it} + \beta_6 ENF + \varepsilon$$

	β_0	β_1	β_2	β_3	β_4	β_5	β_6
Coefficient	.0199	.215	-.004	.0003	.0023	-.001	-.0021
(t-statistic)	4.42***	16.53***	-4.46***	1.97**	0.77	-3.35**	-3.43**
Adj. R^2	0.11						
Obs.	16328						

Notes to Appendix 1 Table II: EM is the residuals from the modified Jones model. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. ENF is the enforcement of accounting & auditing standards scores from the World Economic Forum (2008-2011).

Appendix 1 Table III Modified Jones model: the effect of the strength of capital market

$$EM_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \beta_5 SHARES_{it} + \beta_6 MS + \varepsilon$$

	β_0	β_1	β_2	β_3	β_4	β_5	β_6
Coefficient	.0091	.216	-.004	.0002	.0023	-.0004	-.00001
(t-statistic)	2.89 **	16.92***	-5.24 ***	1.88*	0.75	-0.68	-2.73 **
Adj. R^2	0.113						
Obs.	16328						

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 1 Table III: EM is the residuals from the modified Jones model. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

Appendix 1 Table IV The effect of investor protection on abnormal production costs, abnormal discretionary coasts and abnormal cash flows

Independent Variables	(1) Abnormal production costs Coefficient *t-value*	(2) Abnormal discretionary costs Coefficient *t-value*	(3) Abnormal cash flows Coefficient *t-value*
ROA	-.3612	.0457	-.3529
	*-11.31***	*1.61*	*-11.80****
SIZE	.0122	.004	.0065
	*3.23***	*1.59*	*4.30****
LEV	-.0003	.0001	-.0003
	-1.18	*0.30*	*-1.63*
GROWTH	.0123	-.0442	.0197
	1.57	*-4.56*	*4.58****
SHARES	-.006	-.0068	.0001
	*-2.53***	*-2.50***	0.09
INV	.0019	.0022	.0005
	*1.86**	*2.31***	*1.10*
Constant	-.009	.008	-.0110
	-1.04	*1.33*	*-1.84**
Observations	16328	16328	16328
Adj. R^2	0.057	0.010	0.19

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 1 Table IV: Abnormal cash flows are the residuals from equation (2) multiplied by negative one. Abnormal production costs are the residuals from equation (3). Abnormal discretionary expenses are the residuals from equation (4) after multiplying it by negative one. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. INV is the investor protection computed by component principle analysis of six variables. These variables are: BIND is the board independence scores from the World Economic Forum (2008-2011). SEC is the enforcement of securities laws scores from the World Economic Forum (2008-2011). MIN is the protection of minority shareholders interest scores from the World Economic Forum (2008-2011). ENF is the enforcement of accounting & auditing standards scores from the World Economic Forum (2008-2011). JUD is the judicial independence scores from the World Economic Forum (2008-2011). MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

Appendix 1 Table V Enforcement on abnormal production costs, abnormal discretionary costs, and abnormal cash flows

Independent Variables	(1) Abnormal production costs Coefficient *t-value*	(2) Abnormal discretionary costs Coefficient *t-value*	(3) Abnormal cash flows Coefficient *t-value*
ROA	-.3616	.0456	-.353
	*-11.36***	*1.60*	*-11.83****
SIZE	.0123	.0046	.0067
	*3.29***	*1.60*	*4.39****
LEV	-.0003	.0001	-.0003
	-1.15	*0.34*	*-1.65**
GROWTH	.0123	-.0439	.0196
	1.60	*-4.58*	*4.57****
SHARES	-.0069	-.0069	-.0001
	*-2.67***	*-2.54***	*-0.14*
ENF	.0088	.0082	.0033
	*2.32***	*2.31***	*1.97***
Constant	-.0592	-.0387	-.0299
	*-2.87***	*-1.98***	-4.37****
Observations	16328	16328	16328
Adj. R^2	0.057	0.010	0.19

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 1 Table V: Abnormal cash flows are the residuals from equation (2) multiplied by negative one. Abnormal production costs are the residuals from equation (3). Abnormal discretionary expenses are the residuals from equation (4) after multiplying it by negative one. ROA is return on assets, defined as net income divided by total assets. Size is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. ENF is the enforcement of securities laws scores from the World Economic Forum (2008-2011).

Appendix 1 Table VI The effect of strength of capital market on abnormal production costs, abnormal discretionary costs, and abnormal cash flows

Independent Variables	(1) Abnormal production costs Coefficient *t-value*	(2) Abnormal discretionary costs Coefficient *t-value*	(3) Abnormal cash flows Coefficient *t-value*
ROA	-.3659	.0441	-.3560
	*-11.27***	*1.57*	*-11.57****
SIZE	.015	.0055	.0084
	*3.66****	*1.77**	*6.23****
LEV	-.0002	.0001	-.0002
	-0.86	*0.50*	*-1.44*
GROWTH	.0124	-.0434	.0194
	1.61	*-4.59****	*4.51****
SHARES	-.0129	-.0091	-.0040
	*-3.68****	*-2.77***	*-2.25***
MS	.00007	.00003	.00004
	*2.84****	*2.19***	*2.59***
Constant	-.0144	.0047	-.0138
	*-1.65**	*0.78*	*-2.64***
Observations	16328	16328	16328
Adj. R^2	0.058	0.010	0.1922

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 1 Table VI: Abnormal cash flows are the residuals from equation (2) multiplied by negative one. Abnormal production costs are the residuals from equation (3). Abnormal discretionary expenses are the residuals from equation (4) after multiplying it by negative one. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

Appendix 1 Table VII Protection of minority shareholders' rights and earnings management

Independent Variables	(1) DAAC Coefficient *t-value*	(2) RM1 Coefficient *t-value*	(3) Rm2 Coefficient *t-value*
ROA	.2638	-.274	-.333
	*25.17****	*-7.87****	-13.67***
SIZE	-.0052	.0118	.0106
	*-4.46****	*2.30***	*3.06***
LEV	.0003	-.0003	-.0001
	*2.10***	-0.66	*-0.33*
GROWTH	-.0011	-.0281	-.0222
	-0.50	*-4.04****	*-3.79****
SHARES	-.0023	-.0113	-.005
	*-4.17****	*-2.66***	*-1.97***
MIN	-.00167	.0112	.007
	*-1.72**	*1.84**	1.74*
	.0198	-.0454	-.0400
Constant	*3.08***	*-1.46*	*-1.90**
Observations	16328	16328	16328
Adj. R^2	0.238	0.0169	0.0488

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 1 Table VII: DACCR is the level of abnormal accruals. Abnormal accruals are estimated using modified DD; RM1 is the first measure of real earnings management computed by adding abnormal production costs to the abnormal discretionary expenses after multiplying it by negative one. RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. MIN is the protection of minority shareholders interest scores from the World Economic Forum (2008-2011).

Appendix 1 Table VIII Anti-self dealing and earnings management

Independent Variables	(1) DACCR Coefficient *t-value*	(2) RM1 Coefficient *t-value*	(3) RM2 Coefficient *t-value*
ROA	.230	-.2760	-.334
	27.38***	-8.00***	-13.90***
SIZE	-.005	.007	.008
	-4.88***	1.67*	2.89**
LEV	.0002	-.0002	-.000
	*1.93**	*-0.38*	*-0.08*
GROWTH	-.00171	-.0286	-.0223
	-0.77	*-4.84****	*-4.25****
SHARES	No	No	No
Anti-Self	-.005	.0201	.012
	-3.61***	***1.65****	***1.74****
Constant	.011	-.0100	-.0164
	2.95**	-0.80	-1.92*
Observations	16328	16328	16328
Adj. R^2	0.2204	0.0161	0.0484

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 1 Table VIII: DACCR is the level of abnormal accruals. Abnormal accruals are estimated using modified DD; RM1 is the first measure of real earnings management computed by adding abnormal production costs to the abnormal discretionary expenses after multiplying it by negative one. RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. Anti-self is anti-self-dealing index in Djankov et al. (2008) ranging from 0 (low protection) to 1(high protection). We dropped shares in this model because of it is highly correlated with Anti-Self (0.53).

Appendix 1 Table IX Investor protection and strength of capital market

Independent Variables	(1) DACCR Coefficient *t-value*	(2) RM1 Coefficient *t-value*	(3) RM2 Coefficient *t-value*
ROA	.231	-.282	-.3402
	28.73***	-8.23***	-14.04***
SIZE	-.005	.0161	.0143
	-5.48***	2.90**	3.76***
LEV	.0002	-.0003	-.0000
	1.96*	-0.63	-0.21
GROWTH	-.0010	-.0297	-.0233
	-0.50	-4.60***	-4.15***
SHARES	9.87e-06	-.0212	-.0140
	0.01	-3.81***	-3.50***
INV	**-.0009**	.008	.0045
	-2.28**	2.61**	2.14**
MS	**-.0000**	**.000**	**.0000**
	-3.34**	**3.04****	**3.36****
Constant	.011	.0078	-.0079
	2.88**	0.67	-0.96
Observations	16328	16328	16328
Adj. R^2	0.222	0.0184	0.0509

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 1 Table IX: DACCR is the level of abnormal accruals. Abnormal accruals are estimated using modified DD; RM1 is the first measure of real earnings management computed by adding abnormal production costs to the abnormal discretionary expenses after multiplying it by negative one. RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. INV the investor protection is computed by component principle analysis of five variables. These variables are: BIND is the board independence scores from the World Economic Forum (2008-2011). SEC is the enforcement of securities laws scores from the World Economic Forum (2008-2011). MIN is the protection of minority shareholders interest scores from the World Economic Forum (2008-2011). ENF is the enforcement of accounting & auditing standards scores from the World Economic Forum (2008-2011). JUD is the judicial independence scores from the World Economic Forum (2008-2011). MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

Appendix 1 Table X Securities regulation and strength of capital market

Independent Variables	(1) DACCR Coefficient *t-value*	(2) RM1 Coefficient *t-value*	(3) RM2 Coefficient *t-value*
ROA	.231	-.281	-.3403
	28.89***	-8.29***	-14.07***
SIZE	-.005	.0155	.0140
	-5.52***	2.83**	3.77***
LEV	.000	-.0003	-.0000
	2.00**	-0.56	-0.19
GROWTH	-.0006	-.0301	-.0240
	-0.34	-4.28***	-3.99***
SHARES	-.0000	-.0201	-.0135
	-0.09	-3.71***	-3.50***
SEC	**-.0026**	**.0114**	**.008**
	-2.73**	**2.14****	**2.21****
MS	**-.0000**	**.0000**	**.000**
	-2.82**	**2.33****	**2.80****
	.0249	-.0511	-.0499
Constant	3.42**	-1.76**	-2.35**
Observations	16328	16328	16328
Adj. R^2	0.2223	0.0181	0.0509

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 1 Table X: DACCR is the level of abnormal accruals. Abnormal accruals are estimated using modified DD; RM1 is the first measure of real earnings management computed by adding abnormal production costs to the abnormal discretionary expenses after multiplying the latter by negative one. RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm I in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm I in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm I in year t. SEC is the enforcement of securities laws scores from the World Economic Forum (2008-2011). MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

Appendix 1 Table XI Investor protection (two factors)

Panel A principal-component factors				
Retained factors = 2				
Rotation: orthogonal varimax (Kaise off)				
Factor	**Variance**	**Difference**	**Proportion**	**Cumulative**
Factor1	4.30653	3.27801	0.7178	0.7178
Factor2	1.02852	.	0.1714	0.8892
LR test: independent vs. saturated: chi2(15) = 1.1e+05 Prob>chi2 = 0.0000				

Panel B: Rotated factor loadings (pattern matrix) and unique variances			
Variable	**Factor1**	**Factor2**	**Uniqueness**
BIND	0.9083	-0.3202	0.0725
SEC	0.9056	0.0849	0.1727
MIN	0.9228	-0.1967	0.1098
ACC	0.9772	0.0930	0.0364
JUD	0.8565	-0.0239	0.2658
MS	0.3483	0.9332	0.0078

Appendix 1 Table XII Investor protection (two factors) and earnings management

Independent Variables	(1) DACCR Coefficient *t-value*	(2) RM1 Coefficient *t-value*	(3) RM2 Coefficient *t-value*
ROA	.231	-.280	-.338
	28.77***	-8.20***	-14.11***
SIZE	-.005	.0152	.0137
	-5.43***	2.80**	3.71***
LEV	.000	-.000	-.000
	1.91**	-0.56	-0.14
GROWTH	-.0011	-.029	-.0231
	-0.53	-4.50***	-4.10***
SHARES	-.000	-.0196	-.0129
	-0.36	-3.64***	-3.37**
F1	-.000	.0079	.0044
	-1.83*	2.54**	2.25**
F2	-.002	.0122	.0111
	-2.92**	2.68**	3.11**
Constant	.008	.0200	.003
	2.17**	1.75**	0.36
Observations	16328	16328	16328
Adj. R^2	0.2217	0.0180	0.0505

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 1 Table XIII:

DACCR is the level of abnormal accruals. Abnormal accruals are estimated using modified DD; RM1 is the first measure of real earnings management computed by adding abnormal production costs to the abnormal discretionary expenses after multiplying it by negative one. RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t. **F1 and F2** are the rotated two factors to measure investor protection, computed by component principle analysis of six variables. These variables are: BIND is the board independence scores from the World Economic Forum (2008-2011). SEC is the enforcement of securities laws scores from the World Economic Forum (2008-2011). MIN is the protection of minority shareholders interest scores from the World Economic Forum (2008-2011). ENF is the enforcement of accounting & auditing standards scores from the World Economic Forum (2008-2011). JUD is the judicial independence scores from the World Economic Forum (2008-2011). MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

Appendix 1 Table XIII DAACR & RM1

$$EM_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \beta_5 SHARES_{it} + \beta_6 \mathbf{RM1} + \varepsilon \ (\mathbf{5})$$

Independent Variables		(1) DACCR Coefficient *t-value*
ROA	β_1	.2333 *26.58****
SIZE	β_2	-.00495 *-4.57****
LEV	β_3	.00026 *1.98 **
GROWTH	β_4	-.00119 *-0.54*
SHARES	β_5	-.001955 *-3.57 ****
RM1	β_6	.0126 ***4.88****
Constant	β_0	0.010 2.47**
Observations		16,328
Adj. R^2		0.224

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Table 6-8: DACCR is the level of abnormal accruals. Abnormal accruals are estimated using modified DD; RM1 is the first measure of real earnings management computed by adding abnormal production costs to the abnormal discretionary expenses after multiplying the latter by negative one. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t.

Appendix 1 Table XIV DAACR & RM2

$$EM_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 GROWTH_{it} + \beta_5 SHARES_{it} + \beta_6 \mathbf{RM2} + \varepsilon$$

Independent Variables		(1) DACCR Coefficient *t-value*
ROA	β_1	.2469
		25.83 ***
SIZE	β_2	-.00533
		*-4.57***
LEV	β_3	.00026
		2.04 **
GROWTH	β_4	-.00044
		-0.20
SHARES	β_5	-.00183
		-3.47 ***
RM2	β_6	.05118
		10.72 ***
Constant	β_0	0.010
		2.44**
Observations		16,328
Adj. R^2		0.247

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Table 6-8: DACCR is the level of abnormal accruals. Abnormal accruals are estimated using modified DD. RM2 is the second measure of real earnings management, which is the aggregation of both abnormal cash flow and abnormal discretionary expenses after multiplying them by negative one. ROA is return on assets, defined as net income divided by total assets. SIZE is the natural logarithm of total assets for firm i in year t. LEV is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. SHARES is the natural logarithm of outstanding shares for firm i in year t.

Appendix 2 Table I The pooled regression of conservatism

$$ACC_{i,t} = \beta_0 + \beta_1 DCFO_{i,t} + \beta_2 CFO_{i,t} + \beta_3 DCFO_{i,t} * CFO_1 + \varepsilon$$

	β_0	β_1	β_2	β_3	Adj. R^2	Obs.
Coefficient	-.0127	.0268	-.337	.327	% 15.05	16328
(t-statistic)	-1.49	4.05***	-29.10***	6.75***		

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 2 Table I:

ACC is total accruals in year t lagged by the total assets at the beginning of year t. CFO is cash flow from operations for firm it in year t. DCFO is a Dummy variable set equal to 1 if CFO <0 and 0 otherwise.

Appendix 2 Table II Anti-self-dealing and conservatism

$$ACC_{i,t} = \beta_0 + \beta_1 DCFO_{i,t} + \beta_2 CFO_{i,t} + \beta_3 DCFO_{i,t} * CFO_1 + \beta_4 SD + \beta_5 DCFO_{i,t} * SD + \beta_6 CFO_{i,t} * SD + \beta_7 DCFO_{i,t} * CFO_{i,t} * SD + \varepsilon \quad (7)$$

	β_0	β_1	β_2	β_3	β_4	β_5	β_6	$\boldsymbol{\beta_7}$
Coefficient	.0054	.0145	-.372	.188	.0189	.0176	.0180	.293
(t-statistic)	1.55	1.97**	-11.33***	1.97**	3.98***	1.64	0.42	2.55**
Adj. R^2	%15.64							
Obs.	16328							

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 2 Table II:

ACC is total accruals in year t lagged by the total assets at the beginning of year t. CFO is cash flow from operations for firm it in year t. DCFO is a Dummy variable set equal to 1 if CFO <0 and 0 otherwise. SD is anti-self-dealing index in Djankov et al. (2008) ranging from 0 (low protection) to 1(high protection).

Appendix 2 Table III Anti-self-dealing and value relevance

$MV_{it} = \beta_0 + \beta_1 BVPS_{it} + \beta_2 EPS_{it} + \beta_3 SD + \beta_4 SD * BVPS_{it} + \beta_5 SD * EPS_{it} + \varepsilon$ (8)						
	β_0	β_1	β_2	β_3	β_4	β_5
Coefficient	4.380	.866	3.994	-2.767	.0658	-2.392
(t-statistic)	6.59***	16.58***	3.98***	-3.17***	0.95	-1.34*
Adj. R^2	76.05%					
Obs.	16328					

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 2 Table III:

MV_{it} is market value per share three months after the fiscal year end. $BVPS_{it}$ is book value per share of firm i in year t. EPS_{it} is earnings per share of firm I in year t. SD is anti-self-dealing index in Djankov et al. (2008) ranging from 0 (low protection) to 1(high protection).

Appendix 2 Table IV The effect of investor protection on conservatism including control variables

Independent variables		Coefficient *t-value*
DCFO	β_1	-.0025 -0.28
CFO	β_2	-.3037 -14.46***
DCFO*CFO	β_3	.336 5.35***
INV	β_4	.0021 0.90
DCFO*INV	β_5	.0042 3.97***
CFO*INV	β_6	.0222 2.81**
DCFO*CFO*INV	β_7	**.0970** ***6.47******
LEV	β_8	-.0008 -2.01**
LEV*DCFO	β_9	-.0002 -0.45
LEV* CFO	β_{10}	.0005 0.27
LEV* DCFO*CFO	β_{11}	-.0046 -1.99**
SIZE	β_{12}	.0054 2.74**
SIZE*DCFO	β_{13}	.0108 4.60***
SIZE* CFO	β_{14}	-.0341 -2.96**
SIZE* DCFO*CFO	β_{15}	-.0588 -0.88
GROWTH	β_{16}	.0539 3.73***
GROWTH*DCFO	β_{17}	-.0024 -0.15
GROWTH* CFO	β_{18}	-.0640 -1.67*
GROWTH* DCFO*CFO	β_{19}	.0478 0.85
Constant	β_0	-.0248 -2.38**
Observations	16328	
Adj. R^2	% 22.62	
Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.		

Notes to Appendix 2 Table IV: ACC is total accruals in year t lagged by the total assets at the beginning of year t. CFO is cash flow from operations for firm it in year t. DCFO is a Dummy variable set equal to 1 if CFO <0 and 0 otherwise. Size is the natural logarithm of total assets for firm i in year t. Lev is the end of year total liabilities divided by end of year equity book Value for firm i in year t. Growth is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. INV is the investor protection computed by component principle analysis of six variables. These variables are: BIND is the board independence scores from the World Economic Forum (2008-2011). SEC is the enforcement of securities laws scores from the World Economic Forum (2008-2011). MIN is the protection of minority shareholders interest scores from the World Economic Forum (2008-2011). ENF is the enforcement of accounting & auditing standards scores from the World Economic Forum (2008-2011). JUD is the judicial independence scores from the World Economic Forum (2008-2011). MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as the share price times the number of shares outstanding.

Appendix 2 Table V The effect of enforcement on conservatism including control variables

Independent variables		Coefficient *t-value*
DCFO	β_1	-.1004 -3.45**
CFO	β_2	-.6798 -4.02***
DCFO*CFO	β_3	-2.015 -4.69***
ENF	β_4	.0048 1.10
DCFO*ENF	β_5	.0176 3.87***
CFO*ENF	β_6	.0671 2.19**
DCFO*CFO*ENF	β_7	**.4173** ***6.17******
LEV	β_8	-.0008 -2.00**
LEV*DCFO	β_9	-.0002 -0.46
LEV* CFO	β_{10}	.0008 0.40
LEV* DCFO*CFO	β_{11}	-.0044 -1.99**
SIZE	β_{12}	.0056 2.77**
SIZE*DCFO	β_{13}	.0102 4.01***
SIZE* CFO	β_{14}	-.0361 -3.05**
SIZE* DCFO*CFO	β_{15}	-.0653 -1.06
GROWTH	β_{16}	.0539 3.74***
GROWTH*DCFO	β_{17}	-.00218 -0.13
GROWTH* CFO	β_{18}	-.06127 -1.60
GROWTH* DCFO*CFO	β_{19}	.05410 0.95
Constant	β_0	-.0531 -3.00**
Observations	16328	
Adj. R^2	% 22.57	

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 2 Table V: ACC is total accruals in year t lagged by the total assets at the

beginning of year t. CFO is cash flow from operations for firm it in year t. DCFO is a Dummy variable set equal to 1 if CFO <0 and 0 otherwise. Size is the natural logarithm of total assets for firm i in year t. Lev is the end of year total liabilities divided by end of year equity book Value for firm i in year t. Growth is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. ENF is the enforcement of accounting & auditing standards scores from the World Economic Forum (2008-2011).

Appendix 2 Table VI The effect of capital market on conservatism including control variables

Independent variables		Coefficient *t-value*
DCFO	β_1	.00119 0.11
CFO	β_2	-.2972 -14.16***
DCFO*CFO	β_3	.4513 5.14***
MS	β_4	.00003 1.37
DCFO*MS	β_5	.00006 2.12**
CFO*MS	β_6	.00009 1.87**
DCFO*CFO*MS	β_7	**.0002** ***0.53***
LEV	β_8	-.0008 -1.73*
LEV*DCFO	β_9	-.00011 -0.20
LEV* CFO	β_{10}	.00133 0.63
LEV* DCFO*CFO	β_{11}	-.00332 -1.61
SIZE	β_{12}	.00609 3.27**
SIZE*DCFO	β_{13}	.00509 2.23**
SIZE* CFO	β_{14}	-.0388 -3.30**
SIZE* DCFO*CFO	β_{15}	-.1255 -1.46
GROWTH	β_{16}	.0533 3.73***
GROWTH*DCFO	β_{17}	-.00072 -0.04
GROWTH* CFO	β_{18}	-.05911 -1.66*
GROWTH* DCFO*CFO	β_{19}	.07104 1.13
Constant	β_0	-.0322 -3.22**
Observations	16328	
Adj. R^2	% 21.33	

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.

Notes to Appendix 2 Table VI: ACC is total accruals in year t lagged by the total assets at the beginning of year t. CFO is cash flow from operations for firm it in year t. DCFO is a Dummy

variable set equal to 1 if CFO <0 and 0 otherwise. SIZE is the natural logarithm of total assets for firm i in year t. Lev is the end of year total liabilities divided by end of year equity book Value for firm i in year t. GROWTH is the sales growth rate, defined as the sales in year t minus sales in year t-1 and scaled by sales in year t-1. MS is the market capitalisation of listed companies (% of GDP) from the World Bank (2007-2010), defined as is the share price times the number of shares outstanding.

Appendix 2 Table VII The pooled regression of value relevance

$$MV_{it} = \beta_0 + \beta_1 BVPS_{it} + \beta_2 EPS_{it} + \varepsilon$$

	β_0	β_1	β_2
Coefficient	2.503	.909	2.916
(t-statistic)	13.20***	33.20***	4.37***
Observations	16328		
Adj. R^2	%75.88		

Clustered by firm and year. *** p<0.01, ** p<0.05, * p<0.1.
Notes to Appendix 2 Table VII: MV_{it} is market value per share three months after the fiscal year end. $BVPS_{it}$ is book value per share of firm i in year t. EPS_{it} is earnings per share of firm i in year t.