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AUDIT STYLE AND FINANCIAL STATEMENT COMPARABILITY

The impact of audit style and IFRS on financial statement comparability: study in the United States foreign issuers.

Master Thesis

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ABSTRACT

Comparability has been the focus of accounting practitioners since decades, especially subsequent to the introduction of mandatory International Financial Reporting System (IFRS) in the European Union, which is followed by approximately 100 other countries. Because of this, the is greater demand for higher financial statement comparability. Francis et al. (2014) conducted a study to examine whether in-house working rules by audit firms affect financial statement comparability. The in-house working rules are defined as audit style. They find, by examining the closeness of accruals between paired-companies that are audited by the same big4 audit firms, that audit style has impact on financial statement comparability.

Furthermore, in respect of IFRS adoption by most of the countries around the world, the development of single-set, globally accepted accounting standards becomes important for investors and stakeholders. According to Van Os (2015), auditor induced comparability is higher in the U.K. setting, which uses principles-based accounting standards. Moreover, Brochet et al. (2013) found that mandatory IFRS reduces the private information from insider purchase and increases the public information provided by a company, through enhancement of comparability.

Against this background, this thesis is conducted to examine whether companies that are audited by the same big4 audit firm and using IFRS, are more comparable than companies that are audited by different big4 audit firms, which do not use IFRS. This thesis follows the closeness of accruals by Francis et al. (2014). The sample consists of foreign issuers registered in the U.S., due to the voluntary adoption permitted by SEC in 2007.

Keywords: Audit style; Comparability; Principles-based accounting standards; IFRS

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-So do not fear, for I am with you; do not be dismayed, for I am your God. I will strengthen you and help you; I will uphold you with my righteous right hand.- Isaiah 41:10

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Chapter 1: Introduction

1.1. Introduction

This thesis examines whether audit style affects financial statement comparability, under principles-based standards. Audit style is defined as the set of internal working rules of audit firms (Francis, Pinnuck, & Watanabe, 2014). Francis et al. (2014) examined the relation between audit style and financial statement comparability and find that two pairs of companies which were audited by the same big4[1] audit firm, tend to have higher financial statement comparability, than firm-pairs of companies which were audited by different big4 audit firms. Financial statement comparability in this thesis is not synonymous with uniformity. While uniformity requires firms to use the same accounting standards (Defond, Hu, Hung, & Li, 2011), comparability is reporting similar accounting numbers of financial statements under similar economic circumstances and reporting different accounting numbers under different economic circumstances (Barth, Landsman, Lang, & Williams, 2012; Yip & Young, 2012). According to Defond et al. (2011), increase in uniformity leads to increased comparability.

Besides being mistaken for uniformity, comparability is also misclassified as consistency. Even though in the conceptual framework, both comparability and consistency are mentioned, they are subject to different concepts. According to the FASB (FASB, 2010, p. 19), "Consistency, although related to comparability, is not the same. Consistency refers to the use of the same methods for the same items, either from period to period within a reporting entity or in a single period across entities. Comparability is the goal; consistency helps to achieve that goal."

In this thesis, financial statement comparability refers to the closeness of earnings reported by each firm, in line with the standards applied within the firm (Francis et al., 2014). This thesis uses absolute differences of total accruals and discretionary accruals as the proxy of the closeness of earnings, following previous studies (Francis et al., 2014; Van Os, 2015).

Since the last several years, many countries worldwide have adopted IFRS as their financial accounting standards (IASB, 2015). The European Union countries, including the United Kingdom, adopted IFRS mandatorily since 2005, while some Asian countries (Indonesia, India, Japan, China, and Korea), Australia, Russia, South Africa and Canada started

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[1] Per 2015, the big4 audit firms are PwC, Delloitte, EY and KPMG, based on economia.icaew.com

to implement IFRS since 2010 (IASB, 2015). Besides these, there are many other countries with a total up to 143 jurisdictions, including G20 countries, who have similarly adopted IFRS (IASPLUS, 2012; PwC, 2016). Following those countries, in 2007, US Securities and Exchange Commission (SEC) has permitted but not required the foreign issuers in the US to apply the IFRS without reconciliation to U.S. GAAP (IFRS, 2017). This decision was made to support the application of IFRS as a global accounting standard.

Several studies (Agoglia, Doupnik, & Tsakumis, 2011; Barth, Lang, & Williams, 2013; Brochet, Jagolinzer, & Riedl, 2013; Cascino & Gassen, 2015; Daske, Hail, Leuz, & Verdi, 2008; De Franco, Kothari, & Verdi, 2011; ICAEW, 2015; Jamal et al., 2010; Joos & Leung, 2013) examined the impact of IFRS on capital markets, as well as its costs and benefits for investors, debtors, auditors and other stakeholders and whether it was through improvement of comparability (Armstrong, Barth, Jagolinzer, & Riedl, 2010; Atwood, Drake, Myers, & Myers, 2011; Barth, Landsman, & Lang, 2008; Barth et al., 2012; Brochet et al., 2013; De Franco et al., 2011; Defond et al., 2011; Lang et al., 2010). Other studies also observed the benefits of IFRS and its association with comparability, in U.S. based samples, European cross-country samples, or comparing either between European countries or between U.S. and other countries (Brochet et al., 2013; Cascino & Gassen, 2015; De Franco et al., 2011; Hail, Leuz, & Wysocki, 2010a, 2010b, 2009; Liao, Sellhorn, & Skaife, 2012). Hail et al. (2010a, 2010b, 2009) commented and examined the potential economic consequences as well as politics and policy turbulence that were caused by implementing IFRS within U.S. firms.

Although IFRS is expected to increase comparability between firms and provide more benefits for U.S. investors and capital market, the comparability derived from adopting IFRS would be limited, as the U.S. GAAP establishes a set of high-quality standards, which are unlikely to be significantly affected by IFRS. Moreover, there would be some unavoidable change and competition in accounting process and standards-setting between the U.S. authorities and IASB (Hail et al., 2010a, 2009).

Comparability has been becoming the center of interest in the stream of studies on IFRS (Barth et al., 2012; Brochet et al., 2013; Daske et al., 2008; Hail et al., 2010a, 2010b, 2009). Unfortunately, their main focus was to observe cost and benefit of IFRS and comparability, directly or indirectly, for investors and capital market issues. For example, Hail et al. (2010a, 2010b, 2009) conducted three different studies that mainly discussed the potential possibilities

of IFRS adoption in the U.S. and its impact on accounting standards in the U.S. as a whole and its political and policy environment.

While the main focus in accounting research is on the global IFRS adoption and its impact on economic agents, particularly investors, there have been limited studies that focused on the role of audit under IFRS and its effect on financial statements (Francis et al., 2014; Jamal et al., 2010; Marden & Brackney, 2009; Sin, Moroney, & Strydom, 2015; Van Os, 2015). Francis et al. (2014) particularly examined financial statements comparability between a pair of firms audited by the same big4 audit firm, and Van Os (2015) followed the similar approach, though it was conducted by comparing the U.S. and U.K. settings.

Following Francis et al. (2014) and Van Os (2015), this thesis aims to examine the role of the auditor as an economic agent, in producing financial statement comparability. Further, this thesis will examine whether the adoption of IFRS, along with the audit style audit firms, affects the financial statement comparability between firm-pairs, as the paper of Kothari et al. (2010) states that it is better for auditors to build a set of working rules out of principles.

1.2. Research Question

Comparability helps users to identify the differences and similarities among items in financial reporting (FASB and IASB, 2010). It requires consistency of accounting rules and methods used for similar items. On the other hand, as a qualitative characteristic of financial information, comparability is an objective and consistency is the instrument to attain the objective[2]. As explained in the previous section, uniformity is when firms are required to use one common accounting standards, whereas consistency is when firms used the same accounting standards or a firm use the same accounting standards overtime.

Comparability is important because it is the basic reason for the development of accounting standards (FASB, 1980). Moreover, comparability of financial statement seems to help not only investors but also other stakeholders such as auditors, debtors, investors, and standard-setters. By enhancing comparability, the quality of financial information increases and the cost to acquire the information decreases (Agoglia et al., 2011; Barth, 2015; Barth et al., 2013; Brochet et al., 2013; Campbell & Yeung, 2012; Cascino & Gassen, 2015; De Franco

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[2]"Consistency, although related to comparability, is not the same. Consistency refers to the use of the same methods for the same items, either from period to period within a reporting entity or in a single period accross entities. Comparability is the goal, consistency helps to achieve that goal" (FASB 2010).

et al., 2011; Joos & Leung, 2013; Kim, Li, Lu, & Yu, 2016; Kim, Kraft, & Ryan, 2013; Sin et al., 2015; Yip & Young, 2012)

While many studies focus on the costs and benefits of financial and accounting comparability, there are a limited number of studies that identify the importance of an economic agent such as the auditor. The auditor has direct access to financial statements and earnings (Francis et al., 2014), due to which he is anticipated to affect the financial statement comparability. Moreover, auditors need the comparability to provide more accurate and efficient assessments on the client's information (Zhang, 2012).

Francis et al. (2014) provide evidence that two companies audited by the same audit firm have more comparable financial statements, than two companies audited by different audit firms. Thus, audit style affects the comparability of financial statements. Moreover, Kothari et al. (2010) find evidence that the auditor's work is expected to be more cost effective, when they are working based not only on principles but also rules. Furthermore, Van Os (2015) examined the influence of audit style on comparability, when the accounting standards used by a company are more principles-based rather than rules-based. The study compared UK companies and US Companies, where the UK GAAP is more similar to IFRS. Based on these studies, it is important to look more at whether audit style and IFRS enhance the financial statement comparability. Thus, following these papers, a research question to this thesis will be:

Are companies that are audited by the big4 audit firms and use IFRS as their accounting standards more comparable than companies which are not audited by the same big4 audit firms and use IFRS?

To answer the research question, this study uses an approach similar to those of Francis et al. (2014) and Van Os (2015) that use closeness of accruals to define the financial statement comparability among companies. This paper also uses the big4 audit firms, to examine the audit style induced in the financial statement comparability. Additionally, to test the assumption that companies under principles-based accounting standards should be more comparable than those under rules-based principles-based standards, it uses IFRS to examine the interaction of the big4 audit firms and IFRS, in the regression model.

Since this study follows the concept of "closeness of accruals" by Francis et al. (2014) and Van Os (2015), it is expected that the absolute difference of accruals would be lower for

foreign companies that are audited by the big4 audit firms and use IFRS. The lower the difference, the more comparable would the companies' financial statements be.

The result is not in line with that predicted by this study, which anticipated that when paired companies are audited by the same big4 audit firm and use IFRS, they would have lower difference in accruals, compared to paired companies audited by a different big4 audit firm and not using IFRS. However, audit style and IFRS, without regard to the interaction term, statistically affect financial statement comparability. This means that paired companies audited by same big4 audit firms are more comparable, than paired companies audited by different big4 audit firms. Moreover, paired companies that use IFRS are more comparable than paired-companies that do not use IFRS.

1.3. Relevance and contribution

This study contributes to the stream of audit style literature, which is still limited in number. Following the findings of Francis et al. (2014) and Van Os (2015), this thesis provides more evidence about the impact of audit style on financial statement comparability.

Furthermore, this thesis also contributes to the stream of accounting standards literature, by providing evidence that principles-based accounting standards enhance the comparability of financial statements and joins prior literatures (Agoglia et al., 2011; Brochet et al., 2013; Cascino & Gassen, 2015), to disseminate knowledge regarding the effect of IFRS implementation in companies. Moreover, Van Os (2015)'s study is followed to examine whether the induced audit style results in greater financial statement comparability under principles-based accounting standards, compared to rules-based ones.

Moreover, to provide an answer to the research question of this thesis, it would be relevant to provide more insights about the auditor's role relating to better financial information and whether the adoption of IFRS influences the audit style of an audit firm, in order to obtain comparability of financial statements. As February 2010[3], SEC made a public statement regarding its commitment to support international single-standards and to evaluate IFRS adoption within the US. Before the public statement, in 2007, SEC had already permitted the foreign issuers in US to provide their financial statement in IFRS.

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[3] In February 24th 2010, SEC published Commission Statement in Support of Convergence and Global Accounting Standards in order to emphasize their commitment to consider the adoption of IFRS in United States.

Following this voluntary adoption by foreign issuers in US, audit firms were required to develop procedures incorporated with both US GAAP and IFRS. Thus, this thesis would provide more information to the public and the stakeholders, as to whether the audit style derived from implementation of auditor's professional judgment on accounting standards makes the financial statement more comparable or not. By this, the public could review their trust for auditors and audit firms. The findings of this study would also provide insight for auditors, audit firms, and standard-setters to develop better audit procedures and audit standards.

The sample for this thesis is comprised of foreign issuers listed in the U.S. from 2009 to 2016. Since the voluntary adoption was effectively applied in 2008, which coincided with the huge market crisis in the U.S., the years 2009-2016 are better ones for study. Additionally, before voluntary adoption, foreign issuers were required to report reconciliation with U.S. GAAP.

Hence, because of the samples in US, this study also contributes more information for economic institutions in the U.S., such as SEC and FASB, to review whether IFRS would be more beneficial for US companies, regarding the aspects of comparability and audit style. Additionally, the result also provides insights to the U.S. authorities regarding the single-set globally accepted accounting standards, since there is still no official decision regarding the convergence or otherwise, between IFRS and U.S. GAAP.

1.4. Structure

The remainder of this thesis is structured as follows. The second chapter discusses the theories and concepts underlying the research, dealing with theories related to comparability and audit. The next part of the second chapter discusses the relevant authorities such as Securities and Exchange Commission (SEC), Financial Accounting Standards Board (FASB), American Institute of Certified Public Accountants (AICPA), and the Public Company Accounting Oversight Board (PCAOB). This part discusses the responsibility of each institution-related financial reporting system and audit regulation. It also discusses the current issues that the institutions are involved in.

The third chapter provides reference to prior literature on accounting standards and auditing literature. In this chapter, previous studies related to hypotheses development in the same chapter are elaborated. It is discussed as to how IFRS or principles-based accounting

standards are expected to produce more comparable accounting information compared to rules-based accounting standards. Next, previous studies related to audit style vis-à-vis financial statement comparability are discussed. The last part of this chapter is hypotheses development, to answer the research question mentioned in Chapter 1, based on prior literature review in the previous sections.

The next chapter discusses the regression model used to test the hypotheses and elaborates the variables used and their proxies, along with the theoretical reasons behind the same. The last section of the chapter discusses the sample used in this thesis and lists the steps used to collect and process the data.

Next, Chapter 5 discusses the descriptive statistics of the research data, the Ordinary Least Square (OLS) assumptions and main findings, apart from elaborating the results and their comparison with prior literature, as well as how the results answer the research questions and examine the hypotheses. This chapter contains tables showing the regression and OLS assumptions results.

Finally, the last chapter elaborates the conclusions derived from the regression results. It also provides an overview of several papers related to the findings, apart from discussing the limitation of this research and the possibility of further research.

Chapter 2: Theoretical Concept

2.1. Comparability of Financial Statement

2.1.1. Definition of Comparability

The term comparability has been mentioned in many literatures as one of the important aspects in producing a financial statement. The Financial Statement of a company is one of the sources of information about a company's financial status that could affect the investment behavior. The information in the financial statements will be useful to its users, when it can be compared with information relating to the financial statement of another entity in the same industry (FASB, 2010; IASB, 2010). The information in the financial statement must also be comparable within the same company, from time to time (FASB, 2010; IASB, 2010).

Comparability is a qualitative characteristic of financial statements that enhances the usefulness of information contained therein. Yip & Young (2012) and Barth et al. (2012) describe comparability as companies' financial statements reporting similar accounting numbers under similar economic circumstances, and different accounting numbers when the companies are in different economic circumstances.

There has been a surprisingly significant increase of comparability across countries since 2005, because around 8000 companies listed in the European Union (EU) prepare their financial statements in IFRS (Zeff, 2007).

The fact that comparability increased because most of countries use one accounting standards (i.e. EU countries use IFRS) makes it sound as if comparability is the same as uniformity, but it is not. Comparability is related to uniformity, but both concepts have different definitions. Based on FASB (2010), comparability helps users to identify and understand the similarities and differences from items or information in the financial statements, while uniformity is part of comparability that needs to be ensured, to increase the comparability of the financial statements. Uniformity means that a company uses consistently the same accounting standards over time (Defond et al., 2011). Defond et al. (2011) state that comparability improves as a result of increased uniformity.

Francis et al. (2014) used the concept of the closeness of accruals to examine the comparability, as the result of in-house working rules of audit firms, to review their client's

financial statement. Hence, comparability could be defined as the similarity of accounting earnings and numbers between two companies in the same economic circumstances.

2.1.2. Benefit of Financial Statement Comparability

For decades, many studies have examined how financial statement comparability could be beneficial for companies and investors. They agree that financial statement comparability decreases the cost of acquiring information, reduces the information asymmetry and thus increases the quality of information (Campbell & Yeung, 2012; Daske et al., 2008; De Franco et al., 2011; Fang, Li, Xin, & Zhang, 2016; Kim et al., 2016; Kim et al., 2013). Information plays important roles in comparability, because investors and other stakeholders need it (i.e. information) to come up with decision regarding the company. This information comprises various explanations, such as accounting numbers, market share information, firms' liquidity forecast or accounting earning and accruals of the firms.

ICAEW (2015) mentioned that there are two streams of benefits produced by comparability: (1) decrease in the cost of obtaining information and understanding financial reporting, (2) increase in transparency. If companies are subject to similar systems, it would be easier for investors to understand the information provided, by comparing them. Thus, it reduces cost and increases the likelihood of investment by investors, including cross-border investment (ICAEW, 2015). Moreover, investors tend to review a company using information of another company in the same or similar industry. This creates increasing in the needs of comparability among firms. Hence, in this particular way, transparency is also achieved (ICAEW, 2015).

Besides these, De Franco et al. (2011) also examined the benefits gained from financial statement comparability. De Franco et al. (2011) suggested that financial statement comparability helps analysts to produce more effective and accurate forecasts, by reducing the cost of acquiring information and enhancing the quality of that information. Recent studies confirm the results of De Franco et al. (2011) that financial statement comparability helps to reduce information asymmetry in the debt market (Fang et al., 2016), alleviates investor's apprehensions regarding crash risks (Kim et al., 2016), and reduces the market's doubt on credit risk (Kim et al., 2013).

Moreover, the FASB also states that comparability of information is necessary to assess the lending options or investment prospects, because the investors or creditors need to compare

a firm's financial reporting numbers and standards with another, in the same underlying economic circumstances and industry (FASB, 1980).

Having regard to the above, it can be concluded that comparability enhances the quality of information needed by investors, creditors, or other stakeholders to make decisions.

2.2. Global Accounting Standards: Principles-based versus Rules-based

As mentioned before, information plays an important role in increasing comparability, which is important in the preparation of financial statements of companies. Such information is commonly used to make decisions about whether investment, especially international investment, should be made or not. In recent times, stakeholders such as researchers and regulators are interested in finding ways to develop accounting standards that prevail globally.

Global accounting standards are expected to afford more benefits for investors and other stakeholders. According to Tarca (2012), global accounting standards have higher potential to improve comparability and transparency of financial information. This way, the cost of preparing financial statements would be reduced and higher quality information could be achieved. Thus, stakeholders could make a better and more informed decision about the financial matters of the company.

Barth (2015) also confirmed that a single set of accounting standards apparently enables the production of higher quality financial reporting and that availability of higher financial information leads to more informed investment.

The current phenomenon of economic significance spreading across countries is the global implementation of IFRS by companies. European Union, Australia, South Africa and most of the Asian countries have already moved toward IFRS accounting standards, which appears to be a process towards global implementation of a single set of accounting standards. Since the adoption of IFRS commenced in 2005, most of the academic researchers and policy makers attempted to examine the cost and benefit of both principles-based (i.e. IFRS) and rules-based (U.S. GAAP) systems, before deciding which one should be applied as single set of accounting standards.

2.2.1. Principles-based and Rules-based standards

There are two globally well-recognized streams of accounting standards: principles-based and rules-based. IFRS is known as more of a principles-based system, and the U.S. GAAP is considered more rules-based standard. According to the AICPA, the distinctive feature of principles-based standards is a possibility of altered interpretations for similar transactions that cause more disclosures in the financial statement[4].

In 2005, most of the companies in Europe were required to implement IFRS to achieve the goal of harmonization and transparency in financial statement numbers. This IFRS is believed to be the way to create more comparable information for investors and other stakeholders that would be needed by them for investment decision. More comparable information is expected to reduce the cost of capital (Devalle, Onali, & Magarini, 2010).

According to Forgeas (2008), the main difference between principles-based and rules-based standards is the approach of the two to estimate accounting treatment. Under principles-based standards, the focus is on the review of the facts pattern, whereas under the rules-based system, the focus is on empirical results (Forgeas, 2008).

Rules-based standards are basically a very detailed set of rules that provide guidance in the preparation of financial statements. According to Bagshaw (2006), although more market participants demand more principles-based standards, behavior of creating more rules is seems undetachable. The reason is because it is a natural habit to follow rules (Bagshaw, 2006). Once there is a novel economic situation, it is habitual to set new rules, instead of following principles to solve the problems that arise (Bagshaw, 2006).

Naturally, a rules-based standard requires very comprehensive guidance and should state a very clear outline to prevent differing judgements on financial reporting, making it more complex for the accountants in preparing the financial statements and for the auditors to assess whether the results of the rules are actually consistent with the objectives of the standard or not (FASB, 2002).

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[4]According to Forgeas, an insider CPA of AICPA-in an article published by AICPA in 2008, the diverse interpretations for similar transactions within financial statements caused second guessing and uncertainty. Thus, such extensive disclosures are needed in the financial statement (Forgeas, 2008).

Moreover, many believe that too many rules preclude professional judgement, which professional judgement is needed to enhance the assessment of financial information and to ensure that it reflects the true economic situation. Thus, the principles-based standard has been seen as the solution to cover the weakness of rules-based standards and is expected to increase comparability across companies (FASB, 2002; SEC, 2003; Weil, 2002).

Principles-based standards are believed to lead the way to a better financial reporting through improved transparency and comparability, and to have enabled IFRS adoption and improved awareness of recent accounting and auditing matters (Agoglia et al., 2011; FASB, 2002; Jamal et al., 2010; SEC, 2003). Unfortunately, this assumption still needs to be tested empirically, since there is no evidence yet to prove this belief (Jamal et al., 2010).

According to Weil (2002), too specific rules could lead to a " 'show me where it says I can't' attitude", creating a situation where the auditor cannot say "No" to an aggressive management. This is why Weil (2002) requests the FASB to set new rules, so that auditors can resist unreasonable demands of the management. The cycle of challenging and setting new rules between aggressive managements and auditors or SEC keeps recurring until managements believe that they could treat any accounting transaction the way they want to, as long as there is no rule against it (Weil, 2002).

Moreover, Agoglia et al. (2011) find that under principles-based standards, management's aggressiveness in financial reporting decreases and theoretically, the need for professional judgement increases. Hence, the reporting of financial statements could be consistent with the standards applied.

2.3. Agency Theory and Stewardships Theory

2.3.1. Agency theory and the role of audit

Agency theory has been linked to many issues for decades, also in the accounting and audit literature. Agency theory basically explains the relationship between one or more parties (i.e. principal) and one more other parties (i.e. agent) who are bound by an engagement.

Agency is a relationship between the principal and the agent, who are bound by an agreement where the principal delivers the authority to the agent to run the organization or business and to perform decision making on the principal's behalf (Eisenhardt, 1989; ICAEW, 2005; Jensen & Meckling, 1976).

Principal and agent have their own interests, which leads to the assumption that within the relationship there would be a conflict- that is usually mentioned as agency costs. Agency theory in general talks about agency costs, which is an asymmetry between the principal's trust and the agent's interest and motives.

According to Jensen and Meckling (1976), the agency cost would be the outflows spent by principal and agent to minimize the gap between principal's trust and agent's personal intentions or motivations. Purposively, the principal would entrust the reliability of agent's report and review the work of the agent to a neutral third party. With this kind of asymmetry, the role of audit is needed by both the principal and the agent.

Moreover, ICAEW (2005) states that audit is one out of the several options that could be used to solve the information asymmetry caused by the absence of the principal's trust and the agent's self-interests. Audit offers an independent reviewing and controlling role, to ensure that the financial information provided by agent is reliable and valid (ICAEW, 2005).

2.3.2. Stewardship Theory and the role of audit

While the agency theory emphasizes that the agents work based on their individual goals without considering their responsibility as agents towards the investors, the stewardship theory says otherwise. In the stewardship theory, agents (executives) are willing to be trustworthy and to work based on companies' objectives and incentives (Donaldson & Davis, 1991).

Stewardship theory has been seen as an alternative to the agency theory. The basic difference between the theories is their focus on human behavior (Davis, Schoorman, & Donaldson, 1997). According to Davis et al. (1997), the agent's behavior is depicted as that of a self-serving individual under the agency theory, whereas the stewardship theory portrays the agent's behavior as that of a self-actualizing man. A table of differences between the Agency Theory and Stewardship Theory (Davis et al., 1997, p. 37) is furnished below:

Figure 1: comparison between Agency Theory and Stewardship Theory (Davis et al., 1997, p. 37)

Comparison of Agency Theory and Stewardship Theory

	Agency Theory	Stewardship Theory
Model of Man	Economic man	Self-actualizing man
Behavior	Self-serving	Collective serving
Psychological Mechanisms		
Motivation	Lower order/economic needs (physiological, security, economic)	Higher order needs (growth, achievement, self-actualization)
	Extrinsic	Intrinsic
Social Comparison	Other managers	Principal
Identification	Low value commitment	High value commitment
Power	Institutional (legitimate, coercive, reward)	Personal (expert, referent)
Situational Mechanisms		
Management Philosophy	Conrol oriented	Involvement oriented
Risk orientation	Control mechanisms	Trust
Time frame	Short term	Long Term
Objective	Cost control	Performance Enhancement
Cultural Differences	Individualism	Collectivism
	High power distance	Low power distance

According to the agency theory, there is information asymmetry between agents and principals, because principals could not trust agents, who have opportunistic and personal goals. According to the stewardship theory, agents (i.e. managements) act as stewards and display a trustworthy behavior, because agents believe that he or she must work according to the companies' and investors' objectives. Thus, agents need an auditor to work on their behalf, to provide assurance to the principals that their functioning was aligned with the principals' objectives (Williams, 1988).

2.4. Institutional settings

2.4.1. Financial reporting system regulation

There are two institutions that are responsible for financial reporting and accounting regulation and enforcement in the U.S.: The Financial Accounting Standards Board (FASB) and the Securities and Exchange Commission (SEC). This section elaborates the role of FASB and SEC, in relation to the financial accounting and reporting system in the United States.

2.4.1.1. Financial Accounting Standards Board (FASB)

FASB is a non-profit and independent institution that is vested with the responsibility of establishing financial accounting and reporting standards for public and private companies, and non-profit organizations in the United States (FASB, 2017). FASB has been focusing on its role of providing high quality information to investors and other financial statement-users (FASB, 2017).

According to FASB, greater comparability is aligned with FASB's mission. Greater comparability, as FASB's believes, can be achieved by reducing differences among accounting standards used globally and enhancing their quality. Moreover, the institution is also concerned with investors' interests in cross-border investment, leading to agreement of joint project with International Accounting Standards Board (IASB). The main focus of the joint project is to develop single set of accounting standards to be used in the global capital market (FASB News Release, 2002).

Since 2002, FASB and IASB joint project have developed and completed several projects related to global accounting standards, including the voluntary adoption of IFRS without reconciliation by U.S. foreign issuers in 2007, and the latest completed project was standards update No.2014-09 about revenue recognition from contracts with customers in 2014 (FASB, 2014; SEC, 2007).

Although IFRS has been actively reviewed by FASB and SEC through published articles and speeches delivered by both institutions, it is still unlikely for U.S. issuers to adopt IFRS in the near future (Bogopolsky, 2015; Burkholder, 2016; Irvine, 2012; Tysiac, 2013, 2016).

2.4.1.2. U.S. Securities and Exchange Commissions (SEC)

SEC is an U.S. government agency established in 1934 by an Act of Congress. The main responsibility of SEC is to set standards and regulation for U.S. securities and stock markets, and to reinforce securities laws in the states. SEC has been entrusted with and supports the effort to set qualified accounting standards around the world.

As mentioned in SEC's official site: "the mission of the U.S. Securities and Exchange Commission is to protect investors, maintain fair, orderly, and efficient markets and facilitate capital information."; thus, SEC's priority is to protect the interest of investors and the capital market, particularly in the United States.

By 2001, SEC's reputation was at stake. Several accounting scandals erupted during 2001-2005, which were perpetrated more by companies under U.S. GAAP, than by those under IFRS (Nisbett & Sheikh, 2007). According to them, the extent of misreporting-generated bankruptcy of companies under U.S. GAAP, is more than those under IFRS. Moreover, IFRS has been mandatorily adopted by the European Union and followed by other countries

worldwide, later on. Thus, it caused inaccessible of cross-border financial information and investment by investors in the U.S. Because U.S. firms use U.S. GAAP, while most of countries worldwide adopt IFRS.

Following comparability concerns, SEC expressed interest in reviewing the possibility of IFRS convergence with U.S. GAAP, through the Norwalk Agreement,[5] which has been supported by many accounting professions such as CFOs, auditors, and accounting institutions (Gill, 2007). The Norwalk Agreement later became the root of joint projects between FASB and IASB that have been tasked by SEC to develop high quality global accounting standards.

By the end of 2007, the SEC agreed to accept the rules to allow the foreign issuers listed in the U.S. to prepare their financial statement in accordance with IFRS, without any reconciliation with U.S. GAAP. This effectively started in 2008 (SEC, 2007). According to SEC (2007), by allowing the foreign issuers use IFRS in their financial statement without reconciliation with U.S. GAAP, SEC could ascertain the development of single-set of high quality, globally-accepted accounting standards, which has been the objective of accounting standard-setters and accounting practitioners for years (SEC, 2007)

Unfortunately, since 2009, SEC and FASB seemed to have lost interest in IFRS (Bogopolsky, 2015), until in 2012, SEC staff announced the IFRS work plan final report that in general mentioned the delay in transitioning to IFRS and that U.S. authorities needed more time to assess whether transitioning to IFRS would be the best way to protect the U.S. securities market and investors (SEC, 2012).

However, SEC and FASB did not clearly state how and when exactly they would make a decision regarding the transition to IFRS. SEC claimed that they remain supportive to developing a single-set of globally-accepted accounting standards, since it would bring more benefits to investors and the capital market (White, 2017).

Although the convergence between U.S. GAAP and IFRS is not currently on the priority list of SEC nor FASB, many institutions and accounting practitioners have expressed their frustration at SEC's delayed decisions relating to IFRS and their support to the urgency and importance of transitioning to IFRS in the U.S. capital markets (Bogopolsky, 2015; Irvine, 2012; Jamal et al., 2010; KPMG, 2017; Tysiac, 2013, 2016).

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[5] Norwalk Agreement is the joint meeting between IASB and FASB in Norwalk, Connecticut, USA in September 18, 2002.

2.4.2. Audit Regulation

There are two institutions in the United States who are responsible for audit regulation and audit professions: Public Company Accounting Oversight Board (PCAOB) and American Institute of Certified Public Accountants (AICPA).

The Public Company Accounting Oversight Board (PCAOB) is a non-profit organization created by the Sarbanes-Oxley Act of 2002, which moved the standard-setters of auditing from being a self-regulated organization to a more independent organization. PCAOB is also a result of the failure of AICPA to become an oversight board for auditors of public companies (Gunny & Zhang, 2013), that led to accounting and auditing scandals such as Enron and Worldcom (Harris, 2014). Thus, with the intention of restoring public trust in auditing firms and enhance audit quality, SEC decided to form PCAOB to evaluate public companies' financial statement and obedience to U.S. rules and regulations (Gunny & Zhang, 2013).

AICPA is responsible for setting auditing standards through Auditing Standards Board (ASB) for non-issuers in the U.S. (AICPA, 2017), while PCAOB takes the responsibility of overseeing auditing standards for issuers and implementing auditing standards that have been advanced by ASB or other audit institutions, and also certify that the issuers listed in the SEC comply with the audit regulations enforced by PCAOB (Cullinan, Earley, & Roush, 2013; Gunny & Zhang, 2013; PCAOB, 2017a).

The accounting scandals of several renowned companies lead to the change of standard-setters and their regulations. AICPA used to conduct a peer review once in 3 years, both for public company and non-public company auditors. In the U.S. Congress in 2002, the peer review by AICPA was considered unsuccessful in overseeing audit regulation, especially for public company auditors (Gunny & Zhang, 2013). PCAOB has four main concerns, such as registration, inspections, standard settings and enforcement (Gunny & Zhang, 2013). There are two inspections of PCAOB: annual and triennial. Annual inspection is addressed to audit firms that offer audit services to more than 100 public companies, and those serving less than 100 public companies go in for triennial inspection (PCAOB, 2017b). Besides the issuers' auditors (i.e. U.S. issuers and foreign issuers who are registered with PCAOB), the PCAOB also inspects audit firms whose clients are securities brokers and dealers, to evaluate whether they report in accordance with the rules concerned with SEC's act and regulations (PCAOB, 2017b).

According to several studies (Cullinan et al., 2013; EY & TAPESTRYNETWORKS, 2015; Gunny & Zhang, 2013; ICAEW, 2009), the transformation from a self-regulation regime to independent regulation of audit oversight board affects the audit practice (e.g. audit approaches, audit standards, auditor reporting and the judgement used by auditors). Moreover, the increasing implementation of IFRS globally caused more difficult standards, thus leading to more comprehensive professional judgement by the auditors (ICAEW, 2009). This is because auditing firms and auditors should develop their approaches based on standards applied.

In the U.S. particularly, the PCAOB's inspection is expected to increase audit quality, because this institution has extraordinary access and control over confidential files of the clients, during the inspection (Gunny & Zhang, 2013). Moreover, according to Gunny & Zhang (2013), PCAOB's inspection division has enough qualified resources. The inspection itself consists of several processes and one of them is reviewing the auditor's quality control system (Aobdia, 2016; Gunny & Zhang, 2013), which consists of procedure development, auditor's training and audit firm's compliance with independence rules and standards (Aobdia, 2016; Gunny & Zhang, 2013).

Moreover, PCAOB propose a portfolio called audit quality indicators (AQI). These AQI would be possibly used as indicators to review the auditing process and enhance audit quality. PCAOB focuses on three parts of AQI: audit professionals, audit process and audit results (PCAOB, 2015). The category of audit process is related to audit methodologies and audit procedures.

In order to fulfill the PCAOB's AQI and to pass PCAOB inspection regarding audit quality, audit firms should develop their procedures and audit tools in line with PCAOB regulation. Hence, according to Gunny & Zhang (2013), this way, higher audit quality could be achieved.

According to Francis et al. (2014), audit style represents the in-house working rules used by audit firms to conduct audit process for their clientele. This means that the audit style should be in accordance with PCAOB regulations. Since the PCAOB regulation applies to U.S. issuers and foreign issuers, it means that the audit style is supposed to be affected by either IFRS or U.S. GAAP, depending on the clientele of the audit firms.

2.4.3. Audit standard and IFRS

Auditing standards are an outcome from the need of the auditor's role, as between agents and the principal (ICAEW, 2005). It is also a vital part of audit toolkits (ICAEW, 2006). According to ICAEW (2006), auditing standards are needed to perform audit. The auditing process cannot be executed without implementing standards within the audit procedures beforehand. Since most of the time, outcome of audit is publicly declared (i.e. the audited financial statement), the other stakeholders besides shareholders, become principals who demand qualified yet independent auditors (ICAEW, 2005). Hence, the ability to provide such global and principles-based auditing standards is needed (ICAEW, 2005, 2006).

According to Francis et al. (2014), there are such working rules provided by each audit firm to perform the audit process that should comply with Generally Accepted Audit Standards (GAAS). Francis et al. (2014) termed these in-house working rules as audit style. Each audit firm attempts to develop such audit style that conforms to applicable rules of their clients, which usually differentiates their quality from that of other audit firms (Bell, Marrs, Solomon, & Thomas, 1997; Cushing & Loebbecke, 1986; Kaplan, Menon, & Williams, 1990).

Furthermore, there are auditing standards such as AU 312/AU 326[6] of AICPA and PCAOB's Auditing Standards No.15[7]that drive auditors to attain qualified audit procedures, so that there would be reasonable basis for the opinion on the audited financial statement (Marden & Brackney, 2009).

The transformation of accounting standards towards IFRS would affect audit in many aspects, such as audit markets, audit function, audit risk and predominantly audit standards (Francis et al., 2014; Marden & Brackney, 2009; Sin et al., 2015). According to Marden & Brackney (2009), the implementation of IFRS might result in greater complexity in the audit process. Despite this, Sin et al. (2015) believe that because the recent audit standard (i.e. Auditing Standards No. 5[8]) is more principles-based, it enables auditors to focus on where the audit risk is the greatest and to be well adapted to client size. Moreover, according to Sin et al.

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[6] AU 312 is auditing standards of AICPA about audit risk and materiality in conducting an audit. AU 326 is also auditing standards by AICPA about audit evidence.
[7] Auditing Standards No. 15 by PCAOB is also about audit evidence.
[8] Auditing Standards No.5 of PCAOB is auditing standards that rules an audit of internal control over financial reporting that is integrated with an audit of financial statements.

(2015, p284), PCAOB stated that "AS5 requires significant judgement when assessing the effectiveness of a client's internal controls".

2.5 Summary findings

This chapter is divided into 4 sections. The first section discusses comparability and the benefits thereof; the second section deals with global accounting standards and principles-based accounting standards in general, while the third section analyzes about audit-related theories. And the last section looks at institutions and organizations responsible for financial reporting standards and audit regulation.

As discussed in the first section, comparability is a quality of the financial statement that enhances the usefulness of financial statement information. Comparability is not uniformity nor consistency. Uniformity, according to Defond et al. (2011) is when firms use similar accounting standards, while consistency, according to FASB, is when firms use the same accounting standards over time. It is one of the qualitative characteristics of financial statements mentioned in the conceptual frameworks and indeed produces benefits for investors and other stakeholders. As discussed in several studies mentioned in ICAEW (2015), there are two ways how comparability results in benefits: (1) decreasing the cost of information acquisition as well as increasing the quality of information, and (2) enhancing transparency. Moreover, the demand for a single-set of globally-accepted accounting standards is expected to produce higher comparability and transparency (Tarca, 2012). For years, there has been discussion as to whether principles-based accounting standard is better for enhancing comparability, compared to rules-based accounting standards. Prior literatures posit that principles-based accounting standards bring more benefit than rules-based standards, especially comparability.

Moving on to the role of auditor, it has its genesis in the needs of principals and agents to provide a reliable and independent review of the financial statement provided by agents. Thus, the agency theory and stewardship theory underlie the auditor's role. The agency theory ascribes the need for an auditor to perform the control function on behalf of the principal, to the principal's lack of trust in the agents. The stewardship theory states that agents work as stewards towards the principal and are willing to achieve the principal's objectives as well as the companies' objectives. Hence, to reassure the principal that he/she is trustworthy, the agent needs an auditor to provide assurance services.

Since the sample used in this research comprises foreign issuers registered in the U.S., the institutions responsible for accounting and reporting standards as well as audit regulation are the SEC, FASB, AICPA and PCAOB. Since the mandatory adoption of IFRS in the European Union, SEC and FASB reviewed the possibility of convergence of U.S. GAAP and IFRS. A step in this direction is the approval for voluntary adoption of IFRS for U.S. foreign issuers. However, SEC decided to take more time to review the possibility of IFRS implementation in U.S. setting. Hence, the answer the research question discussed in chapter 1 could provide more insight into whether IFRS, which is a principles-based accounting standard, produces more benefits, in this case that of enhancing comparability through the role of auditors.

Chapter 3: Literature Review

3.1. Previous Studies

3.1.1. Introduction

There are two streams of literature relevant to this thesis: the first is principles-based and rules-based accounting standards literature and the second is audit literature. In this chapter, both these are discussed extensively. This chapter includes main papers and sub-papers that are used to develop the hypotheses used to answer the research question. All relevant arguments and findings are discussed and linked to one another.

The next section of this chapter explains the hypotheses development, with the previous studies and literatures used to draw the hypotheses, in order to answer the research question posed in first chapter. This section also provides a brief table summarizing previous studies underlying the hypotheses development.

3.1.2. IFRS and Financial Statement Comparability

Since the EU countries and over 100 other countries have used and adopted IFRS as their accounting standards, comparability seems to be a topic of interest to be discussed among accounting practitioners, including researchers.

Implementation of IFRS has affected comparability across countries. It has made comparability issues one of the important considerations for investors to make cross-border investment. Thus, investors demand common accounting standards that are globally accepted.

Following this, many studies have been conducted to examine the impact of IFRS on comparability. In 2015, ICAEW published a summarized review on empirical research related to mandatory adoption of IFRS, particularly in the European Union. This review of empirical research discussed the impacts of IFRS, including the increase of comparability. According to ICAEW (2015), empirical studies have provided various methods to measure comparability, such as financial reporting information and information transfers, analyst forecasts and stock market returns. Moreover, SEC and FASB decided to consider the transition towards IFRS in

U.S. setting. According to FASB (2002), IFRS allows professional judgment which leads to greater comparability[9].

Brochet et al. (2013) examined the mandatory IFRS adoption and financial statement comparability. Their study utilized information transfer to measure increases in comparability for IFRS adopters, vis-à-vis the non-adopter firms. They concluded that implementation of IFRS could help investors or other users to get better information from financial statements which are publicly disclosed.

Brochet et al. (2013) used "abnormal returns to insiders' purchases of their own firms' shares" as a dependent variable. They assumed that abnormal returns on insiders' purchase could be ascribed to the private information owned by the firms' insiders. They expected that after the adoption of IFRS, such private information would be reduced and public information increased. Hence, investors have access to more qualified information to assess the company's performance, by comparing the same with other companies that use similar accounting standards. The result is that mandatory adoption of IFRS leads to capital market benefits, through improved comparability after adoption of IFRS, with reduction in the private information used for insider purchase and consequent reduction in the abnormal returns on account of insider purchase. The idea is that the comparability would be among large firms which disclose financial information using the same accounting standards (Brochet et al., 2013).

Yip & Young (2012) also used information transfer to capture the impact of IFRS in 17 countries in the European Union. They examined the information comparability through 3 proxies: (1) similarity in accounting functions, following De Franco et al. (2011), (2) the degree of information transfer, and (3) the similarity in information on earnings and information of book value equity. According to these authors, information comparability within countries in Europe – the sample's area – increased, following the mandatory implementation of IFRS. This improvement of cross country comparability helps investors to review the comparability among firms with similar economic condition and industry (Yip & Young, 2012).

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[9] As indicated in the Public Proposal of FASB regarding Principles-Based Approach to U.S. Standard Setting, "principles-based standards should have few, if any, exceptions and that the FASB (and others) should provide less interpretive and implementation guidance, encouraging increased use of professional judgement in applying the standards" (2002).

Furthermore, Cascino & Gassen (2015) also investigated the impact of mandatory IFRS in the EU countries of Germany and Italy. They followed a similar concept of comparability measurement as De Franco et al. (2011), which used the earnings prediction approach to measure comparability. The authors used the difference of predicted value of net income before extraordinary items and total accruals lagged by total assets which coefficients calculated in a regression model (Cascino & Gassen, 2015, p. 248). Besides using the approach of De Franco et al. (2011), they also used the cash flow-based comparability measurement. The result demonstrated that in general, the impact of IFRS is not too significant around the mandatory adoption period.

Cascino and Gassen (2015) also conducted two other sets of tests, which utilized the degree of compliance among the adopters. The result from the additional tests is that comparability is higher for firms with high compliance incentives in Germany and Italy. Early evidence that provides results similar to Cascino and Gassen (2015) is the study conducted by Daske et al. (2008), which examined the effect of IFRS in 26 different countries around the mandated period. They analyzed the effect on stock market liquidity, cost of capital and firms' value. They found that stock market liquidity increased, cost of capital decreased and equity values increased, around the mandated period. But the effect, in general, occurs only within countries with high legal enforcement and greater transparency. This result is possibly similar to the findings of Cascino and Gassen (2015) that countries which have better compliance experienced higher benefits of comparability.

While these studies discuss the mandatory adoption of IFRS in EU and other countries, there are other studies that examined the possibility of IFRS and the benefits in the U.S. setting. Several papers discussed the possibility of transition towards IFRS, as well as its impact on the economic and political situation in the U.S. (Agoglia et al., 2011; Hail et al., 2010a, 2010b, 2009; Jamal et al., 2010; Joos & Leung, 2013). Other studies discussed the voluntary IFRS adoption by non-U.S. firms and its cost and benefits to the US capital market (Barth et al., 2012, 2013).

Hail et al. (2010a, 2010b, 2009) raised the IFRS adoption issue and related it to the economic and political situation in the U.S. They analyzed the cost and benefit of IFRS adoption, as well as the impact on worldwide competition among accounting standards and standards-setters. They also analyzed the political position of institutions such as FASB and IASB, should the U.S. decide to adopt IFRS. The results of their analysis are: (1) Overall,

comparability provides more benefits for investors and the capital market (i.e. greater market liquidity and lower cost of capital), (2) with IFRS becoming more common fin the international market, IASB could monopolize the standard setters' authorization and at the same time, could compromise the economic environment of the U.S., as transition towards IFRS could lead to standards less suited to the U.S. setting (Hail et al., 2010b). According to Hail et al. (2010b), companies in different countries have different intentions and objectives towards financial statements. Thus, it could affect IASB and put U.S. institutions in less advantageous situations.

Agoglia et al. (2011) and Joos & Leung (2013) analyzed the reaction of CFOs and investors to IFRS. Agoglia (2011) recorded two different experiments among CFOs, Controllers, and VPs of finance. They manipulated standard precision and audit committee strength, which are the independent variables, and required the participant to make a lease classification decision based on several conditions (Agoglia et al., 2011, p. 754). They found that under principles-based standards, management are less aggressive than under rules-based standards, regarding preparing financial statement.

Additionally, Joos & Leung (2013) conducted a study to evaluate how investors in the U.S. see the possibility of IFRS adoption in the U.S. They used stock market reactions around several events regarding IFRS adoption. They found that the market reacts positively towards the events. They also found that the market reaction is higher when the adoption of IFRS is expected to bring more benefits and weaker when the companies have high litigation risks. According to Joos & Leung (2013), the cost of information for investors would not decrease unless the companies implement IFRS properly.

Despite many previous literatures finding that IFRS adoption could enhance financial statement comparability, thus bringing more benefit to investors, there are also some papers which feel that that IFRS has not had any significant impact. According to Ball (2006), even though IFRS brings more advantages to investors or other users, it could also bring disadvantages such as information noise and managerial manipulation[10] or delude the investors to expect more uniformity within global standards, thus covering up the reporting quality (Ball, 2006).

Barth et al., (2012) examine whether non-US firms which adopt IFRS have greater comparability than US firms which adopt US-GAAP and whether there is significant difference

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[10] Information noise and managerial manipulation is explained by Ball (2006) on page 13. The notion is related to fair value accounting that has been pushed too far by IASB and FASB.

in the comparability between these firms. They find that comparability is indeed greater when IFRS firms adopt IFRS rather than domestic standards, but it would happen when the firms implement IFRS mandatorily in countries with high law enforcement.

Moreover, Barth et al., (2013) studied whether the voluntary adoption of IFRS by US firms might have an impact on comparability and lead to benefits in the capital market and found that financial numbers of companies which apply IFRS are more comparable, than the companies which do not apply IFRS, and those companies which use IFRS standards receive more benefits in the capital market (i.e. increase in liquidity, share turnover and firm-specific information).

A similar study by the same authors examined the impact of IFRS adoption on comparability and capital market benefits for companies which adopt IFRS, relative to those which don't. The results show that companies which adopt IFRS are likely to have greater comparability, and therefore have greater capital market benefits. The authors also state that the prediction might not be robust, because there might be several reasons that influence voluntary adopters to adopt IFRS, such as incentives, regulation and other institutional features.

3.1.3. Audit Style and financial statement comparability

Kothari et al. (2010) claim that each reputable audit firm develops its own unique internal working rules, using different approaches and interpretation of auditing and accounting standards. These working rules somehow are different between audit firms.

Audit style was first used in Francis et al. (2014)'s study, as a term for in-house working rules which comply with auditing standards and GAAP and which are used by auditors to conduct audit for their clients. Following this term, Van Os (2015) also uses audit style to refer to the same form of audit firm's working rules and examines its effect on financial statement comparability.

The audit style effect is also implied in Dichev et al. (2013)'s study, which interviews CFOs of public companies. The CFOs infer that the behavior of auditors has changed following the FASB's orientation on rules. The interpretation of rules is dominated by self-interest, rather than professional judgement which comes from actual experiences of auditors, which affects the quality of audit. This implies that the work of audit firms is considered to be consistent among their clients, in line with the audit style effect mentioned in Francis et al. (2014).

Using the assumption that two companies audited by the same audit firm would be more comparable than two companies audited by different audit firms, Francis et al. (2014) argue that audit style has an impact on financial statement comparability. Francis et al. (2014) use the closeness of total accruals and discretionary accruals[11] to reflect the closeness of earnings reported in financial statement.

Van Os (2015) uses the same concept to examine the effect of audit style on financial statement comparability, under principles-based and rules-based standard. Van Os (2015) uses two different samples in UK and US, as UK is known for the closeness of its accounting standards to IFRS. The results confirm that audit style has a stronger effect on financial statement comparability under principles-based standards, rather than rules-based standards.

3.2. Hypotheses Development

FASB (2002) stated that adopting IFRS would provide higher comparability through increase in professional judgement. This is also supported by several studies, which provide evidence that IFRS could enhance comparability. For instance, Daske et al. (2008) conclude that because of greater comparability (partially), the market liquidity and firm value also increase for voluntary adopters of IFRS. Barth et al. (2012) also find evidence that firms in common law countries with high enforcement and mandatory adoption of IFRS, have higher financial statement comparability. Agoglia et al. (2011) examined principles-based and rules-based standards and found that, the comparability is higher under principles-based standards (i.e. less precise standards). Cascino and Gassen (2014) examined the effect of mandatory adoption of IFRS in Germany and Italy and found that although it is only marginally, the comparability of financial statements is higher post-IFRS and for private firms.

While these studies support the statement that comparability could be higher when IFRS is adopted or the standards are more principles-based, several studies argue to the contrary. Schipper (2003) and Jamal et al. (2010), for example, contend that U.S GAAP (i.e. more rules-based standard) is actually a principles-based standard, which follows the conceptual framework and just like IFRS, produces greater comparability and good financial statements. Hail et al. (2009) also state that adopting IFRS would not guarantee higher comparability.

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[11] This shall be further explained in the research design of this thesis.

Schipper (2003) states that in order to increase comparability, such a specific and detailed guidance on a standard, whether it is rules-based or principles-based, should reduce the effects of differences in professional judgement. This professional judgment is required for both preparers and auditors. Jamal et al. (2010) suggest that it will be beneficial to adopt principles-based standards (i.e. IFRS), only if the auditors are also principles-based. Based on both these studies, it can be concluded that the auditor's job, as one of the parties responsible for producing the financial statement, will be effective if the procedures which are used in the audit process are based on principles-based standards. These procedures are defined as internal working rules and procedures by the audit firms (big4 or non-big4 audit firms). Those internal house working rules are implied as audit style (Francis et al., 2014; Van Os, 2015).

Sin et al. (2015) examined the impact of rules-based to principles-based transition in auditing standards[12] by PCAOB. They found that audit processes are more effective and accurate under AS5 than under AS2 (i.e. under AS5, audit effort can be directed to where risk is the greatest, audits are scalable and can be customized (Sin et al., 2015).

Kothari et al. (2010) suggest that principles-based standards should be in line with working rules. This way, economic institutions such as the auditors could produce internal procedures (i.e. working rules (Francis et al., 2014)) based on their own professional judgement. Moreover, Francis et al. (2014) provides evidence from a sample of U.S. firms that two firms audited by the same big4 audit firm are more comparable than two firms audited by different big4 audit firms. While Francis et al. (2014) used a sample of U.S. firms, van Os (2015) did the same study but in different countries and compared the comparability induced by audit style between those countries (i.e. U.K. and U.S.). The result is audit style under U.K. local GAAP which is considered similar to IFRS, has higher comparability than in the U.S. samples.

This thesis attempts to answer the research question by examining whether the internal working rules of audit firms affect financial statement comparability, when the companies implement IFRS rather than U.S. GAAP. Following Francis et al. (2014) and Van Os (2015), the expected result is that the audit style will produce higher comparability, when the standard is more principles-based. It is assumed that every firm would comply with the regulation and rules applied in the country where it operates or is listed. Thus, if the regulators in the country

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[12] In 2004, the Auditing Standard No.2 (AS2) – rules-based auditing standard- was introduced by PCAOB. In 2007, following the voluntary IFRS adoption. In 2007, the AS2 was replaced by Auditing Standard No. 5 (AS5) – principles-based auditing standard.

prefer principles-based standards than rules-based standards, subsequently the company too will follow. Hence, the audit firms are also supposed to implement the standard, so as to be in line with their clients. Based on this argument, it is possible to state that the impact of audit style on comparability would be more significant, provided the audit firm would implement the IFRS in their internal working rules. Thus, the alternative hypotheses would be:

H1: Two different companies that are audited by the same big 4 audit firms and adopt IFRS are more comparable than two companies that are audited by different big 4 audit firms and do not adopt IFRS.

3.3 Summary findings

As indicated earlier, there are two streams of literatures relating to this research. First is the accounting standards literature and the second is auditing literature. There are four main studies and several other studies that help in developing the hypotheses to answer the research question. With regard to accounting standards literatures, there are studies by De Franco et al. (2011) and Brochet et al. (2013), while studies on auditing include those by Francis et al. (2014) and Van Os (2015). In general, this research is the extended version of the studies of Francis et al. (2014) and Van Os (2015). However, the impact of audit style and IFRS on financial statement comparability has also been investigated additionally in this study. As prior studies provide evidence that both have impact on comparability, examination of both the audit style and IFRS in a regression is interesting. This chapter provides more insight into how prior literatures form the basis for the hypotheses development of this thesis.

Table 1. Summary table of prior literatures

Author	Objective of study	Samples	Methodology	Results
Francis, Pinnuck & Watanabe (2013)	Effect of audit style on financial statement comparability.	6.044 U.S. firms from 1987-2011.	Archival Study	The authors found that audit style affects financial statement comparability. They found that companies audited by the same big4 auditors have more comparable financial statements than those audited by different big4 auditors. They find the same result for companies that are audited by big4 auditors, compared to those audited by non-big4 auditors.
De Franco, Kothari & Verdi (2011)	Benefits and impact of financial statement comparability, as well as what empirical measures could be used to measure comparability.	635.777 firms-years observation.	Archival Study	The authors found that comparability is positively related to analyst forecast and negatively associated with analyst's dispersion, and also that. Additionally, they found that comparability lowers the costs of acquiring information and increases the quality of earnings information of a firm.
Brochet, Jagolinzer & Riedl (2013)	Whether mandatory adoption of IFRS leads to capital market benefits through increasing of comparability.	663 U.K. firms from 2003-2006. Final sample is 2.616 firms-years observations.	Archival Study	They found that mandatory IFRS decreases the possibility of investors acquiring private information and benefiting from it, by enhancing of comparability.
Van Os (2015)	Impact of audit style on financial statement comparability, comparison between principles-based and rules-based accounting standards.	1.569.017 U.S. firms-years observation and 6.238 U.K. firms-years observation.	Archival Study	He finds that audit style has higher effect on financial statement comparability within U.K. companies than U.S. companies.

Chapter 4: Research Design

4.1. Introduction

This chapter discusses the variables, samples and the regression models. To examine the hypotheses mentioned in chapter 3, there is one regression model to estimate two proxies or dependent variables: total accruals and abnormal accruals. The regression model is covered in section 2, which explains how the regression model is formed.

The next 3 sections (section 3, 4, and 5) discuss the dependent variable, independent and control variables used in this research, along with the proxies. These sections also discuss what possible theories and previous studies underlie the use of the proxies.

The last section discusses the samples used in this research. It discusses how the samples were collected, processed and used to run the regression model explained in section 2 of this chapter.

4.2. Methodology

Francis et al. (2014) use big4 and non-big4 audit firms as independent variables in an OLS regression model to test their hypotheses, with accruals and earning covariation as dependent variables. This thesis is an extended version of Francis et al. (2014) and Van Os (2015) models and follows the regression models of Francis et al. (2014), (except for the earnings covariation model), and the Van Os (2015) model, but for the sample setting. Since the aim of the hypotheses is to examine whether the audit style of big 4 firms has a higher effect or not on financial statement comparability under IFRS, the research model used in this thesis includes IFRS as the independent variable of interest. To examine the hypotheses mentioned in chapter 3 before, the following equation is posited:

$$Diff.Total\ Accruals(Abn.Accruals)_{ij} = \propto_{0ij} + \propto_1 SameBig4_{ij} + \propto_2 IFRS_{ij} +$$
$$\propto_3 SameBig4 * IFRS_{ij} + \propto_4 Controls_{ij+\in_{ij}} \tag{1}$$

Where *Diff. Total Accruals (Abn.Accruals)$_{ij}$* is the absolute difference in abnormal accruals of the matched firms. *SameBig4$_{ij}$*is a dummy variable which is 1, if the matched companies are audited by the same big4 audit firm, and 0 if the matched companies are audited by different big4 audit firm. *IFRS$_{ij}$*is also a dummy variable, which is 1 if the matched companies use IFRS, and 0 if one company uses IFRS and another company does not or both matched companies do not use IFRS. The equation used in this thesis is basically following that of Francis et al. (2014).

The coefficients of interest in the regression are $\propto_1, \propto_2$ and $\propto_3$ as well as the sign of each coefficient. Following Francis et al. (2014), it is expected that the sign for the three independent variables would be negative, because the lower the differences of accruals between paired-companies, the more comparable they are. However, since the independent variables are dummy variables, to answer the hypotheses the $\propto_3$ is used incorporated with the coefficient of other independent variables. Chapter 5 will elaborate how dummy variables are interpreted in interaction terms.

More explanations about the dependent, independent and control variables follow in the next section.

4.3. Dependent variable

De Franco et al. (2011) use closeness of estimated earnings and returns to measure comparability. The assumption is that two firms have a comparable accounting system, if they produced similar financial statement under similar economic events (De Franco et al., 2011, p. 899). They use net income before extraordinary items divided by the beginning market value of equity as the proxy of earnings, and stock returns to measure the net effect of economic events of financial statements. De Franco et al. (2011) use earnings because they believe that earnings are the financial statement's output that would be the same when the accounting choices are the same, in similar economic circumstances.

Francis et al. (2014) and Van Os (2015) follow the measurement of De Franco et al. (2011), but instead of using quarterly net income to measure financial statement comparability, use the closeness of accruals between matched companies. Accruals are the most adequate item in earnings, because the comparability of accruals could be directly affected by the auditor and is also subject to discretion (Francis et al., 2014). The closeness of the financial statement comparability is examined by calculating the absolute difference of total accruals and abnormal accruals in this following equation (Francis et al., 2014; Van Os, 2015):

$$Diff.Total\ Accruals_{ij} = absolute(Ttl.Accruals_i - Ttl.Accruals_j) \quad \text{(2a)}$$

$$Diff.Abn.Accruals_{ij} = absolute(Abn.Accruals_i - Abn.Accruals_j \quad \text{(2b)}$$

where *Diff. Total Accruals$_{ij}$* and *Diff. Abn.Accruals$_{ij}$* the absolute difference of total accruals and abnormal accruals of company *I* and company *j*. Companies are paired based on the same SIC two-digit classification.

Total accruals in the formulas will be calculated as the difference between net income (loss), cash flow from operating activities, and extraordinary items and discontinued operations. The outcome from the calculation is then scaled by lagged total asset. The formula to calculate total accruals is:

$$Total\ Accruals_t = \frac{(NI - OANCF - XIDOC)}{Lag.AT} \qquad\qquad (3)$$

where NI is net income, OANCF is cash flow from operating activities, XIDOC is extraordinary items and discontinued operations, and Lag.AT is lagged total asset. All the values are available at COMPUSTAT.

Hribar and Collins (2002) demonstrate that it is better to utilize the cash flow statement approach than the balance sheet approach, to calculate discretionary accruals or non-discretionary accruals.

Using data from the balance sheet could lead to high possibility of measurement error in estimating accruals, which could lead to earning management being detected, while there was no earnings management. Thus, for estimating the total accruals, this thesis uses the cash flow statement approach.

Francis et al. (2014) and Van Os (2015) follow Kothari et al. (2005)'s performance-based approach to calculate abnormal accruals. Instead of using Kothari et al. (2005) method, this thesis follows the accruals quality method of Dechow & Dichev (2002) and McNichols (2002).

The role of accruals is to adjust the recognition of cash flows, so that the adjusted numbers (i.e. earnings) could measure the firm's performance, but accruals contain estimated future cash flows (Dechow & Dichev, 2002). Thus, to capture the best estimation errors of accruals, they measure the estimation accruals error "as the residuals from firm-specific regressions of changes in working capital on past, present and future operating cash flow" (Dechow & Dichev, 2002, p. 35).

McNichols (2002) defines an accruals estimation using the Dechow & Dichev (2002) model. However, he links the accruals model of Dechow & Dichev (2002) with the discretionary model of Jones (1991). According to McNichols (2002), linking both approaches could calibrate both errors induced in Model Jones (1991) and Dechow and Dichev (2002)

models. Additionally, Jones (2007) agrees that the McNichols (2002) model is a powerful one to estimate earnings quality through accruals estimation.

Hence, to calculate the abnormal accruals to be used in formula 2b, the following equation (all variables are scaled by average of total asset *t-1* and *t*) is used:

$$WCA_{it} = \alpha_0 + \alpha_1 CFO_{it-1} + \alpha_2 CFO_{it} + \alpha_3 CFO_{it+1} + \alpha_4 \Delta SAL_{it} + \alpha_4 \Delta PPE_{it} + \varepsilon_{it} \quad \textbf{(4)}$$

Where:

WCA	= Working Capital Account of company i at year t
CFO	= Cash flow from operation of company i at year t-1, t, and t+1
ΔSAL	= Change in sales of firm i at year t
ΔPPE	= Change in property, plant and equipment of company i at year t

The estimated residuals derived from the regression model in equation 4 are used to estimate the standard deviation (variability) residuals over 3-5 years. Finally, the variability of residuals will be used as abnormal accruals in equation 2b.

4.4. Independent Variable

The independent variables in the regression model are:

(1) dummy variable of 1 (if both paired-companies use big4 as its auditor and 0 if otherwise). In the regression this is named SameBig4.

(2) dummy variable of 1 (if both paired-companies use IFRS and 0 otherwise). In the regression this is named IFRS.

The SameBig4 variable represents the term of audit style induced in comparability. Following Francis et al. (2014), the assumption that companies audited by the same audit firm should be more comparable is used here, since the in-house working rules and the professional judgement used by the audit firms are possibly similar.

Additionally, according to Brochet et al. (2012), auditors directly and practically participate in several attributes of the financial reporting system, such as accounting standards, interpretation, professional judgement, and legal action, and all of these attributes could influence comparability.

The next independent variable is IFRS, which is used to represent the effect of voluntary application by foreign issuers in the US. It is used as a moderating variable, since its presence shows whether the voluntary adoption of IFRS in the US might lead to more comparable financial statements.

According to Van Os (2015), audit style has a greater effect on comparability under principles-based (i.e. IFRS) than rules-based accounting standards. Brochet et al. (2013) state that IFRS adoption helps users to use the information effectively through comparability of financial reporting. This is because companies under similar accounting standards are likely to be more comparable (Brochet et al., 2013).

4.5. Control variables

Based on the assumption that companies within the same industry have similar economic conditions (Francis et al., 2014), it is important to control for unobserved firm-specific characteristics in the regression model (Lang et al., 2010). Following previous studies (Brochet et al., 2013; De Franco et al., 2011; Francis et al., 2014; Lang et al., 2010; Van Os, 2015), this study controls for firm size, leverage and market-to-book ratio, as these are the most common variables that are controlled, related to firm-specific characteristics. The levels and difference of the firms-specific characteristics are also controlled. Both the levels and differences are controlled, using yearly minimum values and differences between control variables.

According to Francis et al. (2014) and Van Os (2015), firms are more similar when the absolute difference is lower, or when the minimum value of the variables within the regression is higher. Moreover, since the dependent variables (accruals) are calculated for each firm-pair, it is important to control for the levels and differences value of the control variables. The expected sign for control variables is positive for those having difference value, and negative for control variables that have minimum level value. According to Lang et al. (2010) and Francis et al. (2014), there are no empirical reasons underlying the control variables used in the regression that explain comparability.

Table 2. Variables description

Variables	Type	How to calculate	Expected Value
Total Accruals	Dependent variable.	$$Total\ Accruals_t = \frac{(NI - OANCF - XIDOC)}{Lag.\ AT}$$	
Abnormal Accruals		The standard deviation (3-5 years) of residuals that are estimated using accruals quality model of Dechow & Dichev (2002) and McNichols (2002).	
Same Big 4	Independent variable.	Dummy variable: 1 if paired-companies audited by the same big4 audit firm, and 0 if paired-companies audited by different audit firm.	-
IFRS	Independent variable.	Dummy variable: 1 if paired-companies report in IFRS, and 0 if one or both paired-companies report in standards other than IFRS.	-
Diff_Size	Control variable.	The absolute value of differences in' logarithm of total asset between paired firms.	+
Diff_Market to Book	Control variable.	The absolute differences of market to book ratio: Market value of equity divided by book value of equity.	+
Diff_Leverage	Control variable.	The absolute differences of leverage ratio: Total Debt divided by total Equity.	+
Min_Size	Control variable.	The minimum value of differences of logarithm of total asset between paired firms.	-
Min_Market to Book	Control variable.	The minimum differences of market to book ratio: Market value of equity divided by book value of equity.	-
Min_Leverage	Control variable.	The minimum differences of leverage ratio: Total Debt divided by total Equity.	-

4.6. Samples

There are 923 foreign companies that are listed and registered under the SEC as of 2015. Before 2008, all the foreign issuers were required to present their financial reporting in accordance with U.S. GAAP, failing which they should prepare a reconciliation to U.S. GAAP (SEC, 2013). In 2007, SEC permitted foreign issuers to report in IFRS without reconciliation with U.S. GAAP, effective from March 4, 2008 (SEC, 2007). Canada and Cayman Islands are the top two countries listed in SEC, with 292 and 119 companies respectively.

The years of observation are 2009-2016; it has been assumed that the effective year of adoption was 2008, since the decision was made in 2007. Thus, since 2008, the companies that voluntarily use IFRS are not required to reconcile their financial statements with U.S. GAAP anymore. Additionally, since there was a big crisis in 2008, the year has been excluded from the sample.

First, the list of foreign companies registered with SEC is used and then the companies' names were matched with the unique code of those companies using STATA application. After the matching process, several companies were found, which had no match between names and unique codes. These names were typed manually in COMPUSTAT.

Finally, 527 unique codes of companies were found, out of the 923. Since lagged assets were used, the data obtained from COMPUSTAT related to 2008-2016. There were 4.650 firms-years observation obtained from COMPUSTAT. Then, firms-years that have total assets less than 10 million dollars, that are audited by non-big4 audit firms, that switched auditors, and that contained the words "Holding" or "Holdings" in their name, were dropped.

Next, firms-years observations that do not have proper data to calculate accruals and the control variables were dropped. After that, groups were made of companies with 2-digit SIC code within same industries and years. At the end, there were 183 firms in 46 different groups of companies within the same 2-digit SIC code and years.

The last step was pairing of each firm with other firms within the sample, randomly using STATA. There were 10.650 unique firms-years observations after pairing.
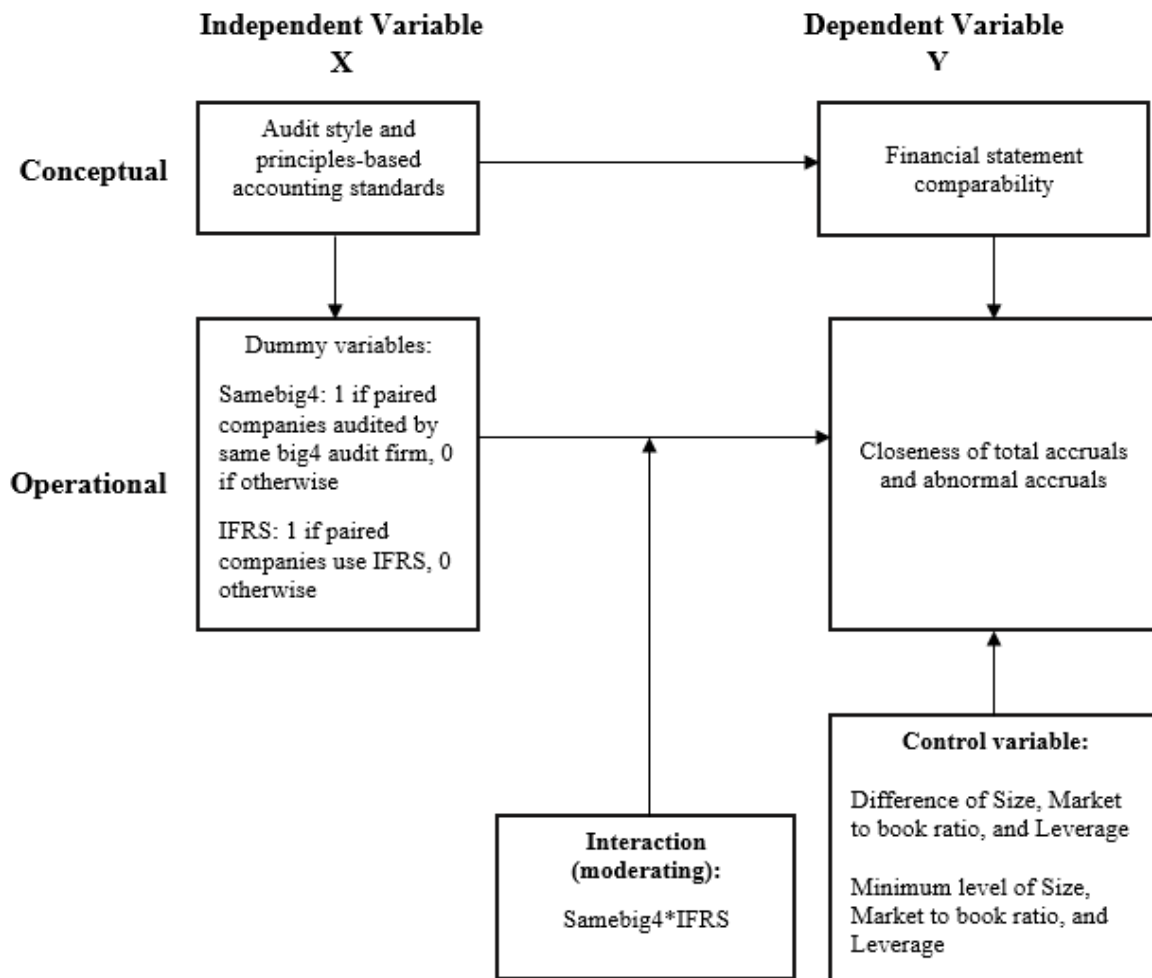
Table 3. Samples description

Foreign Issuers sample, 2008-2016	
Total firm-years observations obtained from COMPUSTAT	4.650
Firm-years observations that have total assets exceeding 10 million, used big4 audit firm and did not switch auditor, and do not contain "HOLDING" or "HOLDINGS" in their names.	3.069
Firm-years that lack data to calculate accruals (total accruals and discretionary accruals) and control variables.	1.371
Firm-years within the same 2-digit SIC code with over 10 firms within each group.	944
Group of companies based on the SIC Code	46
Number of firms in total	183
All firm-pairs combination	10.650

4.7 Summary findings

To test the hypotheses, the regression model is developed based on Francis et al. (2014)'s concept of closeness of accruals. Instead of using Modified Jones model of Kothari (2005) as Francis et al. (2014), the model of Dechow & Dichev (2002) and McNichols (2002) is used to calculate the abnormal accruals. As for the total accruals, the calculation of Francis et al. (2014) and Van Os (2015) is followed, using difference of net income, cash flow from operating activities, extraordinary items and discontinued operations. All are scaled by lagged total assets. As for the independent variables, dummy variables of samebig4 and IFRS are used in the regression. The unobservable firm-specific characteristics are controlled for by including the absolute difference of size, market to book ratio and leverage into the regression model. Minimum level of size, market to book ratio and leverage are also included to control the unobservable firm-specific characteristics. The sample used in this research is foreign issuers registered in the U.S. from 2009-2016. These years were selected because the effective year of IFRS voluntary adoption is 2008 and thereafter, no reconciliation with U.S. GAAP was needed. Thus, the research design and sample used in this thesis are expected to be capable of examining the hypotheses.

Figure 2. Libby boxes

Independent Variable
X

Dependent Variable
Y

Conceptual

Audit style and principles-based accounting standards

→

Financial statement comparability

Operational

Dummy variables:

Samebig4: 1 if paired companies audited by same big4 audit firm, 0 if otherwise

IFRS: 1 if paired companies use IFRS, 0 otherwise

→

Closeness of total accruals and abnormal accruals

Interaction (moderating):

Samebig4*IFRS

Control variable:

Difference of Size, Market to book ratio, and Leverage

Minimum level of Size, Market to book ratio, and Leverage

Chapter 5: Result

5.1. Introduction

Subsequent to data collection and preparation, the research model explained in chapter 4 is executed within the observations data. The main purpose of running the regression model within the collected data is to show that big4 audit firms and IFRS have greater impact on financial statement comparability. Thus, in this chapter, the main result of the regression model is presented along with the descriptive statistics of research data and Ordinary Least Square (OLS) assumption.

The first part of this chapter presents and discusses the descriptive statistics of all data used in the regression model. Next, the OLS assumption test is done and the overview of the result is presented in the second part of this chapter. The result of OLS assumption regression model is presented in the appendix. The last part of this chapter discusses the main result of the regression model. In this part, the regression is discussed and compared to relevant previous studies.

5.2. OLS Assumption

This section demonstrates the overview of assumption of Ordinary Least Square (OLS) regression. First of all, multi-collinearity test is to check whether there are identical linear combinations among variables. Two different tests are used to check the multi-collinearity problem: Pearson-correlation test and variation inflation factor. Both results show that there are no multi-collinearity problems among the variables. However, the result for the interaction variable *samebig4IFRS* is at coefficient of 0.827 for Pearson-correlation test. Still, according to Gujarati (2003) the value is acceptable. The result of the multi-collinearity test is shown in the appendix.

Second assumption test is the normality test of research data. Saphiro-wilk test is conducted and histogram of residual is presented. The Saphiro-wilk test result rejects the hypotheses of normality for every variable except for IFRS. As shown in appendix, the histogram shows normality distribution with a few skewed data. The possible reason for this issue is the data used as sample is too small.

The last test is the heteroscedasticity test. To test this assumption, the Breusch-Pagan test for heteroscedasticity is done. The first model using total accruals as the dependent variable shows significant result of F-test valued 1332.58 on 1% level of significance. The second model using abnormal accruals also shows significant result of F-test valued 554.52 on 1%

level of significance. This means that no heteroscedasticity problem exists. The test result is incorporated in the appendix.

5.3. Descriptive Statistics

The summary of descriptive statistics for the data used in this thesis is provided in table 4. Overall observations are 7.485, except for variable abnormal accruals, which are 3.364 in total. The mean of total and abnormal accruals is 14.7 and 4.9 percent, respectively. This result is contrary to that of De Franco (2011), Francis et al., (2014) and Van Os (2015), all of which have lower mean of total accruals and higher mean of abnormal accruals. As shown in the table, 26.5% of paired-companies in the sample use same big4 audit firms, 70.3% of them use IFRS and 20% of them use both big4 and IFRS.

Table 4

Descriptive Statistics

Variables	Obs.	mean	median	Standard Deviation	min	max
diff_totalacc	7485	0.147	0.091	0.159	0	1.130
diff_abnacc	3364	0.049	0.037	0.044	3.520	0.394
samebig4	7485	0.265	0	0.441	0	1
IFRS	7485	0.703	1	0.457	0	1
samebig4IFRS	7485	0.200	0	0.400	0	1
diff_size	7485	2.194	1.791	1.726	0	9.574
diff_MTB_ratio	7485	480.124	210.839	675.135	0.011	6154.314
diff_leverage	7485	5.579	1.571	9.158	0	65.026
min_size	7485	5.532	5.711	1.887	0.861	10.496
min_MTBratio	7485	92.622	111.148	406.316	-1889.639	4048.317
min_leverage	7485	1.906	0.023	4.197	0	55.675
N	7485					

5.4. Regression Result

This section discusses the main result of regression model. The hypotheses of this thesis predict that paired-companies audited by big4 audit firm and using IFRS are more comparable than companies audited by different big4 audit firms, which do not use IFRS. The regression result is shown in table 7.

Before the results of the regression model are presented, a word about how the dummy variables in the regression model capture this research data. Since interaction dummy variables are used to answer the hypotheses of this thesis, there are four possible interactions derived from the interaction between samebig4 and IFRS. How the variable samebig4IFRS captures the interaction between two independent variables in the regression is shown below in Table 5. As presented in the table, there are 3 possibilities of the interaction value being 0:

(1) When paired-companies have same big4 audit firm but they do not use IFRS
(2) When paired-companies use IFRS but they have different big4 audit firm
(3) When paired-companies do not have same big4 audit firm and do not use IFRS

Thus, the interaction variable in the regression captures 3 different possible situations. The tabulation of each independent variable is presented in Table 6 below. Each independent variable is randomly created. Thus, there is no problem in the data that use dummy variables.

Table 5. How samebig4IFRS capture the data

Samebig4	IFRS	Interaction: samebig4IFRS
1	1	1
1	0	0
0	1	0
0	0	0

Table 6. Independent variable tabulation

samebig4	IFRS		
	0	1	Total
0	1,743	3,762	5,505
1	480	1,500	1,980
Total	2,223	5,262	7,485

Table 7

Regression Result

Variables	Expected Sign	Difference of total accruals Coefficient (Standard Error)	Difference of abn. accruals Coefficient (Standard Error)
samebig4	-	-0.002	-0.010***
		(0.007)	(0.003)
IFRS	-	-0.012***	-0.008***
		(0.005)	(0.002)
samebig4IFRS	-	0.011	0.009**
		(0.009)	(0.003)
diff_size	+	-0.008***	0.002**
		(0.002)	(0.001)
diff_MTB_ratio	+	-6.870**	1.250
		(3.350)	(1.300)
diff_leverage	+	0.001**	-0.000*
		(0.000)	(0.000)
min_size	-	-0.035***	-0.002**
		(0.002)	(0.001)
min_MTBratio	-	1.810	5.460***
		(5.320)	(2.040)
min_leverage	-	-0.000	-0.000
		(0.001)	-0.000271
Constant		0.360***	0.065***
		(0.014)	(0.007)
Observations		7,485	3,364
Number of companies		160	116

Standard errors in parentheses

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

Next, the main result of the regression is discussed, as presented in table 7 above. As presented in the regression result table, the result for variable IFRS is significant on the level

of 1% (p-value 0.001), and coefficient -0.012. However, the result of samebig4 for difference of total accruals with coefficient -0.002 is at an insignificant p-value level, with the same result for interaction variable samebig4IFRS with insignificant coefficient of 0.011.

The first model using total accruals demonstrates results different from those of Francis et al. (2014) and Van Os (2015). They found a significant result for total accruals and samebig4 relation, as well as the predicted sign which is negative. The result of this regression shows negative sign as predicted for variable samebig4, but insignificant level of p-value. On the other hand, the variable IFRS shows negative coefficient and significant level of p-value, which are aligned with the prediction in chapter 4. However, the main interest coefficient in this regression is the interaction variable samebig4IFRS, which, though it shows insignificant result, is not aligned with the predicted sign. Though it was envisaged that the sign would be negative, it turned out to be positive.

Unlike the difference of total accruals, for the difference of abnormal accruals, the coefficient of samebig4 is -0.010 is on the significant level of 1% (p-value 0.001). As for the variable IFRS, it is also significant on level of 1% with coefficient -0.008. The result for the interaction variable samebig4IFRS is also significant on level of 1% and coefficient 0.009.

The second model result using abnormal accruals is aligned with prior studies. As in the case of Francis et al. (2014) and Van Os (2015), the result for variable samebig4 is significant and as expected, the sign is negative. As for variable IFRS, this result is also aligned with the predicted sign. It is negative with significant p-value. However, the main interest coefficient which is the interaction variable samebig4IFRS, shows results contrary to those predicted. Although it shows a significant result, the sign is positive.

Conclusively, the regression result rejects the hypotheses. It shows that the total accruals and abnormal accruals of paired-companies, when they are audited by similar big 4 audit firm and use IFRS, are not lower than paired-companies that are audited by different audit firm and do not use IFRS. Thus, the result suggests that paired companies that are audited by the same big4 audit firm and use IFRS, are not more comparable than paired-companies that are audited by different big4 audit firm and do not conform to IFRS.

However, even though the result rejects the hypotheses, it is worth noting that in general, each independent variable samebig4 and IFRS is associated with lower accruals, when there is no interaction. This is in line with the findings of Francis et al. (2014) and Van Os (2015). Additionally, it is also necessary to analyze whether the financial comparability in

Francis et al. (2014) study is indeed comparability, since comparability is often misunderstood as uniformity (Defond et al., 2011). According to Defond et al. (2011), uniformity is when companies use similar accounting standards. Hence, in the auditor-induced comparability comes from the uniformity of each company which uses the same accounting standards. Nevertheless, this assumption is still needs to be empirically tested. Since uniformity has not been tested in this study, this could be suggested for further research.

Furthermore, the data was analyzed and revealed severable possible reasons that might affect the result of the regression:

(1) As mentioned earlier, there are 3 possible interactions that are captured by the variable samebig4IFRS. This could be one possible reason why both the models show a positive sign instead of negative sign; since there are 3 interactions that are valued 0 and each of them captures different explanation.

(2) The sample setting used in this research is different from those in prior studies. Francis et al. (2014) used all U.S. companies in COMPUSTAT and Van Os (2015) used two different countries: the U.S. and U.K. Both studies used all companies without differentiating the foreign issuers, while this study uses only the foreign issuers, which lowers the observations. However, there should be no significant problems, since the companies are paired randomly to each other.

As for the control variables, the results are presented in table 7. First, the control variables that use absolute differences: variable difference size shows result -0.008 with significant level of 1% using total accruals and 0.002 with significant level of 1% using abnormal accruals. Variable difference market to book ratio shows result -6.870 with significant level of 5% using total accruals and 1.250 with insignificant level of p-value using abnormal accruals. The last control variable using absolute difference is leveraged with coefficient 0.001 with significant level of 5% using total accruals and -0.000 with significant level of 10% using abnormal accruals.

For control variables that use the minimum level value, the result is presented in table 7. Variables minimum size shows result -0.035 with significance level of 10% using total accruals and -0.002 with significance level of 5% using abnormal accruals. Variables minimum market to book ratio shows result 1.810 with insignificant level of p-value using total accruals and 5.460 with significance level of 10% using abnormal accruals. Lastly, variable minimum

leverage shows result -0.000 with insignificant level of p-value using total accruals as well as abnormal accruals.

5.5. Summary findings

This research was conducted to examine whether audit style has impact on financial statement comparability, following the study of Francis et al. (2014). This thesis also aims to provide evidence whether principles-based accounting standards produce more comparability than rules-based accounting standards, following Van Os (2015). Additionally, the main interest of this research is to examine the interaction between audit style and principles-based accounting standards (i.e. IFRS).

Before examining the regression model, the data is tested using OLS assumption. Normality test, heteroscedasticity test and multi-collinearity test were performed. The result is that there are no problems related to normality, heteroscedasticity and multi-collinearity found within the research data, except for interaction variable samebig4IFRS, which is valued at 0.827, almost nearing unity. However, according to Gujarati (2003) it is still acceptable.

Subsequently, as the main results are presented and discussed previously in this chapter, in the first model using total accruals, the variable samebig4 shows negative sign with insignificant level of p-value. On the other hand, the second model using abnormal accruals, the variable samebig4, shows negative sign with significance level of 1%. Furthermore, the variable IFRS shows negative sign and significance level of 1% in both models. This means that even though in the first model, the samebig4 shows insignificant result, in general the independent variables are associated with lower accruals, when there is no interaction between variables. However, the interaction variable samebig4IFRS shows a positive sign and insignificant result for the first model but significant result for the second model. This means that when there is no interaction term between variable samebig4 and IFRS, the accruals are higher. Hence, paired-companies audited by the same big 4 audit firm and using IFRS are not more comparable than paired-companies audited by different big4 audit firm and use IFRS. Thus, the result rejects the hypotheses 1.

Chapter 6: Summary and conclusion

6.1. Conclusion

The purpose of this thesis is to provide evidence that audit style and IFRS have impact on financial comparability. Francis et al. (2014) found that in-house working rules which are defined as audit style, have an effect on financial statement comparability. Additionally, Van Os (2015) found that audit style has higher effect on financial statement comparability, when the standards are principles-based. Since the EU implemented IFRS as accounting standards, followed by other countries globally, the demand for single-set accounting standards has also increased, as well as the need for comparability.

Empirical evidences show that principles-based accounting standards (i.e. IFRS) convey higher comparability and produce more benefits to investors and the capital market (Agoglia et al., 2011; Cascino & Gassen, 2015; Daske et al., 2008; Yip & Young, 2012). Thus, SEC and FASB agreed on a joint project with IASB to develop such single-set accounting standards that could be applied internationally. One further step from this joint project is SEC approval for voluntary IFRS adoption without reconciliation with U.S. GAAP for foreign issuers who are registered in the U.S. Due to this issue, it is interesting to examine whether audit style and IFRS have impact on financial statement comparability.

According to Francis et al. (2014), audit style affects comparability. Van Os (2015) found that auditor-induced comparability is higher under principles-based accounting standards. Additionally, Sin et al. (2015) demonstrated that the audit process is more effective under principles-based accounting standards. Furthermore, according to Kothari et al. (2010), principles-based standards should be in line with working rules. That way, the auditor could develop procedures based on his professional judgement. Considering that audit style seems to affect comparability as well as IFRS, the research question in this thesis was developed as:

Are companies that are audited by big4 audit firms and use IFRS as their accounting standard,s more comparable than companies which are not audited by the same big4 audit firms and use IFRS?

The hypotheses has been examined to answer the research question, with a sample of foreign issuers registered in the U.S., using closeness of accruals to measure the financial statement comparability. Dummy variables are used to capture audit style between paired-companies: 1 if paired companies are audited by same big4 audit firm and 0 otherwise. The same process was adopted to capture the effect of IFRS: 1 if paired companies use IFRS, and

0 otherwise. The result suggests that when paired companies are audited by samebig4 audit firms and use IFRS, the difference accruals are not lower, compared to companies that are audited by different big4 audit firm and do not use IFRS. Hence, the result rejects hypotheses 1.

Although the main result rejects the hypotheses 1, it is noteworthy that in general, the results are in line with the prediction that samebig4 and IFRS would have a negative sign. This means that, audit style and IFRS affect financial statements, notwithstanding the interaction effect. However, there is the possibility that it is not entirely comparability, but rather uniformity, which is but an aspect of comparability.

6.2. Limitations

This study extends that of Francis et al. (2014) study regarding audit style and financial statement comparability, and follows Van Os (2015) regarding impact of audit style on financial statements under principles-based accounting standards. Following these studies, it was examined whether audit style and IFRS have impact on financial statement comparability. Also examined were the interaction between audit style and IFRS, in the sample of foreign issuers that are registered in the U.S. Whether the auditor-induced comparability is indeed comparability rather than uniformity, was not looked into in this study, since, there is also the possibility that audit style affects financial statement comparability because the clients use uniform accounting standards, viz., IFRS, in this research sample.

The sample of foreign issuers in the U.S. is limited in number. Moreover, the adoption of IFRS is voluntary, rather than mandatory in the US. Daske et al. (2008), who conducted additional tests on mandatory adopters and voluntary adopters of IFRS in 26 countries, found that there are different effects on the capital market, as between mandatory and voluntary adopters. They concluded that voluntary adopters have more reporting incentives than mandatory adopters, which caused responsive behavior towards IFRS.

Lastly, this research uses two dummy variables. Additionally, the interaction variable automatically becomes the dummy variable. This makes the 0 value of the dummy variable in regard to the interaction term capturing 3 different values. Thus, each value could interpret the data differently.

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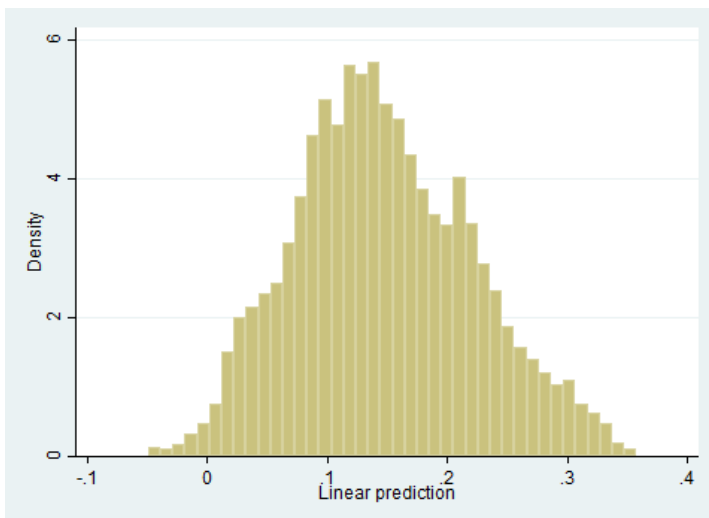
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Appendix

Normality distribution of residuals with difference in abnormal accruals
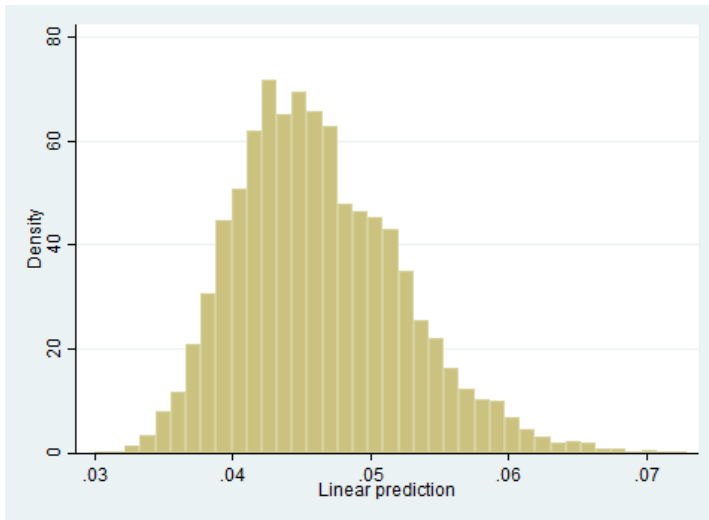
Normality distribution of residuals with difference in total accruals

Pearson-correlation test for multicollinearity

	samebig4	IFRS	samebi4 IFRS	diff_size	diff_MTB ratio	diff_ leverage	min_size	min_MTB ratio	Min_ leverage
samebig4	1.000								
IFRS	0.072	1.0000							
samebig4IFRS	0.835	0.3254	1.0000						
diff_size	0.0013	-0.0212	-0.0175	1.0000					
diff_MTBratio	-0.0078	-0.0840	-0.0443	0.3132	1.0000				
diff_leverage	-0.0441	-0.0560	-0.0808	0.1315	-0.0692	1.0000			
min_size	0.0038	0.0931	0.0329	-0.5392	-0.1116	0.2233	1.0000		
min_MTBratio	0.0185	0.0913	0.0467	-0.1243	-0.3205	0.0066	0.3660	1.000	
min_leverage	-0.0161	-0.0090	-0.0158	-0.2591	-0.1176	0.3721	0.4292	-0.006	1.000

VIF test for multicollinearity (total accruals)

Variable	VIF	1/VIF
samebig4IFRS	4.33	0.230881
samebig4	3.88	0.257820
min_size	2.24	0.446889
diff_size	1.90	0.526832
min_leverage	1.44	0.694875
min_MTBratio	1.42	0.704432
diff_leverage	1.38	0.724815
diff_MTB_ratio	1.35	0.740860
IFRS	1.33	0.749547
Mean VIF	2.14	

VIF test for multicollinearity (abnormal accruals)

Variable	VIF	1/VIF
samebig4IFRS	4.99	0.200584
samebig4	4.50	0.222060
min_size	2.46	0.406889
diff_size	2.01	0.497146
min_MTBratio	1.48	0.675673
min_leverage	1.47	0.679440
diff_leverage	1.37	0.729559
IFRS	1.34	0.749012
diff_MTB_ratio	1.32	0.759912
Mean VIF	2.33	

Breusch-Pagan test for heteroscedasticity (total accruals)

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of diff_abnacc

chi2(1) = 554.52

Prob > chi2 = 0.0000

Breusch-Pagan test for heteroscedasticity (abnormal accruals)

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of diff_totalacc

chi2(1) = 1332.58

Prob > chi2 = 0.0000