UNIVERSITY OF VAASA

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DEPARTMENT OF ACCOUNTING AND FINANCE

Miika Pietilä

DETERMINANTS OF IFRS ADOPTION IN EUROPEAN SMEs

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Author: Miika Pietilä
Topic of the Thesis: Determinants of IFRS adoption in European SMEs
Name of the Supervisor: Anna-Maija Lantto
Degree: Master of Science in Economics and Business Administration
Department: Department of Accounting and Finance
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ABSTRACT

The European Union (EU) introduced a common set of accounting standards in 2005, International Financial Reporting Standards (IFRS) is mandatory for publicly listed companies in Europe and it is widely used around the world for publicly listed companies. Private companies are usually not obliged to adopt IFRS but in most of the European countries are allowed to use IFRS in financial statements. This research is motivated by the debate on the benefits and costs of adopting IFRS. There is not extensive prior research on adoption of IFRS in Small and Medium-sized enterprises (SMEs) in Europe. Majority of companies in EU and the world are SMEs and the voluntary adoption of IFRS is an interesting topic. Previous literature claims that adoption of IFRS increases financial information comparability internationally and nationally and as a consequence the usability and usefulness of financial information. There is also contradicting literature emphasizing the costs and complexity of wider implementation of IFRS over the benefits or presumed enhancements in financial statement quality.

The aim of this research is to find determinants affecting the adoption in the scope of SMEs in Europe. The determinants explaining the choice of accounting policy discussed in this research are *the size of a company, international activities of a company, the profitability of a company, the reputation of the external auditor of a company and operating country of a company.* The research is conducted using a sample of 116 602 companies from 21 European countries. Of the companies in the sample 9.4% report using IFRS while the remaining 90.6% use Domestic Accounting Standards (DAS). The data is analyzed using logistic regression on the adoption of IFRS.

As a result *the operating country of a company, the size of a company* and *the reputation of the auditor* can be seen as factors influencing the adoption of IFRS. For *international activities of a company* and *the profitability of a company* there is statistical evidence on influence but the practical influence is minuscule. The research indicates that it is possible to find factors affecting the adoption of IFRS.

KEYWORDS: IFRS, SME, Accounting Standards, Voluntary Adoption

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ACRONYMS

ARC Accounting Regulatory Committee

AIC Akaike Information Criterion

DAS Domestic Accounting Standards

EC European Commission

EFRAG European Financial Reporting Advisory Group

EU European Union

FAS Finnish Accounting Standards

GAAP Generally Accepted Accounting Policy

GAPSE General Accounting Principles for Smaller Entities *in Malta*

IASB International Accounting Standards Board

IASC International Accounting Standards Committee

IAS International Accounting Standards

IFRIC IFRS Interpretations Committee

IFRS International Financial Reporting Standards

IFRS for SMEs International Financial Reporting Standards for Small and Medium-sized Entities

SME Small and Medium-sized enterprise

US-GAAP United States Generally Accepted Accounting Policy

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1. INTRODUCTION

The European Union (EU) introduced a common set of accounting policies and standards effective from 2005, with the objective of enhancing financial reporting quality and the comparability of entities in EU region. The introduced IFRS were intended for large companies and obligatory for consolidated statements of all publicly traded[1] companies in EU. The regulation allowed member states to decide how to enforce regulation locally on entities not obliged to comply with IFRS.

Unlisted companies account for more than 75% of European GDP (The European Confederation of Directors Associations 2010). In recent years International Accounting Standards Board (IASB) has focused on the accounting standards of entities not covered by IFRS (Nobes 2010). The introduction of International Financial Reporting Standards for Small and Medium-sized Entities (IFRS for SMEs) is one clear signal on regulatory work on broader scope and the incentive to harmonize the accounting standards of more EU entities.

The reasoning behind IFRS adoption is to provide high quality accounting and financial data and enable comparability to enhance the efficient and cost-effective functioning of the capital market (Daske, Hail, Leuz and Verdi 2008). The aim of this study is to analyze the factors affecting on voluntary adoption of IFRS on SMEs in selected European countries.

1.1. Earlier research on IFRS adoption

There is prior research on IFRS adoption focusing on publicly listed companies (Ball and Shivakumar 2005; Burghstahler, Hail and Leuz 2006; Eierle and Haller 2009). Voluntary adoption causes and incentives are not homogeneous between public and private companies (Burghstahler et al. 2006) as for public companies IFRS adoption is mandatory and for private companies it can be voluntary depending on operating country. There is little prior research and literature on reasons upon voluntary adoption of IFRS in the scope of SMEs. Earlier research on private companies show that

[1] i.e. listed

private companies may benefit less than public companies from improved reporting quality as agency problems resulting from separation of ownership and management are less likely to occur (Ball and Shivakumar 2005). On the contrary Eierle et al. (2009) present the evidence of agency conflicts in German private companies. Private companies may have external shareholders who are forced to rely on published financial information while determining the actions and profitability of company.

There is also prior research on contractual incentives to produce high quality financial reports and thus affect the voluntary adoption of IFRS (Francis, Khurana, Martin and Pereira 2008). Adoption of IFRS should improve the comparability of financial statements irrespective the operating country and differences in legislation thereof. This should affect the attitude at financial market and help SMEs to co-operate with international stakeholders. The stakeholders affected are as an example but not limited to investors and creditors. Comparable and high quality financial statements should help in the decision making. Barth, Landsman and Lang (2008) provide evidence on the adoption of IFRS to increase the attractiveness of a company to foreign investors as they are able to monitor the company better. The use of IFRS reduces the level of information asymmetry and facilitates contracting with external parties (Francis et al. 2008).

There is reasonable amount of research on IFRS on public companies and the affects of adoption to the quality and outcome of financial statements. On the contrary there is not much research on IFRS on SMEs or voluntary adoption of IFRS without future obligations. Majority of earlier research is based on voluntary adoption preceding the obligatory enforcement but as the reasons and motives for preceding adoption might differ it is reasonable to research on voluntary adoption without future obligations. Based on earlier research it is viable to assume IFRS can be beneficial for SMEs but the benefits of adoption should outweigh the related costs.

In previous similar research on company specific incentives and country factors explaining the voluntary adoption of IFRS in private companies Francis et al. (2008) used survey data and were limited in sample size and available variables to ones present in the survey and used database. In this research extensive number of companies and desired variables are available.

1.2. Objectives of the thesis

The main objective of this thesis is to find out reasons and factors affecting voluntary IFRS adoption in European SMEs. *Why would companies voluntarily adopt IFRS?* To answer the question the research focuses mainly on European countries where IFRS adoption is allowed for SMEs and try to find factors to explain the accounting standard choice.

While the research focuses on countries where IFRS adoption is allowed it also includes countries where IFRS adoption is permitted with strict limitations and not all companies are allowed to utilize and adopt IFRS. This research tries to explain differences in adopting IFRS over DAS including the consequences and limitations.

1.3. Research methods and restrictions

The research begins by introducing and discussing previous research and the key findings and models of literature. The data used in the research is from worldwide company database with extensive number of companies and variables. The sample of data is limited to around 100 000 companies in certain European countries and determinants are chosen based on literature (Ashbaugh 2001; Bennouri, Nekhili and Touron 2015; Cuijpers and Buijink 2005; Dumontier and Raffournier 1998; Inchausti 1997; Kvaal and Nobes 2010; Matonti and Iuliano 2012; Tarca 2004). The adoption of IFRS is analyzed using logistic regression.

The data is taken as is from the database without extensive further verification. Some verification on data limits the sample to countries where high quality financial information is available at the time of research. There is limited number of European countries included in the research based on data availability.

1.4. Outline of the thesis

This thesis is divided into 6 chapters. The content of each chapter is summarized below.

Chapter 1. is an introduction into the field of IFRS adoption. The background and motivation for the study are given, followed by the objectives, research methods

and restrictions of the thesis. Chapter 2. introduces the background of accounting standards and regulations, users of financial information, IFRS development and the concerns and consequences of voluntary and mandatory IFRS adoption at national and at company level and defines SME. Chapter 3. describes the hypothesis development and the determinants of adoption. Chapter 4. discusses the sample data used in the research and the research design in general and expand further into the findings from statistical analysis and logistic regression. Chapter 5. presents the findings of research discussed with the limitations and further research objectives. Chapter 6. as the final chapter summarizes the theoretical background and the research findings.

2. BACKGROUND

2.1. Accounting regulations

From the 1st of January 2005 EU regulation 1606/2002 requires companies listed on European Stock exchanges to use IFRS on their consolidated statements. The regulation allowed member states to decide whether to require or allow companies of other kind to use IFRS. The objective of the regulation is to unify financial statements and ensure transparency and comparability and to ensure the efficient operation of capital market and internal market within EU. (Council of European Union 2002)

The adoption of IFRS is a substantial change in financial reporting for European companies because many requirements in IFRS differ from regulations in Domestic Accounting Standards (DAS) of European countries (Armstrong, Barth, Jagolinzer and Riedl 2010). The adoption of IFRS in Europe is the result of the goal of EU to achieve capital market integration (Armstrong et al. 2010). It requires companies to apply IFRS which are issued by a private-sector standard setter, the IASB, but the European Commission (EC) must endorse the standards before they are required at the EU level (Armstrong et al. 2010). The EC preserves the power to reject any standard or part of a standards that does not meet its criteria (Armstrong et al. 2010). The three primary criteria are: the standard is not contrary to the EU's true and fair principle; the standard meets the criteria of understandability, relevance, reliability, and comparability; and adopting the standard is in the European public interest (Armstrong et al. 2010).

The EU endorsement process on accounting regulations is described next (Brackney and Witmer 2005): *The IASB develops IFRS in accordance with due process procedures outlined in its governing constitution (International Accounting Standards Board (IASB) 2006). This process involves public meetings and extensive input from interested parties around the world. Among these is the European Financial Reporting Advisory Group (EFRAG), a private-sector organization comprised of accounting experts from the EU, which provides advice to the EC regarding technical accounting matters. After the IASB issues a standard, EFRAG reviews it and, after*

public consultation, EFRAG decides whether to recommend that the EC endorse the standard for use in Europe. Taking EFRAG's advice into account, the EC drafts proposed regulation. The EC then seeks input from the Accounting Regulatory Committee (ARC). The ARC, a governmental organization comprised of representatives from each EU member state, reviews the regulation and provides its recommendation about adoption in the EU. The ARC considers the technical merits of the standard as expressed in EFRAG's recommendation letter, as well as the implications of the standard for the European public interest. If the ARC recommends endorsement, then the EC decides whether to endorse the standard, as written by the IASB or as amended, or to reject it. If endorsed, the standard becomes regulation applicable to firms in the EU. If the ARC recommends rejection of the standard, then the EC can ask EFRAG to consider it further, or send it to the European Parliament for a decision.

IFRS adoption in 2005 resulted in a broad cross-section of companies domiciled in European countries with a variety of domestic accounting standards changing to a common set of standards at the same time (Armstrong et al. 2010). The consequences of adopting IFRS over DAS are questioned in research and during the initial adoption in 2005 the debate on whether the benefits of the expected increase in capital flows would outweigh the costs of implementation and loss of diversity in DAS was substantial (Armstrong et al. 2010). There is extensive research on consequences but the research topic is challenging because of the lack of comparison results and lack of groups of non-adopters (Hail, Leuz and Wysocki 2010b).

European companies have previously followed wide variety of DAS that greatly differed from IFRS (Soderstrom and Sun 2007). IFRS are based on Anglo-Saxon reporting standards base and thus in countries where differences between DAS and IFRS are less significant are not affected so heavily on adopting IFRS than countries where DAS differ more extensively (Bae, Hongping and Welker 2008). The Commission of the European Communities recognized the need to increase the financial reporting harmonization in the EU in 1995 to go beyond the level achieved by the European Accounting Directives (Cuijpers et al. 2005: 490).

The introduction of IFRS to publicly listed companies unified the accounting policies among companies. Soderstrom et al. (2007) find that the international accounting literature has generally found a positive impact from the voluntary adoption of better accounting principles, IFRS included. Soderstrom et al. (2007) emphasize the differences between mandatory and voluntary adoption and research on either

one cannot be fully generalized to cover the other aspect but argues on three factors affecting reporting quality after adoption: (1) the quality of the standards; (2) a country's legal and political system; and (3) financial reporting incentives and show that country's legal and political systems have an indirect effect on reporting quality. Adoption of IFRS allows for greater quality on financial research as unified standards and policies account for the basis of information (Schipper 2005).

Companies operating in the EU can use non-local Generally Accepted Accounting Policy (GAAP) in numerous ways and still fulfill the DAS regulations. Cuijpers et al. (2005: 490) express four different ways for companies to comply with regulations of DAS and provide reports using IFRS. First is the most extreme option to provide two separate sets of financial statements: one using DAS and another using IFRS. Second option is to report in compliance with IFRS and provide a reconciliation for DAS. Third option for some companies is to use the allowance in DAS and choose accounting measurement options in DAS in accordance with IFRS and provide additional information and disclosures on that may be required by IFRS. The fourth option if allowed by local regulators is that companies can provide financial statements solely in accordance with IFRS. (Cuijpers et al. 2005: 490)

On research on whether the adoption of IFRS leads to capital market benefits through an increase in financial statement comparability Brochet, Jagolinzer and Riedl (2013) find evidence using UK company sample on decrease on abnormal returns on insider transactions and thus argued that adoption of IFRS leads to reduced private information being accessible to insiders. There is clear evidence on financial statement positive development and benefits also in countries where the local GAAP does not differ substantially from IFRS in addition to the benefits of adopting IFRS in countries where the difference is significant (Brochet et al. 2013).

Despite the extensive evidence on the benefits of adoption of IFRS, research evidence is also contracting. Christensen, Hail and Leuz (2013) show that across all countries mandatory IFRS reporting had little impact on liquidity as the liquidity effects are concentrated in the countries and companies of EU. The benefits usually found on financial markets on the adoption of IFRS could be the concurrent result of enforcement in reporting financial statements (Christensen, Hail et al. 2013). Christensen, Hail et al. (2013) find no evidence on liquidity benefits in non-EU countries even when they have strong legal systems or a strong track record of implementing regulation. Concurrent changes in enforcement of regulation can be seen as an important candidate for an omitted determinant in research prior to

Christensen, Hail et al. (2013) and as they suggest reporting enforcement is a major factor affecting the observed liquidity effects. Schipper (2005) states that significant jurisdiction-specific differences in incentives facing preparers will continue to exist but the adoption of IFRS offers the opportunity to revisit questions pertaining to the relative importance of standards versus incentives in determining financial reporting outcomes.

The work load related to the adoption of IFRS differs among the entities depending on their operating country. As an example Finland and Finnish Accounting Standards (FAS) is presented to be one with most differences between IFRS and DAS as stated in research where in a sample of 49 countries Finland had 16 differences out of 21 possible differences and Anglo-Saxon settings report below 4 differences (Bae et al. 2008). In some other countries where DAS differ extensively from IFRS entities are not allowed the possibility to choose on whether to adopt IFRS (Schmid, Martino and Wu 2015).

Schipper (2005) conjectures that the adoption[1] of IFRS may shift the behavior of managers who wish to reduce or avoid the volatility of reported results that tends to accompany fair value measurements. Managers may seek additional effective hedges and this may have implications for financial reporting and disclosure generally (Schipper 2005).

2.2. Development of IFRS

International Accounting Standards Committee (IASC) was established in 1973 to develop and publish a single set of global financial reporting standards and published International Accounting Standards (IAS). Since 2001 IASC has been superseded by IASB and issuing IFRS regulation to replace and enhance former IAS regulation (Nobes and Parker 2006: 78-80). In the early phase, the standards and regulations were general in nature and based on current practices thus allowing country specific special regulations and differences. IFRS now are stricter and unambiguous to make sure comparison between entities in different countries is possible and effective (Gordon, Roberts and Weetman 2006: 25-28).

IFRS Interpretations Committee (IFRIC) is the interpretative body of the IFRS Foundation. The mandate of IFRIC is to review on a timely basis widespread

[1] In particular, IAS 39's many fair value measurement requirements.

accounting issues that have arisen within the context of the current IFRS and give interpretations on newly identified reporting issues not specifically dealt within IFRS and issues where unsatisfactory or conflicting interpretations have developed or seem likely to develop in the absence of authoritative guidance (IFRS 2009).

IFRS is a collection of European standards and guides but it is in use also outside Europe (Daske, Hail, Leuz and Verdi 2013). Companies operating internationally or companies listed in multiple stock markets may be required to report financial statements using DAS but the aim of IFRS is to simplify the accounting practices and reporting in this kind of situation (Salmi 2012: 97-98). International operations could be one factor affecting voluntary adoption. Voluntary IFRS adoption can be affected by the differences between local laws and regulations in conjunction with taxation. Taxation can be based on financial reports used to determine profit calculations and taxes and IFRS can be unable to take into account local differences and practices (Jermakowicz, Reinstein and Churyk 2014: 291).

IFRS is seen as the basis of international financial reporting regulations for financial statements and especially for listed companies it is more and more difficult to avoid IFRS reporting (Jermakowicz, Reinstein et al. 2014). IFRS is now used in over 100 countries including Canada, Russia and European Union member states (Daske et al. 2013). In large number of countries publicly traded companies are required to follow IFRS regulations and in some countries companies can choose to adopt IFRS regulations in their financial reporting (Daske et al. 2013).

2.3. Continental European accounting compared to IFRS

The majority of European countries where IFRS is now being adopted have traditionally been classified as those where financial accounting is designated to serve creditors and fulfill taxation purposes: the so-called *continental European accounting* (Lantto 2014: 15). Governments had established or controlled the Domestic Accounting Standards (DAS) and accounting had mostly been used for governmental purposes and financial statements had been dominated by tax rules in these countries (Lantto 2014: 15). International Financial Reporting Standards (IFRS) regulations have been classified as so-called *Anglo-Saxon accounting* which emphasizes the importance of equity markets, relevant information on the performance and assessment of future cash flows for decision-making purposes (Lantto 2014: 15).

In relation to taxation purposes DAS of European countries require different accounting and reporting standards and reporting treatment from IFRS in the following areas: employee benefits obligations (IAS19), deferred tax (IAS 12), intangible assets (IAS 38), construction contracts (IAS 11), inventories (IAS 2), leases (IAS 17), and share-based payments (IFRS 2) (Lantto and Sahlström 2009: 344). Also in comparison to DAS of European countries IFRS allows or requires fair value accounting in the following areas: property, plant and equipment (IAS 16), impairment of assets (IAS 36), financial instruments (IAS 39), investment property (IAS 40), share-based payments (IFRS 2), biological assets (IAS 41) and pension assets and liabilities (IAS 19) (Lantto and Sahlström 2009: 345).

As an example of differences in IFRS and DAS IAS 19 requires employee benefit obligations to be measured at present value in contrary to missing from DAS in e.g. Belgium, Denmark, Finland, France, Greece, Italy and Luxembourg or the calculations follow tax regulations in accordance with DAS as in Austria and Germany, for instance (Lantto and Sahlström 2009). The differences in employee benefit measurements is interesting factor potentially affecting IFRS adoption but it is not discussed further in this research.

IAS 12 requires deferred tax liability to be recognized for all taxable temporary differences but rules concerning the treatment of deferred tax are missing from DAS in e.g. Greece, Luxembourg and Portugal or deferred tax can be calculated on the basis of timing differences rather than temporary difference in e.g. Austria, Belgium, Finland, Germany, Italy and Switzerland (Lantto and Sahlström 2009). Deferred tax assets are not needed to be recognized in accordance with many DAS while IAS 12 requires a deferred tax asset to be recognized for all deductible temporary differences to the extent that is probable that the deductible temporary difference can be utilized (Lantto and Sahlström 2009: 345).

IAS 38 states that an asset can be recognized when it will probably create future benefits and when the cost can be precisely measured, therefore items such as research expenses cannot be capitalized according to IFRS (Lantto and Sahlström 2009). In many countries DAS allows research costs or certain other internally generated intangible assets to be capitalized but the capitalization might differ between IFRS and DAS (Lantto and Sahlström 2009). IAS 11 requires the costs and revenues of construction contracts to be recognized on stage of completion basis but in many DAS the stage of completion recognition is not mandatory (Lantto and Sahlström 2009). IAS 2 requires inventory to be measured at the lower of the cost

and net realizable value. DAS may allow or require inventories to be measured at the replacement cost instead of net realizable value or cost (Lantto and Sahlström 2009). DAS can allow inventories to be measured without production overheads but IAS 2 requires inventory to be valued at full cost (Lantto and Sahlström 2009). IAS 17 requires leases to be accounted for and presented in accordance with their substance and economic reality based on concept named substance over form but DAS does not include rules for leases, does not require rules to be followed or leases are accounted based on tax rules (Lantto and Sahlström 2009).

IFRS 2 requires a company to disclose the effects of share-based payment transactions as it is not the case in DAS where it is typical that transactions in which share options are granted to employees are not recognized in financial statements (Lantto and Sahlström 2009). IFRS emphasize fair value accounting to provide more information to be used by investors. IFRS requires assets and intangible assets impairments to fair value (IAS 36/IAS 38), requires fair value for most financial instruments (IAS 39) and for biological assets (IAS 41) (Lantto and Sahlström 2009). IFRS requires tangible and intangible fixed assets that have been acquired in a business combination (IFRS 3), pension assets (IAS 19) and share-based payment liabilities (IFRS 2) to be measured at fair value (Lantto and Sahlström 2009). After initial recognition IFRS allows investment property (IAS 40) and property, plant and equipment (IAS 16) to be measured at fair value (Lantto and Sahlström 2009).

As provided above DAS and IFRS differ substantially in certain aspects. Adoption of IFRS causes excess of extra workload to company to comply with IFRS regulations and at the same time comply with domestic legislation and rules e.g. taxation accounting rules.

2.4. Small and Medium-Sized Enterprises

Small and Medium-sized enterprise (SME) is a definition of company size. The definition can vary within the national legislation of European countries but EU Commission recommendation 2003/361/EC defines SME in relation to staff headcount and either turnover or balance sheet total as described in the table 1 (European Commission 2003). According to the recommendation company is categorized as medium-sized if staff headcount is less than 250 and turnover is less or equal to 50 m€ or balance sheet total is equal or less than 43 m€. Company is considered as small if staff headcount is less than 50 and turnover is less or equal to 10 m€ or

balance sheet total is less or equal to 10 m€. Within the recommendation is also a category for micro-sized companies based on the same properties. Company is micro-sized if staff headcount is less than 10 and turnover is less or equal to 2 m€ or balance sheet total is less or equal to 2 m€. In this research SME does not include micro-sized companies.

Table 1: Definition of company categories by size

Company category	Staff headcount	Turnover	or	Balance sheet total
Medium-sized	<250	≤50m€		≤43m€
Small	<50	≤10m€		≤10m€
Micro	<10	≤2m€		≤2m€

There are over 20 million Small and Medium-sized enterprises (SMEs) in Europe employing about two-thirds of the workforce and create 85% of new jobs in Europe thus accountable significantly on innovation and growth (European Commission 2013a). Following the "think small first" principle the EC has focused on SMEs in the regulatory agenda to help job creation and growth in Europe (European Commission 2013a). SMEs have identified the top 10 most burdensome EU laws impending jobs and growth and areas where further analysis should be taken (European Commission 2013a). EC published results on burdens in March 2013 and the biggest difficulties and costs regarding the legislation were as follows: the rules regarding the REACH chemical legislation, value added tax, product safety, recognition of professional qualifications, data protection, waste legislation, labor market related legislation, recording equipment for road transport, public procurement and the modernized customs code (European Commission 2013a). In professional qualifications, data protection and procurement as an example are areas where EC had already taken measures in March 2013 to address the arisen issues and burdens (European Commission 2013a). The focus on SMEs includes exemptions and lighter regimes for SMEs proposed by the EC and adopted by the EU legislator (European Commission 2013a).

SMEs differ in at least one material aspect from other enterprises as SMEs have lower number of contract partners than public companies (Fülbier and Gassen 2010). A public company may interact with hundreds of thousands of shareholders and due to the nature of stock market the individual shareholders trade anonymously and maintain a distant relationship to the company (Fülbier et al. 2010: 22). In public

companies owner-related principal agent conflicts can arise from the separation of ownership and management (Fülbier et al. 2010). In sole proprietor, a single entrepreneur bundles all individual contracts personally and is the exclusive owner and simultaneously the responsible manager of the company without any owner-related agency conflicts (Fülbier et al. 2010).

2.5. IFRS for SMEs

International Accounting Standards Board (IASB) published in July 2009 self contained and comprehensive accounting standards for SMEs, the IFRS for SMEs regulations. The standards were constructed during an extensive development process to address the challenges posed to SMEs in utilizing the full IFRS regulations. The aim of the IFRS for SMEs is to provide less extensive regulations but still supply the users of financial statements of higher quality and globally comparable information, to enhance the expected quality of financial statements of SMEs and to lessen the costs of maintaining country specific accounting standards. IFRS for SMEs is not yet utilized effectively in EU and there are no upper or lower limits of small or mediums sized entities in the standard. (Leppiniemi and Walden 2014: 56-57)

The objective of IASB issuing IFRS for SMEs was to provide SMEs the possibility to provide globally recognizable financial statements and to help SMEs in the globalized of financial markets to gain access to finance (Chand, Patel and White 2015). Devi and Samujh (2015) argue the challenges in adopting IFRS for SMEs as national factors affecting the adoption can not be fully utilized in the standard and thus causing SMEs extensive excess workloads. The benefit for SMEs to adopt IFRS for SMEs is the increased confidence in their reports (Bunea-Bontaş, Petre and Petroianu 2011). Fülbier et al. (2010) in study on the accounting principles of European SMEs in relation to IFRS for SMEs did not find supporting evidence on the mandatory adoption of IFRS for SMEs in Europe as the fundamental properties of European privately owned SMEs differ from country to country based on e.g. legislation, contractual situation and cultural differences.

On research on the adoption of IFRS for SMEs in a sample of companies from Fiji, Chand, Patel and White (2015) discuss the problematic nature of implementing one global accounting standard to cover all different cultural aspects and address the challenges of IASB to in other end lessen the regulations and in other end give more comprehensive guidance and regulation on aspects on financial regulations. One

of the main concerns of Chand, Patel and White (2015) is the diversity in social, economic and legal structures in the areas IFRS for SMEs is used and the inability of IASB to develop cost efficient standards taken those into account.

The IFRS for SMEs is not yet widely adopted on national level and even if it might be allowed the legislative requirements causes challenges in adoption. In this research the focus is on full IFRS adopters and not on IFRS for SMEs.

2.6. Users of Financial Information

The users of accounting information can be categorized as *direct users* and *indirect users*. Belkaoui (1992) presents owners, creditors and suppliers, management of the company, taxing authorities, employees in an organization and customers as direct users and financial analysts and advisers, stock exchanges, lawyers, regulatory or registration authorities, the financial press and reporting agencies, trade associations, labor unions, competitors, the general public and governmental departments as indirect users.

In a study of Belgian listed and non-listed companies on the users of financial statements Cole, Breesch and Branson (2009) find evidence on suppliers, competitors, consultants and customers being underestimated user groups. The financial statement users of non-listed companies tend to consult more financial statements, but spend less time per statement and focus mainly on companies located in their own home country (Cole et al. 2009). There are no clear differences in the information needs of the users of listed or non-listed companies, but more difference in the information needs of different users such as shareholders, suppliers, customers, consultants and competitors (Cole et al. 2009). Major financial stakeholders might have close relationships with the SMEs they have invested in (Chand, Patel and White 2015). Cole et al. (2009) find that the main users of financial statements of non-listed companies are management, shareholders and accountants.

The users of financial statements of SMEs require different kind of disclosure than larger companies as debt-holders and other stakeholders may be able to monitor the financial status of company via personal and direct contacts based on the smaller size and simpler structure of SME (Chand, Patel and White 2015). The lack of transparency in the financial statements of SMEs might not be a significant issue (Chand, Patel and White 2015). Cole et al. (2009) recommend based on their re-

search that full differentiation of listed and non-listed companies financial reporting standards is undesirable as the differences between the information needs of these users are limited. There is usually information gap as the need for information is not the same as the demanded information caused by the inability of information user to specify the actual demanded information but to require information it thinks it needs (Kotler, Lane Keller, Brady, Goodman and Hansen 2012). Understanding what information is not relevant is as beneficiary as it is to list information needs (Choo 2002: 28).

In the research on Belgian companies and users Cole et al. (2009) find clear country preference but also state that because of the national nature of research the results cannot be extrapolated to all users in all countries. Country preference might be affected by standards as during the research listed companies were stipulated to provide financial statements following IFRS regulation and non-listed were required to provide using DAS (Cole et al. 2009). Standard setters view shareholders and analysts as the most important users and adapt the financial statements to their needs, making financial statements less useful for other user groups (Cole et al. 2009).

2.7. Adoption of IFRS

2.7.1. National level

Adoption of IFRS on a national level can be categorized into three levels of either *require IFRS*, *permit IFRS* or *do not allow IFRS* (Alon and Dwyer 2014). On national aspects countries with a greater need for resources were susceptible to transnational pressures and were the early adopters of IFRS (Alon et al. 2014). Those countries were also more likely to require IFRS as compared to countries with more developed economies and stronger regulation structures (Alon et al. 2014).

Ball (2006) argues the uniform reporting worldwide seems like a great virtue and there is no doubt that in an increasingly globalized world at least some convergence of standards seems desirable and also inevitable but the global unification of rules and regulations addresses also some concerns. Unified international rules is leap of faith as there is no experience or academic research on them (Ball 2006). Countries have different motivations and incentives on adopting IFRS and on influencing international standards to suit best into their economical and political infrastructure

towards their respective goals (Hail et al. 2010b). The academic research situation has changed in the past 10 years since the Ball (2006) research but as IFRS is not yet globally the one and only accounting standard there are still unknown areas that need more experience and research. Ball (2006) points out also the concern on IFRS emphasizing the fair value accounting especially in relation to lesser-developed countries. For companies different national settings provide different contractual, regulatory and legal environments and may cause or justify different financial accounting principles (Fülbier et al. 2010). One point to take into account is that the incentives of preparers (managers) and enforcers (auditors, legislative parties, regulators, politicians) are and will remain mainly local and inevitably will create differences in financial reporting quality (Ball 2006). Another thing pointed out is the lowest-quality reporting regimes ability and possibility to be attracted to the free use of the IFRS brand name as it is essentially costless to say one has the highest standards (Ball 2006). Ball (2006) also points out the competition and political issues as uniform international standards reduce competition among system and the probability of creating a politicized, polarized or bureaucratic body.

Culture, institutions and accounting are related to and influence each other thus creating more challenging surroundings of adopting new accounting practices (Cieslewicz 2014). Institutions are affected by the economic culture of the operators and maintainers of those institutions, accounting is influenced by the institutions and culture influences institutions (Cieslewicz 2014). Adoption of IFRS on a national level has political consequences as a signal to comply and co-operate internationally (Hail et al. 2010b). For the quality of corporate reporting the importance of accounting standards is more limited than thought as other supporting institutions affect the reporting outcomes (Hail, Leuz and Wysocki 2010a). Accounting practices are influenced by underlying economics and managerial reporting incentives and the enforcement of standards and not only the accounting standards themselves (Hail et al. 2010a).

Internationalization of companies might have bigger influence on accounting policies and some of the practices might have been converged as a result of that, even before the adoption of IFRS (Lueg, Punda and Burkert 2014). Implementing and adopting IFRS cannot be considered as an isolated change independent of the other institutional elements of a country as in well-functioning economies the key elements of the institutional infrastructure fit and reinforce each other (Hail et al. 2010a). The change in one element e.g. the accounting standards may lead to undesired outcome for the economy as a whole even if the change improves the element itself (Hail et al.

2010a). Several countries around the world have revised their accounting regulations taken into account IFRS requirements and regulations (Daske et al. 2008: 43).

Nationalism is a cultural factor that may contribute to protectionism, national isolationism and abstention from international economic relations and political alliances (Mayda and Rodrik 2005). In Alon et al. (2014) research more nationalistic countries were expected to resist the adoption of IFRS but the highest levels of nationalism were observed at the two extremes of IFRS adoption. The highest levels of nationalism were observed in countries that do not allow IFRS and the second highest levels were observed in countries that require to use IFRS. Alon et al. (2014) found that IFRS was more likely to be required by countries where there is greater transnational resource dependence. In research using 103 Chinese B-share companies during the 2001 Chinese accounting reform the decline in earnings difference between companies financial statements under IFRS and Chinese GAAP is not the result of differences in standards but the implementation of national compulsory policy in 2001 and audit committee effectively controlling the application of standards (Jean Jinghan and Haitao 2010). Jean Jinghan et al. (2010) discuss the adoption of IFRS as a fix for the underdeveloped DAS but adopting IFRS does not necessarily lead to IFRS accounting policies, pointing out the challenges on adopting of IFRS on national level without the necessary change in the infrastructure and national attitudes.

2.7.2. Company level

On the company level, moving from DAS to IFRS is usually not a simple process. Switching can impact greatly on financial statement balances and financial ratios and implementing IFRS financial statements requires extensive and sound knowledge on both IFRS and DAS to understand the impact of change and requirements for accounting (Jermakowicz, Reinstein et al. 2014). Companies underestimate the costs and effects and complexity of IFRS adoption (Hoogendoorn 2006). Hail et al. (2010a) identify both transitional and recurring costs from adoption of IFRS but also recurring cost savings for multinational companies as they can use a single reporting system for their operations.

Adopting IFRS in a company does not automatically provide better quality financial statements or more descriptive financial information (Jones and Higgins 2006). Financial statement reported according to IFRS gives a better view on future cash flows (Jarva and Lantto 2012). Jarva et al. (2012) do not find evidence on better

quality financial statements on companies adopting IFRS obligatorily and did not research on companies adopting IFRS voluntarily.

The implementation of IFRS would reduce the information asymmetry between informed and uninformed investors (Bushman and Smith 2001). Lower information asymmetry would also lead to lower costs in issuing equity capital (Diamond and Verrecchia 1991) and debt (Botosan and Plumlee 2002). Reducing the information asymmetry and enabling greater comparability the adoption of IFRS results in an increase in market liquidity and reduce the cost of capital (Daske et al. 2008; Hail et al. 2010a). IFRS does not guarantee the comparability of different companies and their financial disclosures neither within a country nor across countries as even when the enforcement of standards is very high the incentives of companies reporting differ (Hail et al. 2010a). As long as the reporting incentives vary it should be noted that comparability of reporting practices is unlikely (Hail et al. 2010a).

In a study on market reaction on adoption of IFRS in Europe, there is incrementally positive reaction for companies with lower quality pre-adoption information and with higher pre-adoption information asymmetry as investors expect net information quality benefits from IFRS adoption (Armstrong et al. 2010). The use of IFRS will also lead to lower information asymmetry and cost of capital (Leuz and Verrecchia 2000). Transition to IFRS can be seen as positive impulse on markets and be favorable regarding equity issuance of a company (Lueg et al. 2014). It would be easier for companies implementing IFRS to obtain debt and equity capital (El-Gazzar, Finn and Jacob 1999). Daske et al. (2008) argue voluntary adoption of IFRS prior to the mandatory adoption to experience positive liquidity and valuation effects. IFRS implementation standardizes the accounting practice and reduces the information asymmetry and the scope for earnings manipulation, thereby enhancing stock market efficiency (Iatridis 2010).

There is no clear evidence on the adoption of new accounting standards effect on capital market and not all countries and companies see the benefits of adopting IFRS and more importantly it is difficult to attribute the documented effects to the adoption of new accounting standards (Hail et al. 2010a). Barth et al. (2008) research on companies adopting IFRS in 21 countries on accounting quality finds evidence on less earnings management, more timely loss recognition and more value relevance of accounting amounts than companies applying DAS. A study covering European listed companies just before the mandatory adoption of IFRS point out the regulatory problems in relation to national regulations and IFRS regulations as

a burden for the adoption and most of the companies would not have adopted IFRS voluntarily (Jermakowicz and Gornik-Tomaszewski 2006).

Financial reporting disclosure process reduces information asymmetry between management and external stakeholders such as owners, capital market investors, creditors and tax authorities (Christensen and Demski 2003). Ashbaugh (2001) researched non-US companies listed on the London stock market and the factors associated with non-US companies voluntarily reporting financial information according to IFRS or United States Generally Accepted Accounting Policy (US-GAAP). Ashbaugh (2001) found determinants for companies that are more likely to disclose IFRS or US-GAAP financial information instead of DAS or in addition to DAS. Companies adopt IFRS when by doing so the companies can provide more standardized accounting information compared to DAS (Ashbaugh 2001). A company needs to understand the information needs and usage to be able to understand what information is actually required for decision making (Choo 2002: 26). Companies are more likely to adopt IFRS when their shares are traded in more foreign equity markets or when companies plan paid-in capital increases (Ashbaugh 2001).

The reasons for adoption of IFRS differ between companies. Research on listed European companies find that majority of companies are implementing IFRS regulations for more than just consolidated statement with an ultimate goal of achieving harmonization of internal and external reporting (Jermakowicz and Gornik-Tomaszewski 2006). One of the most important factors motivating companies to adopt IFRS is the rapid worldwide economic integration and as a result the increase in cross-border capital flows (Cuijpers et al. 2005: 489).

2.7.3. Mandatory adoption

On mandatory IFRS adoption Daske et al. (2008) find modest but significant capital-market benefits around the introduction of IFRS. Li (2010) states that on average mandatory adopters do gain a significant reduction in the cost of equity after mandatory IFRS adoption but voluntary adopters do not experience any significant change in the cost of equity after the introduction of mandatory IFRS adoption in 2005. Mandatory IFRS adoption has a significant cost of equity impact only in countries with strong accounting regulation enforcement and quality of legal enforcement is an important factor for effective accounting changes (Li 2010).

Daske et al. (2008: 43) point out the question which other factors play a role among the IFRS adoption as their documented capital-market effects cannot be attributed solely to the new reporting standards. Consistent with other research findings Li (2010) points out increased disclosure and enhanced comparability as factors affecting cost of equity after mandatory IFRS adoption.

2.7.4. Voluntary adoption

Kim and Shi (2012) find in research on listed companies that voluntary IFRS adopters incorporate more company-specific information into stock prices than non-adopters even after controlling for all other factors including analyst following, accounting opacity, reporting frequency, cross-listing and differences between DAS and IFRS. Result indicates that adoption of IFRS is perceived on the market as a commitment to enhanced disclosure (Kim et al. 2012). The results are based on data over seven years[1] before the obligatory enforcement for IFRS required companies to adopt IFRS and thus companies adopting IFRS during those years can be classified as voluntary adopters. The reasons and motivations for listed companies can differ from the ones among private companies in voluntary adoption scope as listed companies knew about the future obligatory requirement.

In research on a sample of Borsa Istanbul listed companies it is shown that companies voluntarily adopting IFRS prior to mandatory adoption in 2005 have higher scores on transparency and disclosure and also the mandatory adoption of IFRS increasing the score on transparency and disclosure (Aksu and Espahbodi 2016). An incentive for companies to voluntarily adopt IFRS could be the achieved increase in transparency and disclosure scores. In a sample of German companies during 1998–2004 voluntary adoption of IFRS is influenced by size, international exposure and dispersion of ownership (Gassen and Sellhorn 2006).

Lee, Kang and Cho (2015) have researched financial implications on the voluntary adoption of IFRS in a sample of Korean companies with focus on earnings quality and cost of debt. Korean unlisted companies mostly apply Korean GAAP instead of IFRS because of higher cost on applying IFRS but research show that companies adopting IFRS benefit from lower cost of debt (Lee et al. 2015). Lee et al. (2015) also argument higher earnings quality of IFRS adopters over DAS adopters. Volun-

[1] from 1998 through 2004

tary IFRS adoption is a decision done by management and according to Watts and Zimmerman (1990) the decision is either because: *"(1) this discretion increases the wealth of all contracting parties, or (2) the exercised discretion makes the manager better off at the expense of some other contracting party"*. Nation wide voluntary adopting of IFRS can affect the overall transparency of nation's capital market and create more transparency and higher creditability on national level (Lee et al. 2015).

2.7.5. Concerns

The adoption of IFRS raises several common concerns among implementing companies and countries. During the mandatory adoption of IFRS in 2005 some people noted that IFRS adoption represents a substantial and extensive change in many companies to the extent of which was not fully appreciated (Brown and Tarca 2005). Concerns on adopting IFRS included also time and resource constraints and lack of sufficient IFRS expertise (Brown et al. 2005). The widespread adoption of IFRS by IASB puts IASB into powerful and possibly even monopoly position on financial statement development (Hail et al. 2010b). Monopolies usually slow down progress, curb innovation and are subject to political lobbying (Hail et al. 2010b). Global adoption of IFRS is an economic and political experience and only time will tell what are the advantages and disadvantages of global accounting standards (Ball 2006). IFRS might not be better than DAS (Jarva et al. 2012).

Small companies tend to overestimate the benefits of implementing IFRS for SMEs and underestimate the costs, perhaps due to possibly lower level of competence and information in the company (Eierle et al. 2009). Same estimation errors might be present when implementing full IFRS. In study of Australian companies it was clear that the costs of converting to IFRS are significant for most respondent companies, but the benefits of adoption were far less clear (Jones et al. 2006). Adoption of IFRS will establish new challenges in accounting because IFRS regulations are more principle-based and thus require greater knowledge and comprehensive understanding of the business (Schipper 2005). The principle-based nature of IFRS in comparison to rule-based DAS brings about a number of fundamental changes in the backgrounds and skills of accountants and auditors (Carmona and Trombetta 2008). Accountants are becoming or have become rule checkers applying the DAS declarations and clarifications rather than using their knowledge as to what is a fair presentation of financial statement (Carmona et al. 2008). Far too many CEOs

regard the annual audit as a commodity required by government rather than an exercise that has essential value (Carmona et al. 2008).

An important principal-agent relationship can be identified for example between creditors (principal) who provide financing and the entrepreneur (agent) who runs the business and has insider information (Fülbier et al. 2010). Financial accounting and disclosure is to lessen the gap and to provide a safeguard for both parties as information asymmetry is reduced (Fülbier et al. 2010). Generally this information reduces the information asymmetry between individuals who contribute resources (principals) and the entity, either the entrepreneur or management (agent) as the representative of a company (Jensen and Meckling 1976). European privately owned companies face different legislation, contractual environment and culture and thus the properties of companies differ a lot and are less likely to face problems of principal theory (Fülbier et al. 2010).

Eierle et al. (2009) find contractual evidence on principal-agent conflict and find the existence of conflict also in SMEs. In the study of German companies Eierle et al. (2009) find support on argument that there is in general no significant difference in the assessment of accounting methods between companies of different sizes and thus IFRS regulation is suitable for all types of companies without regard of their size or the industry they belong to. The contracting findings may be results of different legislation and owner structure or some other factor affecting the studies conducted. Independent external auditor or other enforcement elements are often introduced as validation authority to principle-agent relations (Fülbier et al. 2010).

Throughout the world, the culture and policies on enforcing IFRS or quality of decision on financial statement disclosures vary and as there is no strict international influence to enforce it should be noted that IFRS may not carry the same connotations (Cieslewicz 2014). Development of national accounting standards is affected by legal, governmental, socio-economic and cultural aspects and it is possible to group nations and accounting policies based on these factors (Gray 1988). International influence e.g. colonization, war, international operations and investments and existence of large multinational accounting companies affect the development of accounting standards (Gray 1988). In this research country specific factors and influence of large auditing companies are of interest.

The consequences of IFRS adoption differ in prior research depending on urge of adoption and from research to research. Research has distinguished between voluntary adoption of IFRS before 2005 and mandatory adoption from 2005. The conflict-

ing results in previous literature address the challenges in international accounting research and cross-national co-authorship is seen as a means of better taking into account different local aspects and cultural differences in accounting to mitigate the effect of national factors in accounting research (Meek and Thomas 2004).

2.8. Consequences of adoption

The reasoning behind the utilization of IFRS is the need to compare entities in different countries as European Union is enforcing the free movement of capital, people, goods and services (Salmi 2012: 97). Within EU there are tens of different accounting standards and regulations and there is the need to streamline and unify regulations (Salmi 2012: 97). Simplified reasons for differences in international accounting regulations are external environment, culture, institutional structures and accounting practices. More detailed reasons add legislation, taxation, financial market and inflation to reason the differences in accounting (Nobes and Parker 2006: 46-47). The financial market is affected by the ownership structure of company and possess demands on accounting and financial reporting (Nobes and Parker 2006: 37). In 2015 IFRS can be used by most of the private companies in all European countries with some country exceptions where IFRS is not permitted (Schmid et al. 2015). In some European countries[1] IFRS is enforced strictly and all companies are required to use either IFRS of IFRS for SMEs for their reporting (Schmid et al. 2015).

The DAS of majority of countries adopting IFRS have traditionally used reporting for taxation and to serve creditors (Nobes 1998). Jermakowicz, Prather-Kinsey and Wulf (2007) state as an example German accounting rules being developed to satisfy the needs of stakeholders such as governments, owners, employees and creditors. As DAS has been used as the basis of taxation it might be possible for a company to use the flexibility of DAS in comparison to stricter IFRS to minimize the taxable income (Guenther and Young 2000). The IFRS is generated for the purpose of providing relevant information and to inform shareholder on future cash flows and performance to support decision making (Jermakowicz, Prather-Kinsey et al. 2007; Nobes 1998).

[1] i.e. Cyprus, Montenegro, Serbia

2.9. Differences in national regulations

Directive 2013/34/EU of *the European Parliament and of the Council on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings* is the latest comprehensive accounting directive to be enforced in EU (European Parliament and Council of the European Union 2013). The guiding principle developing the new directive was to reduce costs and administrative burdens especially for SMEs (European Commission 2013b). The *think small first* idea of the directive enables companies to prepare profit and loss accounts, balance sheets and notes that are more proportionate to their size and to the respective information needs of the users of the statements (European Commission 2013b).

With the mandatory obligation of IFRS for the consolidated statements of publicly listed companies regulation introduces two differentiating criteria, according to which either IFRS or DAS can be required or permitted. The first criteria is whether the company is publicly listed or not concerning the interest of outside investors into the company. The other criteria is the type of financial statements, based on the argument that the purpose of consolidated statements is different from that of individual financial statements. Based on these two criteria it is possible to form four different groups of accounting systems for member states to enforce. (Sellhorn and Gornik-Tomaszewskt 2006)

Table 2: Groups formed according to the differentiators introduced by the IFRS

	Consolidated financial statements	Individual financial statements
Publicly traded companies	Group 1 IFRS required	Group 2 Option for member states to require or permit
Non-publicly traded companies	Group 3 Option for member states to require or permit	Group 4 Option for member states to require or permit

The four groups are shown in the table 2 and from the table it is possible to see three possible scenarios where IFRS adoption is voluntary and one case where it is mandatory. Group 1 is consolidated statement of publicly traded companies and as described earlier IFRS reporting is required. In three other groups European Union (EU) member state can choose how and to what extent to enforce IFRS. Member state can choose regulations and legislation on the individual statements of

publicly traded companies (group 2). On non-publicly traded companies a member state is allowed to regulate both consolidated statements (group 3) and individual financial statements (group 4). In this research focus is on consolidated statements and non-publicly traded companies merely group 3 and non-publicly traded single-entity companies of group 4.

A company using IFRS in its financial statements should by IAS 1 disclose that information and a company should not state financial statements to comply with IFRS unless all the regulations are satisfied as IAS 1 states:

> An enterprise whose financial statements comply with International Accounting Standards should disclose that fact. Financial statements should not be described as complying with International Accounting Standards unless they comply with all the requirements of each applicable Standard and each applicable interpretation of the Standing Interpretations Committee.

The differences in national regulations and deficiencies in the legal support for adopting IFRS have emerged significant challenges on implementing the full IFRS (Alp and Ustundag 2009). Also differences in accounting standards and practices at national level affect the adoption of IFRS (Chand, Patel and Patel 2010).

Before the introduction of IFRS for SMEs entities not forced to adopt full IFRS were either continuing to use DAS or adopt the full IFRS fulfilling all the requirements (Alp et al. 2009). IFRS for SMEs have been issued in anticipation that it will be applied by entities that are not required to apply IFRS as listed company but who prepare financial statements for external users (Perera and Chand 2015). It is important to realize that the majority of companies around the world are SMEs (Alp et al. 2009). SMEs are the backbone of many economies creating enormous contributions to employment creation, technological innovation and economic output (Chen 2006).

Prior research shows that the implementation of IFRS is challenging both on the national legislative level and among entities whether it be the full IFRS or IFRS for SMEs. Possible transition challenges such as arguments against differential reporting, cost–benefit considerations in adopting IFRS for SMEs and technical issues in the recognition principles of the standard that may arise when moving from DAS or full IFRS to IFRS for SMEs have been regarded as challenging issues (Evans, Gebhardt, Hoogendoorn, Marton, Di Pietra, Mora, Thinggård, Vehmanen and Wagenhofer 2005).

IFRS are expected to provide better quality annual reports of entities as standards limit managerial discretion and require more disclosure and transparency (Francis et al. 2008: 332). There might be an improvement in earnings quality with IFRS (Paananen and Henghsiu 2009). Some research also find contradicting results on earnings quality after adopting IFRS (Van Tendeloo and Vanstraelen 2005). There is also research stating a decrease in earnings quality after adopting IFRS (Jeanjean and Stolowy 2008). There seems not to be clear consensus whether adopting IFRS improves the quality of annual reports over the usage of DAS. Management's bonuses might be earnings based even in private companies in addition to the usual case in public companies. This might be incentive for managers to manipulate earnings while shareholders expect to have non-manipulated earnings. When earnings reported are used for taxation purposes management and shareholders are keen on manipulating earnings while taxation authorities are interested in high-quality financial reporting. (Cameran, Campa and Pettinicchio 2014: 281)

Reporting incentives are different in listed companies and private companies as stated above. Combined with IFRS, adoption affect on quality and usability of financial statements in private companies is relevant question. To understand the determinants affecting the voluntary adoption of IFRS this research focuses on SMEs in Europe.

3. HYPOTHESIS DEVELOPMENT

3.1. Determinants of adopting IFRS

Major benefit from adopting IFRS is the increased confidence of international stakeholders on the financial reporting (Cuijpers et al. 2005; Peek, Cuijpers and Buijink 2010). Francis et al. (2008) observe company's reasoning for adopting IFRS is based on county-specific and company-specific factors. They find that *larger companies*, *growth companies*, *companies with international shareholder*, *companies with export activities* and *companies with more external financing* are more likely to adopt IFRS. Francis et al. (2008) also show that companies from countries where IFRS adoption is not enforced by local legislation are more eager to adopt IFRS voluntarily.

In previous research Barth et al. (2008) conclude that IFRS companies report higher quality accounting numbers proxied by lower earnings management practices, more value relevant accounting information and lower error in financial analysts' earnings forecasts compared with companies not utilizing IFRS. Van Tendeloo et al. (2005) show for German public companies that IFRS adopters do not engage in less earnings management compared with non-IFRS adopters. Another interesting research subject is the cost of capital for companies, as IFRS supposedly lessens information asymmetry and provides more detailed financial statements for stakeholders it is suggested that IFRS adopters benefit from lower cost of equity as enhanced disclosures reduce the cost of capital (Diamond et al. 1991) but Cuijpers et al. (2005) are not able to provide proof on lower costs of equity on companies adopting IFRS compared with non-IFRS companies.

In this chapter is discussed the associations between company and country specific variables affecting the adoption of IFRS. Previous research focuses on the determinants of public companies but in this research private company related determinants are studied. From prior research it is possible to identify a number of variables affecting the adoption of IFRS. In this research focus is on factors that have proven to be significant in previous research and factors suited for non-listed companies. The determinants used in this research are *international activity*, *operating country*, *the size of a company*, *reputation of an external auditor* and *profitability of a company.*

3.2. International Activity

Companies operating internationally typically have a much more heterogeneous group of stakeholders than companies that mainly operate nationally (Cuijpers et al. 2005: 496). Companies with international operations usually need to provide financial information to foreign investors and stakeholders to be able to effectively operate (Jaggi and Low 2000: 504). Internationally operating companies are more likely to have higher quality financial statements to deliver to stakeholders than other companies (Tarca 2004). Jaggi et al. (2000) also state the positive association between multi-nationality of companies and financial disclosures.

Companies adopting IFRS voluntarily give their financial statements greater credibility and create confidence among international customers, suppliers or governments as they are more familiar with IFRS statements than DAS statements (Dumontier et al. 1998). Wu and Zhang (2010) discuss the tendency of international companies to turn to foreign peers for benchmark as a reason to adopt IFRS. Number of subsidiaries is used as a measure of international activity by assuming that internationally operating companies are more likely to have a greater number of subsidiaries (Jaggi et al. 2000).

Hypothesis 1 (H1): *Number of subsidiaries is positively associated with IFRS adoption.*

3.3. Country-Specific Determinants

In previous research Cuijpers et al. (2005: 496) assume the net benefits of non-local GAAP adoption to depend on the country-specific institutional environment of a company. Usage of IFRS can be used as a symbol of commitment to provide high quality financial reports for companies domiciled in countries with lower quality accounting standards (Cuijpers et al. 2005: 496). The net benefits to companies from countries with high quality accounting standards are lower because reporting using DAS already provides high quality financial information (Cuijpers et al. 2005: 496). Ashbaugh (2001) in her research shows that companies operating in countries where DAS differ more from IFRS are more likely to adopt non-local GAAP e.g. IFRS. The general quality of financial reporting in a country also depends on the application of accounting standards but this does not have to have direct effect on the choice between local and non-local GAAP (Cuijpers et al. 2005: 496). Peek et

al. (2010) show that creditor protection measures in a country affect the accounting requirements.

The usage of IFRS is explicitly allowed as an alternative to DAS for consolidated financial reporting in some member EU states (Cuijpers et al. 2005: 497). The cost of adopting IFRS will be lower for companies in these countries because they will not face and reconciliation requirements to DAS if they are using IFRS (Cuijpers et al. 2005: 497). In previous research on the adoption of IFRS in the EU Cuijpers et al. (2005: 493) show that before the mandatory adoption of IFRS most companies using IFRS were from Germany, Austria or France and in the same research there were no IFRS adopters found in the United Kingdom, Ireland, Portugal or Sweden. This leads to assumption there will be differences in the adoption of IFRS depending on operating country. The regulation on accounting policy among different countries regarding IFRS and IFRS for SMEs varies. There are generally two types of countries, *permitting* and *prohibiting* the usage of IFRS or IFRS for SMEs as described in table 3. In addition to this classification in some countries the regulation is close to international standards or changing towards that direction (IFRS 2015c,g; Schmid et al. 2015).

Regarding IFRS, most of the countries[1] in the sample allow usage of IFRS (IFRS 2013a, 2015b,e, 2016; Schmid et al. 2015). There are some differences in regulation and accounting policies among the countries. *Estonian* GAAP is broadly based on IFRS for SMEs (IFRS 2015c). In *Germany* IFRS is permitted to consolidated statements of all companies not traded in a regulated market (IFRS 2015d). Statutory accounts must be prepared according to German GAAP but IFRS is allowed in standalone financial statements if German GAAP consolidated financial statements are also prepared (IFRS 2015d). In *Greece* IFRS is permitted for consolidated and separate financial statements of all companies provided that they have an independent audit by a Certified Public Accountant (IFRS 2013b). The allowance of IFRS usage can be defined by local legislation depending on the size of company as in *Iceland* IFRS is permitted for large and medium sized companies (Schmid et al. 2015).

Cuijpers et al. (2005: 491) point out the challenges in Italian companies prior 2005 when the companies refer to IAS in the absence of local standards but not fully comply with IAS. In this research the compliance with IFRS is not questioned. In *Italy*

[1] Croatia, Denmark, Estonia, Finland, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Sweden, Slovak Republic and United Kingdom.

Table 3: Accounting policy legislation and regulation by countries

Code	Country	IFRS	IFRS for SMEs
CZ	Czech Republic	Prohibited[a]	Prohibited
DE	Germany	Permitted[b]	Prohibited
DK	Denmark	Permitted	Prohibited
EE	Estonia	Permitted[c]	Prohibited[c]
FI	Finland	Permitted	Prohibited
GB	United Kingdom	Permitted	Permitted[d]
GR	Greece	Permitted[e]	Prohibited
HR	Croatia	Permitted	Prohibited
HU	Hungary	Permitted	Prohibited
IE	Ireland	Permitted	Prohibited[df]
IS	Iceland	Permitted[g]	Prohibited
IT	Italy	Permitted for consolidated[h]	Prohibited
LT	Lithuania	Permitted	Prohibited
LU	Luxembourg	Permitted	Prohibited
MT	Malta	Permitted[i]	Prohibited
NL	Netherlands	Permitted	Permitted[j]
NO	Norway	Permitted	Prohibited
PL	Poland	Permitted for IFRS subsidiary[k]	Prohibited
PT	Portugal	Prohibited[a]	Prohibited
SE	Sweden	Permitted for consolidated only	Prohibited
SK	Slovak Republic	Required for consolidated	Prohibited

[a] Permitted for companies in a group reporting using IFRS.
[b] Financial reporting must comply with German GAAP. IFRS is allowed if German GAAP is also satisfied.
[c] Estonian GAAP is based on IFRS for SMEs, previous GAAP was based on full-IFRS.
[d] Local regulation is fundamentally overlapping with IFRS for SMEs.
[e] Permitted for all companies audited by Certified Public Accountant.
[f] There are plans on allowing IFRS for SMEs.
[g] Permitted for large and medium sized companies.
[h] If the consolidated statement is filed using IFRS also standalone financial reports can use IFRS.
[i] Required for large SME companies or per major shareholder request.
[j] IFRS for SMEs is allowed as long as the accounting principles are suitable for local requirements.
[k] Permitted for a subsidiary of IFRS consolidated parent.

if consolidated statement is filed using IFRS also standalone financial statements can be filed using IFRS, IFRS is permitted for consolidated statements of all companies (Schmid et al. 2015). Whereas in *Malta* IFRS is required for some SME companies based on accounting details[1] (IFRS 2015e). Smaller companies have the choice of IFRS and maltese General Accounting Principles for Smaller Entities (GAPSE) (IFRS 2015e). IFRS is required for large companies and for consolidated financial statements of all companies in *Slovak Republic* (IFRS 2015f). In *Sweden* IFRS is permitted for consolidated financial statements and not permitted for standalone or separate statements (Schmid et al. 2015).

IFRS is prohibited in *Czech Republic* but it is permitted for consolidated and separate financial statements to listed companies and companies that are subsidiaries or parent companies of groups that for consolidated financial statements use IFRS, other companies are not allowed to use IFRS (IFRS 2015a). In *Poland* IFRS is permitted if the company is a subsidiary of a parent preparing its consolidated financial statement according to IFRS (Schmid et al. 2015). In *Portugal* IFRS is permitted for non-listed standalone financial elements if they are part of a consolidated group that reports under IFRS (IFRS 2013c).

IFRS for SMEs is generally prohibited in almost every country of the sample. This is clear indication of IFRS for SMEs not being incorporated into local legislation. There are few exemptions to that as in *Netherlands* the local legislation and regulations are in general very similar to IFRS for SMEs thus enabling IFRS for SMEs reporting to fulfill local requirements (Schmid et al. 2015). The situation is similar also in *United Kingdom* where the UK GAAP has a regulation for SME reporting very similar to IFRS for SMEs (IFRS 2015g). The new *Estonian* GAAP[2] is broadly based on the IFRS for SMEs with some modifications (IFRS 2015c). In *Ireland* although local legislation is fundamentally overlapping with IFRS for SMEs, IFRS for SMEs is not alloved but there are conversion plans to allow it (Schmid et al. 2015). The aforementioned differences in national regulations give strong signal on operating country affecting the adoption of IFRS.

Hypothesis 2 (H2): *Operating country is factor affecting IFRS adoption.*

[1] If any one of the following criteria is met: Total assets more than 17,500,000€, total revenue more than 35,000,000€, average number of employees more than 250 or if a shareholder owning 20% or more of the outstanding shares requests the use of full IFRS.

[2] Effective from 1 January 2013. Previous *Estonian* GAAP was based on full-IFRS.

3.4. Size

When adopting IFRS, companies are obligated to publish more financial information than DAS might require (Van Tendeloo et al. 2005). Previous research shows that larger companies provide stakeholders with more disclosures (Jaggi et al. 2000). Disclosure costs are relatively smaller for large companies than for small companies (Lang and Lundholm 1993) and larger companies are more exposed to analysts and public and might require a more solid base on financial reporting and voluntarily make more disclosures (Cuijpers et al. 2005). Higher visibility can easily lead to more litigation (Daske et al. 2008). In order to increase confidence in their financial statements larger companies are more eager to adopt IFRS (Dumontier et al. 1998). Cuijpers et al. (2005: 498) state the choice to adopt non-local GAAP represent a commitment to making more disclosures than would be required under DAS. Larger companies are also more likely involved in long-term financing than smaller companies (Beck, Demirgüç-Kunt and Maksimovic 2006) and require higher quality financial reports.

Disclosing detailed information is less costly for larger companies because they also produce accounting information for internal use (Singhvi and Desai 1971). There should be relation between voluntary IFRS adoption and the company size. Kvaal et al. (2010) find the size as a determinant of voluntary IFRS adoption over DAS. It is expected that larger companies are more likely to adopt IFRS voluntarily.

Hypothesis 3 (H3): *Size of a company is positively associated with IFRS adoption.*

3.5. Auditor

Auditors are generally classified as the *big four* and the *non big four*. The big four refers to the companies Deloitte, Ernst&Young, KPMG and Pricewaterhouse Coopers. Using a large and international audit company can result in more credible financial statements (Dumontier et al. 1998). Previous research shows that companies may prefer to utilize an auditor of high reputation in order to show commitment on higher quality financial reporting but also companies select the most cost-effective auditor if there is no public pressure to select a big four auditor (Chaney, Jeter and Shivakumar 2004). Chaney et al. (2004) do not find evidence for big four auditor fee premium. Big four companies may invest more on training, facilities and technol-

ogy in order to carry out audits more efficiently for larger and complex companies (Chaney et al. 2004). Smaller companies in general might not appreciate the fixed costs of these investments (Brown et al. 2005).

Smaller audit companies might not be familiar with the IFRS regulations and thus not encouraging on the voluntary adoption of IFRS. Large and international big four audit companies are more likely to encourage the client to use IFRS. The relation between the voluntary adoption of IFRS and utilizing a big four auditor can be the consequence of adopting IFRS and needing a capable auditor or adopting IFRS as encouraged by big four audit company. Dumontier et al. (1998) state the competitive advantage of big four companies with IFRS and their superior international training of their employees and because of the existence of economies of scale in the development of competence in IAS. The enforcement of IFRS is also positively related to the experienced and expected independence of the auditor of audited (Dumontier et al. 1998). Matonti et al. (2012) find among Italian companies evidence on voluntary IFRS adopters being more often audited by big four audit companies.

In a research using data from French companies there is negative correlation between the number of reported abnormal related party transactions and the presence of a big four auditor and it is considered being related to the auditor reputation (Bennouri et al. 2015). An auditor might have a role in decision on IFRS adoption as auditors are not only auditing company but also consulting on wide variety of issues. On a research on Bahrain corporations, only the external auditor affects the choice of IFRS (Al-Basteki 1995).

Hypothesis 4 (H4): *Employing a big four audit company is positively associated with IFRS adoption.*

3.6. Profitability

Prior research on public companies hypothesizes that IFRS compliance by profitable companies should increase as because IFRS makes it more difficult to manage earnings and these companies could reduce earnings volatility perceived by the market (Dumontier et al. 1998). Meek, Roberts and Gray (1995) find no evidence on profitability being a factor in voluntary disclosure actions.

The profitability of a company can act as motivation on financial information disclosure matters as pressure from the market and authorities leads to more comprehensive disclosure (Inchausti 1997). Comprehensive disclosure is used to satisfy the needs of stakeholders and to signal overall trust in the operations of company and to increase transparency (Inchausti 1997).

Hypothesis 5 (H5): *Profitability of a company is positively associated with IFRS adoption.*

4. RESEARCH DESIGN

4.1. Sample data

This section describes the data and method used to test the hypotheses. The initial sample consists of European companies that are not publicly listed and are included in Orbis database from Bureau van Dijk. The data used is financial statements from the year 2014. The data is collected from Orbis database and it is regarded reliable in the scope of this research.

The original sample consists of 142 867 companies. Within this sample, some companies have imperfections on variables used in this research. The final sample of companies with all needed data is 116 625 companies. In the table 4 is shown the search steps of defining the data. There are more than 163 million companies in Orbis database. Limiting search only on active unlisted companies with data on accounting practice and operating in Europe in Croatia, Czech Republic, Denmark, Estonia, Finland, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Sweden or United Kingdom limits the number of companies to over 7 million. Operating country limitation is based on regulations and financial statement quality and availability measures. Most of the listed countries have strong enforcement on financial statements and available data on Orbis on accounting policy.

Bureau van Dijk (BvD) independence indicator defined by BvD to characterize the degree of independence of a company from its shareholders (Bureau van Dijk 2016) is used to limit the companies to entities where the owner structure and shareholder information is available. Companies with no shareholder with more than 25% of direct or total ownership are regarded as independent companies covering BvD independence indicators A+, A and A-. Companies with no shareholder with more than 50% of direct, indirect or total ownership and one ore more shareholders with more than 25% of direct or total ownership are classified with BvD independence indicators B+, B and B-. Companies where no shareholder with more than 50% of direct ownership and one shareholder with more than 50% of total ownership is regarded as indirectly majority owned companies classified with BvD independence

Table 4: Search strategy on data

Search step	Search result
All active companies and companies with unknown situation	163,895,396
Accounting practice: IFRS or Local GAAP	20,407,653
Operating in: Croatia, Czech Republic, Denmark, Estonia, Finland, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Sweden, United Kingdom	8,017,064
Active companies	7,253,429
Unlisted companies	7,244,857
BvD Independence indicator: A+, A, A-, B+, B, B-, C+, C, D [a]	5,543,037
Turnover minimum 1000 €, exclusion of Public authorities/States/Governments	1,944,283
Number of employees in range from 10 to 249	318,923
NACE Rev. 2 main section: B, C, D, E, F, G, H, I, J, L, M, N [b]	289,484
Turnover between 2m€ and 50m€ or Balance sheet total between 2m€ and 43m€	142,867

[a] Companies with no shareholder with more than 25% of direct or total ownership are regarded as independent companies covering BvD independence indicators A+, A and A-. Companies with no shareholder with more than 50% of direct, indirect or total ownership and one ore more shareholders with more than 25% of direct or total ownership are classified with B+, B and B-. Companies where no shareholder with more than 50% of direct ownership and one shareholder with more than 50% of total ownership is regarded as indirectly majority owned companies classified with C+ and C. Directly majority owned companies are companies where one shareholder is recorded with more than 50% of direct ownership and classified as D.

[b] Industries classified in B - mining and quarrying, C - manufacturing, D - electricity, gas, steam and air conditioning supply, E - water supply; sewerage, waste management, and remediation activities, F - construction, G - wholesale and retail trade; repair of motor vehicles and motorcycles, H - transportation and storage, I - accommodation and food service activities, J - information and communication, L - real estate activities, M - professional and support service activities and N - administrative and support service activities.

indicators C+ and C. Directly majority owned companies are companies where one shareholder is recorded with more than 50% of direct ownership and classified as BvD independence indicator D. Leaving out companies with BvD independence indicator U (Unknown) limits the sample to companies with shareholders exist. (Bureau van Dijk 2016)

BvD independence indicator could have been used to limit or classify companies even further but as the number of companies using IFRS as their accounting policy is minuscule more limitations could define companies to be outside the scope of sample. Limiting minimum turnover to 1000€ excluded simultaneously public authorities, states and governments. The minimum requirement of turnover helps in limiting the amount of companies for further processing and SME definition of micro company having turnover less than 2 million euro or balance sheet total less than 2 million euro can be argued to exclude companies with turnover less than 1000 euro from SMEs. Search using European Union's industry classification system NACE rev. 2 and main section B, C, D, E, F, G, H, I, J, L, M and N leaves out section A - Agriculture, forestry and fishing and K - Financial and insurance activities and industries related to public administration and service. Financial and public industries are left outside this research as the legislation and practices in those industries contradict and diverge from the traditional industries. The included economic activities include industries classified in B - mining and quarrying, C - manufacturing, D - electricity, gas, steam and air conditioning supply, E - water supply; sewerage, waste management, and remediation activities, F - construction, G - wholesale and retail trade; repair of motor vehicles and motorcycles, H - transportation and storage, I - accommodation and food service activities, J - information and communication, L - real estate activities, M - professional and support service activities and N - administrative and support service activities.

The last search step in strategy is to limit companies according to SME definition. The number of employees is already taken into account and is in the range from 10 to 249. The financial aspect to be taken into account is either turnover or balance sheet total figure. To qualify as a SME turnover is over 2 million euro and less or equal to 50 million euro or balance sheet total is more than 2 million euro and less or equal to 43 million euro. With these financial limitations a sample of 142 867 companies remains. The data used is from the financial year 2014 as it is the latest most comprehensive year of data available. Taking data from the financial year 2015 in the first half of year 2016 might have affected the research outcome as different countries and companies might have different legislation and infrastructure

regarding the publication of financial statements. For year 2014 it was expected to be comprehensive enough as there had been almost one year's time for the information to be published and to transfer to Orbis database.

4.2. Descriptive statistics

Further analysis of the data reveals some companies with incomplete data on the variables of interest in this research. This further limits the sample size to 116 625 companies with most of the required data on variables available. As discussed later the data missing from few statistical units on ROE is not considered as a problem as it is not included in the regression model.

Table 5: Characteristics of data on accounting practice

Accounting practice	Count	Percent of total
Local GAAP	105,645	90.6%
IFRS	10,980	9.4%
Total	116,625	100.0%

The sample consists of 90.6% local GAAP adopters and 9.4% IFRS adopters as seen in the table 5. Furthermore in the table 6 is shown the differences of countries and the count of different accounting policy users on country level. Significant is to note the relatively small absolute and relational number of IFRS adopters in most of the countries. There are multiple countries where there are not both options of accounting policy present. One interpretation might be the strict definition of the sample to exclude larger companies that do not qualify as SMEs as the size of a company is discussed in hypothesis to have an effect on the voluntary adoption of IFRS. In most countries local GAAP is used by the majority of companies except in Portugal where every company in the sample is reporting following IFRS regulation. The countries where there are no companies reporting according to IFRS regulation it is challenging to figure out the reason. In some countries, the local legislation might effectively forbid the application of IFRS despite the legislation permitting the use of IFRS. It can be of taxation or other local differences in regulations rendering IFRS useless. The legislation is changing constantly as the implementation and adaptation of International Financial Reporting Standards (IFRS) is an ongoing process in EU and also outside EU. The possibilities for companies to adopt IFRS

vary as the regulations and legislation develop. It would have been possible to include in the data information on IFRS adoption legislation on country level e.g. adding an indicator variable to state if company is located in those member states where the usage of IFRS is allowed. Different countries have different legislation on companies eligible or permitted to report solely using IFRS thus making the construction of the aforementioned indicator variable burdensome and challenging. Limiting the number of countries in this research would have enabled the creation of such indicator variable.

Based on data in the table 6 it might have been a good idea to limit the research only to countries where there are more than 20 companies reporting using each accounting policy. Strict aspect on sample size would leave only United Kingdom, Greece and Italy in the sample. In this research one hypothesis is the operating country of company authorizing the inclusion of larger amount of companies even with limited adoption of IFRS. In the table 6 is included the national regulation aspect of each country as discussed earlier to show the acceptance and utilization level of countries upon IFRS adoption. Most of the companies permit the usage of IFRS for SMEs but there are some exemptions. One country to note is Portugal where IFRS is permitted only for companies belonging to a company group where IFRS regulations are used but the data shows all companies in the sample to report according to IFRS.

The classification of sample data according to Bureau van Dijk independence indicator shows strong emphasis on directly majority owned companies (independence indicator D) with 75.7 percent of companies in the sample. In the sample, the second most frequent independence indicator is B+ covering companies where there is one or more shareholders with more than 25% of direct or total ownership but no shareholder with more than 50% of direct, indirect or total ownership. The next most frequent company is independent company, a company where there is no shareholder with more than 25% of direct or total ownership. From the data can be seen as seen in the table 7 the lack of companies categorized as indirectly majority owned companies (independence indicator C) as it is categorized in all other values representing 2.2% of sample. Actually, the remaining values all represent under one percent of companies in the sample. The lack of indirectly majority owned companies can be explained with the lack of complex ownership structures in the companies in the sample. The independence indicator frequencies in the sample do represent the characteristics of SMEs with strong owners. The present population of companies with independence indicator B+ can also be seen typical for the ownership struc-

Table 6: Accounting policy counts and regulation by countries

	IFRS[a]		Regulation
Country	0	1	
CZ	3319	3	Prohibited[b]
DE	4261	2	Permitted[c]
DK	1218	0	Permitted
EE	1883	0	Permitted
FI	5053	0	Permitted
GB	26649	952	Permitted
GR	4611	352	Permitted[d]
HR	2081	0	Permitted
HU	897	0	Permitted
IE	357	17	Permitted
IS	231	0	Permitted[e]
IT	24358	265	Permitted for consolidated[f]
LT	1434	0	Permitted
LU	189	1	Permitted
MT	50	0	Permitted[g]
NL	1753	0	Permitted
NO	13251	0	Permitted
PL	488	20	Permitted for IFRS subsidiary[h]
PT	0	9368	Permitted for IFRS group
SE	13417	0	Consolidated only
SK	145	0	Required for consolidated
Total	105645	10980	

[a] IFRS is an indicator variable taking the value 1 if the company is using IFRS and 0 otherwise.
[b] Permitted for companies in a group reporting using IFRS.
[c] Financial reporting must comply with German GAAP. IFRS is allowed if German GAAP is also satisfied.
[d] Permitted for all companies audited by Certified Public Accountant.
[e] Permitted for large and medium sized companies.
[f] If the consolidated statement is filed using IFRS also standalone financial reports can use IFRS.
[g] Required for large SME companies or per major shareholder request.
[h] Permitted for a subsidiary of IFRS consolidated parent.

Table 7: Characteristics of data on BvD independence indicator

BvD Independence indicator	Count	Percent of total
D	88,342	75.7%
B+	21,161	18.1%
A+	4,607	4.0%
All other values	2,515	2.2%

ture of SMEs. Companies where there are two or three equal shareholders belong to this group as in addition companies with one or more strong but not majority shareholders and one or more minority shareholders. These two categories represent the most common ownership allocations in the scope of SMEs.

Table 8: Descriptive statistics of sample of companies with certain variables.

Statistic	N	Mean	St. Dev.	Min	Max
ASSETS	116,602	13,451.860	47,156.660	0	8,316,480
AUDITOR	116,625	0.229	0.420	0	1
EMPLOYEES	116,625	58.439	50.993	10	249
PROFIT	116,625	3.952	12.804	−100.000	100.000
ROE	110,319	21.984	88.436	−999.710	996.480
SIZE	116,602	8.776	1.152	0.000	15.934
SUBS	116,625	0.950	3.555	0	554
IFRS	116,625	0.094	0.292	0	1

In the table 8 the final sample of 116 625 companies is described based on different variables. The table contains calculated variables and original variables. *ASSETS* is the total assets of company at year end 2014. *AUDITOR* is a dummy variable taking value 1 if the auditor of company is one of big four audit companies and 0 otherwise. *EMPLOYEES* is the total number of employees of the company. *PROFIT* is profit margin before tax. *ROE* is Return on Equity. *SIZE* is calculated from *ASSETS* using natural logarithm function. *SUBS* is the number of subsidiaries of the company. *IFRS* is a variable taking value 1 if the company is reporting according IFRS regulation and 0 otherwise. Country information is not shown in the table 8 as it is discussed earlier.

There is strong Pearson correlation between some of the variables. SIZE and EMPLOYEES have high correlation between them and between PROFIT and ROE

(see Appendix A). The correlation is high enough to discard variables with possible multicollinearity problems thus in this research focus is on SIZE and PROFIT and discard EMPLOYEES and ROE over the aforementioned variables.

In the table 9 is shown the correlations between the remaining determinants of IFRS adoption. There is weak positive linear correlation between SIZE and SUBS. This could be explained as companies with larger number of subsidiaries might also have more total assets. The correlation is weak enough for both of the variables to be included in further analysis and research.

Table 9: Pearson correlations between determinants of IFRS adoption with IFRS

	AUDITOR	PROFIT	SIZE	SUBS	IFRS
AUDITOR	1	0.007	0.072	−0.010	−0.046
PROFIT	0.007	1	0.056	0.032	−0.028
SIZE	0.072	0.056	1	0.199	−0.057
SUBS	−0.010	0.032	0.199	1	−0.010
IFRS	−0.046	−0.028	−0.057	−0.010	1

Excluding observations with missing information on SIZE the sample size is down to 116 602 companies. Comparing the two groups of companies, the ones using IFRS and the ones using DAS therefore not using IFRS is shown in the tables 10 and 11. For most of the variables there are no major differences between these two groups. One remarkable difference is in the SIZE variable and as per hypothesis, companies using IFRS do not seem to include the smallest companies. The means of SIZE in these two groups do not present any significant difference in the sizes of companies. In group using IFRS the minimum is different from zero contradicting the group of companies using DAS. The smallest company using IFRS is significantly larger in assets than the smallest company not using IFRS.

It is worth to note the differences in standard deviation of SUBS of companies. There is not significant difference in means, IFRS companies with 0,838 versus non-IFRS companies 0,962. More significant is the standard deviation, IFRS 6,959 versus non-IFRS 2,986. Most of the companies in the sample have at most one subsidiary. In group of IFRS adopters, the standard deviation shows the larger spread of subsidiary count to wider range. There is a larger percentage of companies with multiple subsidiaries in the group of IFRS adopters compared to companies not using IFRS. The maximum number of subsidiaries is larger in group using IFRS.

Table 10: Summary statistics of companies not using IFRS.

Statistic	Mean	St. Dev.	Min	Max
AUDITOR	0.235	0.424	0	1
PROFIT	4.068	12.492	−100.000	100.000
SIZE	8.797	1.157	0.000	15.934
SUBS	0.962	2.986	0	382

N=105,623

Table 11: Summary statistics of companies using IFRS.

Statistic	Mean	St. Dev.	Min	Max
AUDITOR	0.169	0.375	0	1
PROFIT	2.832	15.428	−99.490	100.000
SIZE	8.573	1.085	3.829	14.822
SUBS	0.838	6.959	0	554

N=10,979

4.3. Logistic Regression

Logistic regression is used as a method in order to study the determinants of voluntary IFRS adoption. The method is similar to previous research on IFRS adoption (Ashbaugh 2001; Cuijpers et al. 2005). Logistic regression is suitable for situations when there is disproportionate sampling from two populations (Maddala 1991) as is in the sample of this research. In logistic regression a binary variable indicating whether a company is using IFRS or not is regressed on a number of explanatory variables representing company-specific and country-specific characteristics expected to affect the adoption of IFRS. As discussed earlier the determinants chosen for the regression model are based on correlation findings to address the possible collinearity among independent variables.

The logistic regression model:

$$\begin{aligned} P(IFRS_i) = \beta_0 + \beta_1 SUBS + \beta_2 SIZE + \beta_3 AUDITOR + \\ \beta_4 PROFIT + \sum_{0}^{20} \beta_{Ci} COUNTRY + \epsilon_i \end{aligned} \quad (1)$$

where IFRS is an indicator variable taking the value 1 if the company is using IFRS and 0 otherwise, SUBS is the number of subsidiaries of the company, SIZE is the logarithmic value of total assets, AUDITOR is a dummy variable taking the value 1 if the auditor of company is one of the Big Four audit companies and 0 otherwise, PROFIT is the profit margin before taxes. In addition to the three variables introduced there is also a country determinant included in the regression. COUNTRY is presented as dummy variable for each of the countries the sample companies represent so that the value of variable is 1 if the company is registered as being from the dummy variable country and 0 in other cases. The inclusion of multiple country dummy variables in the research and regression should point out in the logistic regression model the country specific differences.

4.4. Results of logistic regression

The results of logistic regression shown in the table 12 show that the adoption of IFRS is significantly positively related to the total assets of the company (SIZE), number of subsidiaries (SUBS) as proxy for international operations, the auditor being one of the big four auditors (AUDITOR) but negatively related to profit margin (PROFIT) of the company. When analyzing the country determinants, there is significant positive relation to United Kingdom (CountryGB), Greece (CountryGR), Ireland (CountryIE), Italy (CountryIT) and Poland (CountryPL). In addition to positive relation, there is significant negative relation to Germany (CountryDE). Notable is the statistical significance is in correlation with the richness of observations in each country. The countries where the regression estimate is statistically significant are the countries where there are most observations from both accounting policies. Portugal (CountryPT) is an example country of a very high coefficient but the lack of contradicting observations in Portugal diminishes statistical significance.

Further exploration of the results of logistic regression shows the statistical significance of the determinants SUBS and PROFIT but taken into account the coefficient of two aforementioned variables do not significantly differ from zero, it is difficult to say there would be practical effect on accounting policy adoption. The statistical significance on minuscule coefficients is the result of large number (116 602) of observations.

Table 12: Logistic regression analysis of determinants of IFRS adoption

	Dependent variable:
	IFRS
SIZE	0.301*** (0.025)
SUBS	0.007** (0.003)
AUDITOR	1.404*** (0.060)
PROFIT	−0.003** (0.002)
CountryDE	−1.841** (0.914)
CountryDK	−15.953 (817.214)
CountryEE	−14.861 (645.785)
CountryFI	−15.400 (395.564)
CountryGB	2.895*** (0.580)
CountryGR	4.248*** (0.581)
CountryHR	−14.508 (632.324)
CountryHU	−15.115 (938.147)
CountryIE	2.976*** (0.632)
CountryIS	−14.871 (1, 873.263)
CountryIT	2.202*** (0.581)
CountryLT	−14.372 (765.047)
CountryLU	1.601 (1.158)
CountryMT	−14.659 (4, 119.613)
CountryNL	−15.817 (677.364)
CountryNO	−15.143 (243.918)
CountryPL	3.374*** (0.623)
CountryPT	28.622 (298.011)
CountrySE	−15.048 (241.374)
CountrySK	−14.523 (2, 416.158)
Constant	−9.653*** (0.618)
Observations	116,602
Log Likelihood	-6,668.189
Akaike Inf. Crit.	13,386.380
Note:	*p<0.1; **p<0.05; ***p<0.01

Coefficient on aforementioned country variables[1] implies the country affects the adoption of IFRS. Germany is the only country where adoption of IFRS is negatively related and against a hypothesis of this research. Companies in Germany are less likely using IFRS than companies in other countries with statistically significant results. From the statistically insignificant country coefficients it is possible to find a group of countries. A group with a negative coefficient at around -15. This is the result of countries in the group not having any companies using IFRS. Statistically insignificant is also Luxembourg (CountryLU) and Portugal (CountryPT). In Portugal all companies in the sample are reporting following IFRS regulations. In Luxembourg there is one company reporting using IFRS, not enough for statistical significant differentiation from the other observations in Luxembourg using local GAAP in their reporting. The effect of inclusion of *countries* with *country dummy variables* in the logistic regression formula as stated in formula 1 is investigated with a regression model without the country dummy variables hence removing the country from the explanatory variables of IFRS adoption.

The simplified logistic regression model:

$$P(IFRS_i) = \beta_0 + \beta_1 SUBS + \beta_2 SIZE + \beta_3 AUDITOR + \beta_4 PROFIT + \epsilon_i \quad (2)$$

The results of simplified regression model (equation 2) can be seen in the table 13. Notable is the change in the direction of relation in SIZE, SUBS and AUDITOR. Without the country variable to explain the used accounting policy the differences need to be explained with the remaining variables. From the comparison it is also visible the coefficient of SUBS at -0.0005 is less than its standard error 0.004 and can be regarded statistically insignificant. Every other variable is statistically significant.

Hypotheses of this research – based on previous literature – regarding size, the number of subsidiaries as proxy of international activities, the auditor being a big four company and the profitability of a company should be positively related to adoption of IFRS regulation. With the simplified regression model this does not seem to be the situation as all variables are either statistically significant and implying the opposite direction or not significant at all. The original regression model with country as one explanatory variable seems to be producing more robust results.

[1] Germany, Greece, Ireland, Italy, Poland, United Kingdom

Table 13: Logistic regression analysis of determinants of IFRS adoption comparison with and without country dummy variables

	Dependent variable:	
	IFRS	
Regression model	(1)	(2)
SIZE	0.301*** (0.025)	−0.161*** (0.009)
SUBS	0.007** (0.003)	−0.0005 (0.004)
AUDITOR	1.404*** (0.060)	−0.393*** (0.027)
PROFIT	−0.003** (0.002)	−0.007*** (0.001)
Constant	−9.653*** (0.618)	−0.759*** (0.078)
Country dummy variables	Yes	No
Observations	116,602	116,602
Log Likelihood	-6,668.189	-36,040.850
Akaike Inf. Crit.	13,386.380	72,091.690
Note:		*p<0.1; **p<0.05; ***p<0.01

When comparing the two models as seen in the table 13, the full model with country dummy variables (1) and the simplified model without country dummy variables (2) there is significant difference in log likelihood. With the simplified model (2) the log likelihood is -36,040.850 and with the full model (1) it is considerably smaller valued at -6,668.189. Comparison on Akaike Information Criterion (AIC) the simplified model with AIC=72,091.690 is less preferred model over the full model with AIC=13,386.380. Based on analysis on coefficients and statistical likelihood calculations for models it is clear that country should be considered as one variable in the model determining the adoption of IFRS regulations in the scope of this research.

5. FINDINGS AND DISCUSSION

5.1. Findings

As the results indicate it is possible to identify determinants affecting the adoption of IFRS in European Union (EU). The number of companies having adopted IFRS over DAS is relatively low in the sample of SMEs. The missing larger unlisted companies could have introduced a larger percentage of IFRS adopters. It is possible there are not real economic benefits on voluntary adopting IFRS in the companies in the scope of this research. There are some common characteristics among the companies adopting IFRS, the IFRS adopters are more likely to be audited by a big four audit company and in general are larger than the non-adopting companies.

The profitability or number of subsidiaries of a company does not have practical consequences on adoption of IFRS. The analysis show statistically significant results on those aforementioned determinants but the actual influence is minuscule. Adoption of IFRS is greatly influenced by the country of operation in countries where both IFRS and DAS are used widely among the companies. It is also visible that in certain countries there are solely users of only one accounting policy. In the majority of these cases the accounting policy used is the DAS but in Portugal there are only IFRS users. This gives a strong intimation to enforced IFRS adoption in Portugal. The countries where there are no IFRS adopters in the sample it is difficult to extrapolate the attitude of IFRS adoption at national legislative and cultural level. The adoption of IFRS can be permitted but the legislation might not encourage to voluntarily adopt IFRS as taxation or other national and cultural aspects might not be accounted for in IFRS or national legislation.

There are countries[1] where there are a few companies reporting using IFRS and implying the possibility of using IFRS in those countries but the reason for the number being so small is left for further research. The operating country is shown to be a strong determinant on IFRS adoption. Using logistic regression models with and without country being included in the equation show significant changes

[1] Czech Republic, Germany, Ireland, Luxembourg and Poland

in the quality of the analysis. Without country information, the adoption needs to be explained using other determinants and as a consequence the coefficients change dramatically. In this kind of research, countries should be taken into account or limit the sample to countries of similar enough properties, culture and legislation. The results are discussed below and summarized in the table 14.

Subsidiaries as proxy of international activities show to be statistically significant in the sample but the coefficient is minuscule and therefore there is no practical effect and research does not give support for H1 (*Number of subsidiaries is positively associated with IFRS adoption*). There is a larger percentage of companies with multiple subsidiaries in the group of IFRS adopters compared to companies not using IFRS. These findings are congruent with the hypothesis of international activities being positively related to IFRS adoption but subsidiaries might not resemble well enough the level of international activities of companies and in further research other determinants on international activities should be considered. International activities should have an impact on voluntary IFRS adoption as discussed by Jaggi et al. (2000) and Cuijpers et al. (2005).

There is strong support on H2 (*Operating country is factor affecting IFRS adoption*). In the countries where there are more than 20 companies of each accounting policy, the coefficients of countries in the logistic regression show statistically significant and practically usable results. In literature Ashbaugh (2001) points out the adoption of IFRS to be more likely in countries where DAS differ most from IFRS but in this research the differences in accounting policies is not taken into account.

Size of a company is statistically significant and unlike the international activities there is evidence on practical results and strong support on H3 (*Size of a company is positively associated with IFRS adoption*). Size of a company is shown to be positively related to voluntary IFRS adoption also in earlier research (Dumontier et al. 1998).

The reputation of the auditor is the most determining variable on IFRS adoption not regarding the country dummy variables. There is strong positive relation between the auditor being a big four company and the adoption of IFRS, strong support on H4 (*Employing a big four audit company is positively associated with IFRS adoption*). This is in line with previous research (Matonti et al. 2012). The direction of relation remains unclear, whether companies adopting IFRS utilize big four auditor because of IFRS or whether big four auditor encourages company to adopt IFRS regulation.

The profitability of a company is not positively associated with adoption of IFRS. The statistical analysis with logistic regression shows a statistically significant negative coefficient but the absolute value the coefficient is even smaller than the minuscule absolute coefficient of subsidiaries. The result has no practical usability and it is contradicting the hypothesis. The profitability could be seen as a facilitator or motivator of disclosing financial information as Dumontier et al. (1998) and Inchausti (1997) point out but there is no association between profitability and IFRS adoption. There is no evidence to support H5 (*Profitability of a company is positively associated with IFRS adoption*). The results are consistent with prior research by Meek, Roberts et al. 1995.

Table 14: Hypotheses compared to research findings

	Hypothesis	Statistical	Practical
H1: Number of subsidiaries is positively associated with IFRS adoption	+	+	0[a]
H2: Operating country is factor affecting IFRS adoption		+[b]	+[b]
H3: Size of a company is positively associated with IFRS adoption	+	+	+
H4: Employing a big four audit company is positively associated with IFRS adoption	+	+	+
H5: Profitability of a company is positively associated with voluntary IFRS adoption	+	-[c]	0[d]

[a] Statistically significant but the coefficient is minuscule to argue practical results.
[b] In the countries where there are more than 20 companies of each accounting policy.
[c] The profitability is negatively associated.
[d] The coefficient is minuscule to argue practical results.

The limited amount of IFRS adopters can be considered as a surprise taken into account the obligatory adoption of IFRS of listed companies in EU from 2005 on. This could be reasoned with the lack of any quantifiable benefits as Cuijpers et al. (2005) point out in research before the mandatory IFRS adoption of listed EU companies the net benefits of voluntary IFRS adoption seem to be positive only to a limited number of companies even when focusing on listed companies obliged to report according to IFRS later on.

5.2. Limitations

The limitation of companies to SMEs and leaving large unlisted companies outside the scope of this research leaves the determinants of large companies unknown. Large companies should be researched in further studies in order to supplement the results of this study. Larger SMEs are more likely to adopt IFRS, with large companies the size could be even more significant.

The research is limited to 21 European countries with adequate financial data available in Orbis database. There is no clear indication the findings could be generalized to the remaining countries. However there is no clear evidence on challenges upon the generalization of the results. The homogeneity of the used accounting standards in the sample limits the results mostly to countries where there is heterogeneity in the usage of DAS and IFRS. The limitation in countries constitutes homogeneity in the accounting policy among most of the countries creating challenges in the statistical analysis of the data and results in unaccountable findings in some of the countries. This research is also limited to the data disclosed by the companies and in some cases might not contain all the interesting and significant companies.

The results of this research can not be generalized to cover all the companies in every country in Europe. The most problematic is the country specific determinant. The operating country of a company greatly affects the adoption of IFRS but in this research the properties of countries concerning legislation, culture and accounting policies are not discussed adequately to come to a conclusion on specific country properties affecting the adoption of IFRS in general. The results cannot be generalized to companies operating in the financial sector as those are excluded from the data and analysis. Potentially more suitable accounting regulation – IFRS for SMEs – is outside the scope of this research as it is not yet widely permitted in European countries.

5.3. Further research

The results of this research do not shed any decent light on the actual reasons and consequences of IFRS adoption. The benefits of voluntary adoption of IFRS are not explored. In previous research Cuijpers et al. (2005) pointed out the finding of benefits of increased public exposure in capital markets for a company but the benefits from information asymmetry reductions appear to be small. The benefits

of voluntary IFRS adoption still needs more research as the IFRS for SMEs and IFRS will be more widely used in accounting in future. Further research could focus more on the corporate and ownership structures regarding the adoption of IFRS. In this research one country to note is Portugal where IFRS is permitted only for companies belonging to a company group where IFRS regulations are used but the data shows all companies in the sample to report according to IFRS. This would need further research.

As the benefits of voluntary IFRS adoption are larger for an early adopter than late adopters (Cuijpers et al. 2005) it is an interesting topic to try to reason and find evidence on the benefits. The reasons for adoption and the minuscule number of companies adopting IFRS in the sample is an interesting topic for future research. As further research, trying to figure out the reasons why companies – especially SMEs – are not adopting IFRS, is an interesting challenge.

6. CONCLUSION

The research on finding determinants affecting the adoption of IFRS in SMEs focused on questions whether *international activities*, *operating country*, *size*, *reputation of auditor* and *profitability* of the company do affect accounting regulation choices. It was possible to find determinants affecting the adoption of IFRS. *The operating country of a company, the size of a company* and *the reputation of the auditor* can be seen as factors influencing the adoption of IFRS. For *international activities of a company* and *the profitability of a company* there is statistical evidence on influence but the practical influence is minuscule.

This research shows that *operating country* of a company is significant in the choice of accounting policy in countries with sufficient data. For some countries, the data is not comprehensive enough for a definite research outcome. In the sample of 116 602 companies from 21 European countries, 9.4% report using IFRS while the remaining 90.6% use DAS in their reporting.

Based on the large number of total observations (n=116 602) the results on other determinants are statistically significant but only *the size of a company* and *the reputation of the auditor* are meaningful as the practical effect of profitability or international operations are unclear. It is shown that *the size of a company is positively associated with voluntary IFRS adoption.* The results regarding the size of a company are consistent with previous research, the size of a company can be seen as a determinant on financial information disclosure choices as also pointed out by Kanto and Schadewitz (1997). *Employing a big four audit company is positively associated with IFRS adoption* and was seen as the most determining variable on IFRS adoption not regarding the country variable. In earlier research on Italian companies Matonti et al. (2012) find similar evidence on IFRS adopters more often utilizing big four audit company.

The properties of SMEs using IFRS accounting regulations were concurrent with the characteristics of listed companies discussed in earlier research. Listed companies are obliged to use IFRS and more often use a big four audit company and do engage in more international operations. The IFRS adopters of this research share the same tendency.

The data was analyzed using logistic regression on the adoption of IFRS. There were two logistic regression models utilized in the research, the full model including country dummy variables and the simplified model excluding country dummy variables. The results using the full model and comparison to the simplified model showed the effect of country in adoption. The simplified model did not provide results consistently with hypothesis or with prior literature. The research was limited to SMEs perhaps leaving the most potential group of voluntary IFRS adopters outside the scope of research, large unlisted companies.

This research does not provide explanations or evidence on the reasons and consequences of IFRS adoption. The benefits of IFRS adoption are not explored and it still needs more research regarding the increasing usage of IFRS and the introduction of IFRS for SMEs. The reasons for adoption and the minuscule number of companies adopting IFRS in the sample of European countries is an interesting topic for future research.

This research was motivated by the debate on the benefits and costs of adopting IFRS. The purpose of this study was to shed light on factors affecting the usage and adoption of different accounting standards and to point out some of the factors affecting SMEs adoption of IFRS. The results of this research verify the similarities of SMEs and larger companies in adoption of IFRS. The determinants for SMEs in the adoption of IFRS can be derived from earlier research on listed companies. The focus was on SMEs and determining the factors affecting the adoption of IFRS in different countries of Europe. Previous literature claims that the adoption of IFRS increases financial information comparability internationally and nationally and as a consequence the usability and usefulness of financial information. Literature is also contradicting emphasizing the costs and complexity of wider implementation of IFRS over the benefits or presumed enhancements in financial statement quality.

Academic research on the choices of accounting policy among unlisted companies is scarce perhaps as a result of missing public disclosure requirements rendering the data acquisition process more demanding and challenging. Majority of companies in EU and the World are SMEs and the voluntary adoption of IFRS in European countries is an interesting topic.

References

Aksu, Mine and Hassan Espahbodi (2016). The Impact of IFRS Adoption and Corporate Governance Principles on Transparency and Disclosure: The Case of Borsa Istanbul. *Emerging Markets Finance & Trade* 52.4, pp. 1013–1028. ISSN: 1540496X.

Alon, Anna and Peggy D. Dwyer (2014). Early Adoption of IFRS as a Strategic Response to Transnational and Local Influences. *The International Journal of Accounting* 49.3, pp. 348–370. ISSN: 0020-7063. DOI: 10.1016/j.intacc.2014.07.003.

Alp, Ali and Saim Ustundag (2009). Financial reporting transformation: the experience of Turkey. *Critical Perspectives on Accounting* 20.5, pp. 680–699. ISSN: 1045-2354. DOI: 10.1016/j.cpa.2007.12.005.

Armstrong, Christopher S., Mary E. Barth, Alan D. Jagolinzer and Edward J. Riedl (2010). Market Reaction to the Adoption of IFRS in Europe. *Accounting Review* 85.1, pp. 31–61. ISSN: 00014826.

Ashbaugh, Hollis (2001). Non-US Firms' Accounting Standard Choices. *Journal of Accounting & Public Policy* 20.2, pp. 129–153. ISSN: 02784254.

Bae, Kee-Hong, Tan Hongping and Michael Welker (2008). International GAAP Differences: The Impact on Foreign Analysts. *Accounting Review* 83.3, pp. 593–628. ISSN: 00014826.

Ball, Ray (2006). International Financial Reporting Standards (IFRS): pros and cons for investors. *Accounting & Business Research (Wolters Kluwer UK)* 36, pp. 5–27. ISSN: 00014788.

Ball, Ray and Lakshmanan Shivakumar (2005). Earnings quality in UK private firms: comparative loss recognition timeliness. *Journal of Accounting and Economics* 39.1, pp. 83–128. ISSN: 0165-4101. DOI: 10.1016/j.jacceco.2004.04.001.

Barth, Mary E., Wayne R. Landsman and Mark H. Lang (2008). International Accounting Standards and Accounting Quality. *Journal of Accounting Research* 46.3, pp. 467–498. ISSN: 00218456.

Al-Basteki, Hasan (1995). Voluntary adoption of international accounting standards by Bahraini corporations (117 A). English. *Advances in International Accounting* 8, p. 47.

Beck, Thorsten, Asli Demirgüç-Kunt and Vojislav Maksimovic (2006). The influence of financial and legal institutions on firm size. *Journal of Banking & Finance* 30.11, pp. 2995–3015. ISSN: 0378-4266. DOI: 10.1016/j.jbankfin.2006.05.006.

Belkaoui, Ahmed (1992). *Accounting theory.* London: Academic Press. 539 pp.

Bennouri, Moez, Mehdi Nekhili and Philippe Touron (2015). Does Auditor Reputation "Discourage" Related-Party Transactions? The French Case. *Auditing: A Journal of Practice & Theory* 34.4, pp. 1–32. ISSN: 02780380.

Botosan, Christine A. and Marlene A. Plumlee (2002). A Re-examination of Disclosure Level and the Expected Cost of Equity Capital. *Journal of Accounting Research* 40.1, pp. 21–40. ISSN: 1475-679X. DOI: 10.1111/1475-679X.00037.

Brackney, Kennard S. and Philip R. Witmer (2005). The European Union's Role in International Standards Setting. (cover story). *CPA Journal* 75.11, pp. 18–27. ISSN: 07328435.

Brochet, Francois, Alan D. Jagolinzer and Edward J. Riedl (2013). Mandatory IFRS Adoption and Financial Statement Comparability. *Contemporary Accounting Research* 30.4, pp. 1373–1400. ISSN: 08239150.

Brown, Philip and Ann Tarca (2005). A commentary on issues relating to the enforcement of International Financial Reporting Standards in the EU. *European Accounting Review* 14.1, pp. 181–212. ISSN: 09638180.

Bunea-Bontaş, Aurora Cristina, Mihaela Cosmina Petre and Grazia Oana Petroianu (2011). Consensual and Controversial Issues on IFRS for SMEs. *Anale. Seria Ştiinţe Economice. Timişoara* XVII, pp. 495–501.

Bureau van Dijk (2016). *Orbis - Company information across the globe.* URL: https://orbis.bvdinfo.com (visited on 04/10/2016).

Burghstahler, David C., Luzi Hail and Christian Leuz (2006). The Importance of Reporting Incentives: Earnings Management in European Private and Public Firms. *Accounting Review* 81.5, pp. 983–1016. ISSN: 00014826.

Bushman, Robert M. and Abbie J. Smith (2001). Financial accounting information and corporate governance. *Journal of Accounting and Economics* 32.1-3, pp. 237–333. ISSN: 0165-4101. DOI: 10.1016/S0165-4101(01)00027-1.

Cameran, Mara, Domenico Campa and Angela Pettinicchio (2014). IFRS Adoption Among Private Companies: Impact on Earnings Quality. *Journal of Accounting, Auditing & Finance* 29.3, pp. 278–305. ISSN: 0148558X.

Carmona, Salvador and Marco Trombetta (2008). On the global acceptance of IAS/IFRS accounting standards: The logic and implications of the principles-based system. *Journal of Accounting & Public Policy* 27.6, pp. 455–461. ISSN: 02784254.

Chand, P., C. Patel and A. Patel (2010). Interpretation and application of "new" and "complex" international financial reporting standards in Fiji: Implications for convergence of accounting standards. *Advances in Accounting* 26.2, pp. 280–289. DOI: 10.1016/j.adiac.2010.08.004.

Chand, Parmod, Arvind Patel and Michael White (2015). Adopting International Financial Reporting Standards for Small and Medium-sized Enterprises. *Australian Accounting Review* 25.2, pp. 139–154. ISSN: 1835-2561. DOI: 10.1111/auar.12067.

Chaney, Paul K., Debra Jeter and Lakshmanan Shivakumar (2004). Self-Selection of Auditors and Audit Pricing in Private Firms. *Accounting Review* 79.1, pp. 51–72. ISSN: 00014826.

Chen, J. (2006). Development of Chinese small and medium-sized enterprises. *Journal of Small Business and Enterprise Development* 13.2, pp. 140–147. DOI: 10.1108/14626000610665854.

Choo, Chun Wei (2002). *Information Management for the Intelligent Organization: The Art of Scanning the Environment*. 3rd. Information Today. 325 pp.

Christensen, Hans B., Luzi Hail and Christian Leuz (2013). Mandatory IFRS reporting and changes in enforcement. *Journal of Accounting & Economics* 56, pp. 147–177. ISSN: 01654101.

Christensen, J.A. and J.S. Demski (2003). *Accounting Theory: An Information Content Perspective*. McGraw-Hill Higher Education. McGraw-Hill/Irwin. ISBN: 9780072296914.

Cieslewicz, Joshua K. (2014). Relationships between national economic culture, institutions, and accounting: Implications for IFRS. *Critical Perspectives on Accounting* 25.6, pp. 511–528. ISSN: 1045-2354. DOI: 10.1016/j.cpa.2013.03.006.

Cole, Vicky, Diane Breesch and Joël Branson (2009). *Are Users of Financial Statements of Publicly and Non-Publicly Traded Companies Different or Not? An Empirical Study*. URL: http://ssrn.com/abstract=1407566 (visited on 02/10/2016).

Council of European Union (2002). *Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards*. URL: http://eur-lex.europa.eu/legal-content/EU/TXT/?uri=CELEX:32002R1606.

Cuijpers, Rick and Willem Buijink (2005). Voluntary Adoption of Non-Local GAAP in the European Union: A Study of Determinants and Consequences. *European Accounting Review* 14.3, pp. 487–524. ISSN: 09638180.

Daske, Holger, Luzi Hail, Christian Leuz and Rodrigo Verdi (2008). Mandatory IFRS Reporting around the World: Early Evidence on the Economic Consequences. *Journal of Accounting Research* 46.5, pp. 1085–1142. ISSN: 1475-679X. DOI: 10.1111/j.1475-679X.2008.00306.x.

Daske, Holger, Luzi Hail, Christian Leuz and Rodrigo Verdi (2013). Adopting a Label: Heterogeneity in the Economic Consequences Around IAS/IFRS Adoptions. *Journal of Accounting Research* 51.3, pp. 495–547.

Devi, Susela S. and Helen R. Samujh (2015). The Political Economy of Convergence: The Case of IFRS for SMEs. *Australian Accounting Review* 25.2, pp. 124–138. ISSN: 1835-2561. DOI: 10.1111/auar.12048.

Diamond, Douglas W. and Robert E. Verrecchia (1991). Disclosure, Liquidity, and the Cost of Capital. *Journal of Finance* 46.4, pp. 1325–1359. ISSN: 00221082.

Dumontier, Pascal and Bernard Raffournier (1998). Why Firms Comply Voluntarily with IAS: an Empirical Analysis with Swiss Data. *Journal of International Financial Management & Accounting* 9.3, pp. 216–245. ISSN: 09541314.

Eierle, Brigitte and Axel Haller (2009). Does Size Influence the Suitability of the IFRS for Small and Medium-Sized Entities? - Empirical Evidence from Germany. *Accounting in Europe* 6.2, pp. 195–230. ISSN: 17449480. DOI: 10.1080/17449480903115779.

European Commission (2003). *Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises.* URL: http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32003H0361&rid=1 (visited on 10/10/2015).

European Commission (2013a). *Commission Wants to Simplify Life for SMEs by Easing the Top 10 Most Burdensome EU Laws.* URL: http://europa.eu/rapid/press-release_IP-%2013-188_en.htm (visited on 04/04/2016).

European Commission (2013b). *Financial reporting obligations for limited liability companies (Accounting Directive) - frequently asked questions.* URL: http://europa.eu/rapid/press-release_MEMO-13-540_en.htm (visited on 10/10/2015).

European Parliament and Council of the European Union (2013). *Directive 2013/34/EU.* European Parliament. URL: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013L0034 (visited on 04/10/2016).

Evans, Lisa, Guenther Gebhardt, Martin Hoogendoorn, Jan Marton, Roberto Di Pietra, Araceli Mora, Frank Thinggård, Petri Vehmanen and Alfred Wagenhofer (2005). Problems and Opportunities of an International Financial Reporting Standard for Small and Medium-sized Entities. The EAA FRSC's

Comment on the IASB's Discussion Paper. *Accounting in Europe* 2.1, pp. 23–45. DOI: 10.1080/09638180500378949.

Francis, Jere R., Inder K. Khurana, Xiumin Martin and Raynolde Pereira (2008). The Role of Firm-Specific Incentives and Country Factors in Explaining Voluntary IAS Adoptions: Evidence from Private Firms. *European Accounting Review* 17.2, pp. 331–360. ISSN: 09638180.

Fülbier, Rolf Uwe and Joachim Gassen (2010). *IFRS for European small and medium-sized entities? A theoretical and empirical analysis.* URL: http://www.dgrv.de/webde.nsf/7d5e59ec98e72442c1256e%205200432395/eeef676b1f36f7c1c125%20773c00289240/$FILE/F%C3%BClbier_Gassen_DGRV_Researc%20h_Report_April_2010.pdf (visited on 02/10/2016).

Gassen, Joachim and Thorsten Sellhorn (2006). *Applying IFRS in Germany: Determinants and Consequences.* URL: http://ssrn.com/abstract=906802 (visited on 04/04/2016).

El-Gazzar, Samir M., Philip M. Finn and Rudy Jacob (1999). An empirical investigation of multinational firms' compliance with International Accounting Standards. *The International Journal of Accounting* 34.2, pp. 239–248. ISSN: 0020-7063. DOI: 10.1016/S0020-7063(99)00005-9.

Gordon, Paul, Claire Roberts and Pauline Weetman (2006). *International Financial Reporting: A Comparative Approach.* Prentice Hall.

Gray, S.J. (1988). Towards a Theory of Cultural on the Development of Accounting Influence Systems Internationally. *Abacus* 24.1, pp. 1–15. ISSN: 00013072.

Guenther, David A and Danqing Young (2000). The association between financial accounting measures and real economic activity: a multinational study. *Journal of Accounting and Economics* 29.1, pp. 53–72. ISSN: 0165-4101. DOI: 10.1016/S0165-4101(00)00013-6.

Hail, Luzi, Christian Leuz and Peter Wysocki (2010a). Global Accounting Convergence and the Potential Adoption of IFRS by the U.S. (Part I): Conceptual Underpinnings and Economic Analysis. *Accounting Horizons* 24.3, pp. 355–394. ISSN: 08887993.

Hail, Luzi, Christian Leuz and Peter Wysocki (2010b). Global Accounting Convergence and the Potential Adoption of IFRS by the U.S. (Part II): Political Factors and Future Scenarios for U.S. Accounting Standards. *Accounting Horizons* 24.4, pp. 567–588. ISSN: 08887993.

Hoogendoorn, Martin (2006). International Accounting Regulation and IFRS Implementation in Europe and Beyond – Experiences with First-time Adoption in Europe. *Accounting in Europe* 3, pp. 23–26. ISSN: 17449480.

Iatridis, George (2010). International Financial Reporting Standards and the quality of financial statement information. *International Review of Financial Analysis* 19.3, pp. 193–204. ISSN: 1057-5219. DOI: 10.1016/j.irfa.2010.02.004.

IFRS (2009). *About the IFRS Interpretations Committee.* URL: http://www.ifrs.org/The-organisation/Members-of-the-IFRIC/Pages/About-the-IFRIC.aspx (visited on 09/10/2015).

IFRS (2013a). *IFRS Application Around the World - Jurisdictional Profile: Finland.* URL: http://www.ifrs.org/Use-around-the-world/Documents/Jurisdiction-profiles/Finland-IFRS-Profile.pdf (visited on 04/04/2016).

IFRS (2013b). *IFRS Application Around the World - Jurisdictional Profile: Greece.* URL: http://www.ifrs.org/Use-around-the-world/Documents/Jurisdiction-profiles/Greece-IFRS-Profile.pdf (visited on 04/04/2016).

IFRS (2013c). *IFRS Application Around the World - Jurisdictional Profile: Portugal.* URL: http://www.ifrs.org/Use-around-the-world/Documents/Jurisdiction-profiles/Portugal-IFRS-Profile.pdf (visited on 04/04/2016).

IFRS (2015a). *IFRS Application Around the World - Jurisdictional Profile: Czech Republic.* URL: http://www.ifrs.org/Use-around-the-world/Documents/Jurisdiction-profiles/Czech-Republic-IFRS-Profile.pdf (visited on 04/04/2016).

IFRS (2015b). *IFRS Application Around the World - Jurisdictional Profile: Denmark.* URL: http://www.ifrs.org/Use-around-the-world/Documents/Jurisdiction-profiles/Denmark-IFRS-Profile.pdf (visited on 04/04/2016).

IFRS (2015c). *IFRS Application Around the World - Jurisdictional Profile: Estonia.* URL: http://www.ifrs.org/Use-around-the-world/Documents/Jurisdiction-profiles/Estonia-IFRS-Profile.pdf (visited on 04/04/2016).

IFRS (2015d). *IFRS Application Around the World - Jurisdictional Profile: Germany.* URL: http://www.ifrs.org/Use-around-the-world/Documents/Jurisdiction-profiles/Germany-IFRS-Profile.pdf (visited on 04/04/2016).

IFRS (2015e). *IFRS Application Around the World - Jurisdictional Profile: Malta.* URL: http://www.ifrs.org/Use-around-the-world/Documents/Jurisdiction-profiles/Malta-IFRS-Profile.pdf (visited on 04/04/2016).

IFRS (2015f). *IFRS Application Around the World - Jurisdictional Profile: Slovakia.* URL: http://www.ifrs.org/Use-around-the-world/Documents/Jurisdiction-profiles/Slovakia-IFRS-Profile.pdf (visited on 04/04/2016).

IFRS (2015g). *IFRS Application Around the World - Jurisdictional Profile: United Kingdom.* URL: http://www.ifrs.org/Use-around-the-world/Documents/Jurisdiction-profiles/United-Kingdom-IFRS-Profile.pdf (visited on 04/04/2016).

IFRS (2016). *IFRS Application Around the World - Jurisdictional Profile: Croatia.* URL: http://www.ifrs.org/Use-around-the-world/Documents/Jurisdiction-profiles/Croatia-IFRS-Profile.pdf (visited on 02/04/2016).

Inchausti, Begoña Giner (1997). The influence of company characteristics and accounting regulation on information disclosed by Spanish firms. *European Accounting Review* 6.1, pp. 45–68. ISSN: 09638180.

International Accounting Standards Board (IASB) (2006). IASC Foundation Constitution. URL: http://mf.rks-gov.net/desk/inc/media/B9D66410-13B5-40C4-BCB0-015AA9ADEBCC.doc (visited on 04/04/2016).

Jaggi, Bikki and Pek Yee Low (2000). Impact of Culture, Market Forces, and Legal System on Financial Disclosures. *The International Journal of Accounting* 35.4, pp. 495–519. ISSN: 0020-7063. DOI: 10.1016/S0020-7063(00)00076-5.

Jarva, Henry and Anna-Maija Lantto (2012). Information Content of IFRS versus Domestic Accounting Standards: Evidence from Finland. *The Finnish Journal of Business Economics* 2, pp. 141–177.

Jean Jinghan, Chen and Zhang Haitao (2010). The Impact of Regulatory Enforcement and Audit upon IFRS Compliance - Evidence from China. *European Accounting Review* 19.4, pp. 665–692. ISSN: 09638180.

Jeanjean, Thomas and Hervé Stolowy (2008). Do accounting standards matter? An exploratory analysis of earnings management before and after IFRS adoption. *Journal of Accounting and Public Policy* 27.6, pp. 480–494. ISSN: 0278-4254. DOI: 10.1016/j.jaccpubpol.2008.09.008.

Jensen, Michael C. and William H. Meckling (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics* 3.4, pp. 305–360. ISSN: 0304405X.

Jermakowicz, Eva K. and Sylwia Gornik-Tomaszewski (2006). Implementing IFRS from the perspective of EU publicly traded companies. *Journal of International Accounting, Auditing & Taxation* 15.2, pp. 170–196. ISSN: 10619518.

Jermakowicz, Eva K., Jenice Prather-Kinsey and Inge Wulf (2007). The Value Relevance of Accounting Income Reported by DAX-30 German Companies. *Journal of International Financial Management & Accounting* 18.3, pp. 151–191. ISSN: 09541314.

Jermakowicz, Eva K., Alan Reinstein and Natalie Tatiana Churyk (2014). IFRS framework-based case study: DaimlerChrysler – Adopting IFRS accounting policies. *Journal of accounting education* 32.3, pp. 288–304.

Jones, Stewart and Alison D. Higgins (2006). Australia's switch to international financial reporting standards: a perspective from account preparers. *Accounting & Finance* 46.4, pp. 629–652. ISSN: 08105391.

Kanto, Antti J. and Hannu J. Schadewitz (1997). A multidimensional model for the disclosure policy of a firm. *Scandinavian Journal of Management* 13.3, pp. 229–249. ISSN: 0956-5221. DOI: 10.1016/S0956-5221(97)00007-9.

Kim, Jeong-Bon and Haina Shi (2012). IFRS reporting, firm-specific information flows, and institutional environments: international evidence. *Review of Accounting Studies* 17.3, pp. 474–517. ISSN: 13806653.

Kotler, Philip, Kevin Lane Keller, Mairead Brady, Malcolm Goodman and Torben Hansen (2012). *Marketing Management*. 2nd ed. United Kingdom: Pearson Education Ltd. ISBN: 9780273743613.

Kvaal, Erlend and Christopher Nobes (2010). International differences in IFRS policy choice: a research note. *Accounting & Business Research (Wolters Kluwer UK)* 40.2, pp. 173–187. ISSN: 00014788.

Lang, Mark and Russell Lundholm (1993). Cross-Sectional Determinants of Analyst Ratings of Corporate Disclosures. *Journal of Accounting Research* 31.2, pp. 246–271. ISSN: 00218456.

Lantto, Anna-Maija (2014). International Financial Reporting Standards adoption in a continental European context: perspectives of preparers. PhD thesis. University of Oulu.

Lantto, Anna-Maija and Petri Sahlström (2009). Impact of International Financial Reporting Standard adoption on key financial ratios. *Accounting & Finance* 49.2, pp. 341–361. ISSN: 08105391.

Lee, Young Hwan, Sun A Kang and Sang Min Cho (2015). The effect of voluntary IFRS adoption by unlisted firms on earnings quality and the cost of debt: empirical evidence from Korea. *Journal of Business Economics & Management* 16.5, pp. 931–948. ISSN: 16111699.

Leppiniemi, Jarmo and Risto Walden (2014). *Tilinpäätös- ja verosuunnittelu*. Helsinki: Talentum. 544 pp.

Leuz, Christian and Robert E. Verrecchia (2000). The Economic Consequences of Increased Disclosure. *Journal of Accounting Research* 38, pp. 91–124. ISSN: 00218456, 1475679X.

Li, Siqi (2010). Does Mandatory Adoption of International Financial Reporting Standards in the European Union Reduce the Cost of Equity Capital?. *Accounting Review* 85.2, pp. 607–636. ISSN: 00014826.

Lueg, Rainer, Pawel Punda and Michael Burkert (2014). Does transition to IFRS substantially affect key financial ratios in shareholder-oriented common law

regimes? Evidence from the UK. *Advances in Accounting* 30.1, pp. 241–250. ISSN: 0882-6110. DOI: 10.1016/j.adiac.2014.03.002.

Maddala, G.S. (1991). A Perspective on the Use of Limited-Dependent and Qualitative Variables Models in Accounting Research. *Accounting Review* 66.4, pp. 788–807. ISSN: 00014826.

Matonti, Gaetano and Giuseppe Iuliano (2012). Voluntary Adoption of IFRS by Italian Private Firms: A Study of the Determinants. *Eurasian Business Review* 2.2, pp. 43–70. ISSN: 13094297.

Mayda, Anna Maria and Dani Rodrik (2005). Why are some people (and countries) more protectionist than others? *European Economic Review* 49.6, pp. 1393–1430. ISSN: 0014-2921. DOI: 10.1016/j.euroecorev.2004.01.002.

Meek, Gary K., Clare B. Roberts and Sidney J. Gray (1995). Factors Influencing Voluntary Annual Report Disclosures by U.S., U.K. and Continental European Multinational Corporations. *Journal of International Business Studies* 26.3, pp. 555–572. ISSN: 00472506.

Meek, Gary K. and Wayne B. Thomas (2004). A Review of Markets-Based International Accounting Research. *Journal of International Accounting Research* 3.1, pp. 21–41. ISSN: 15426297.

Nobes, Christopher (1998). Towards a General Model of the Reasons for International Differences in Financial Reporting. *Abacus* 34.2, pp. 162–187. ISSN: 00013072.

Nobes, Christopher (2010). On Researching into the Use of IFRS by Private Entities in Europe. *Accounting in Europe* 7.2, pp. 213–226. ISSN: 17449480.

Nobes, Christopher and Robert Parker (2006). *Comparative International Accounting*. Pearson Education. 576 pp.

Paananen, Mari and Lin Henghsiu (2009). The Development of Accounting Quality of IAS and IFRS over Time: The Case of Germany. *Journal of International Accounting Research* 8.1, pp. 31–55. ISSN: 15426297.

Peek, Erik, Rick Cuijpers and Willem Buijink (2010). Creditors' and Shareholders' Reporting Demands in Public Versus Private Firms: Evidence from Europe. *Contemporary Accounting Research* 27.1, pp. 49–91. ISSN: 08239150.

Perera, Dinuja and Parmod Chand (2015). Issues in the adoption of international financial reporting standards (IFRS) for small and medium-sized enterprises (SMES). *Advances in Accounting* 31.1, pp. 165–178. ISSN: 0882-6110. DOI: 10.1016/j.adiac.2015.03.012.

Salmi, Ilari (2012). *Mitä tilinpäätös kertoo.* Helsinki: Edita. 306 pp.

Schipper, Katherine (2005). The introduction of International Accounting Standards in Europe: Implications for international convergence. *European Accounting Review* 14.1, pp. 101–126. ISSN: 09638180.

Schmid, David, Ralph Martino and Chen Wu, eds. (2015). *IFRS adoption by country.* PricewaterhouseCoopers Ltd. URL: http://www.pwc.com/us/en/issues/ifrs-reporting/publications/assets/pwc-ifrs-by-country-2015.pdf (visited on 09/10/2016).

Sellhorn, Thorsten and Sylwia Gornik-Tomaszewskt (2006). Implications of the 'IAS Regulation' for Research into the International Differences in Accounting Systems. *Accounting in Europe* 3, pp. 187–217. ISSN: 17449480.

Singhvi, Surendra S. and Harsha B. Desai (1971). An Empirical Analysis of the Quality of Corporate Financial Disclosure. *Accounting Review* 46.1, p. 129. ISSN: 00014826.

Soderstrom, Naomi S. and Kevin Jialin Sun (2007). IFRS Adoption and Accounting Quality: A Review. *European Accounting Review* 16.4, pp. 675–702. ISSN: 09638180.

Tarca, Ann (2004). International Convergence of Accounting Practices: Choosing between IAS and US GAAP. *Journal of International Financial Management & Accounting* 15.1, pp. 60–91. ISSN: 09541314.

The European Confederation of Directors Associations (2010). *Corporate Governance Guidance and Principles for Unlisted Companies in Europe.* URL: http:

//ecoda.org/uploads/media/GUIDANCE_-_2010_CG_for_Unlisted_-_EU.pdf (visited on 09/10/2015).

Van Tendeloo, Brenda and Ann Vanstraelen (2005). Earnings management under German GAAP versus IFRS. *European Accounting Review* 14.1, pp. 155–180. ISSN: 09638180.

Watts, Ross L. and Jerold L. Zimmerman (1990). Positive Accounting Theory: A Ten Year Perspective. *Accounting Review* 65.1, pp. 131–156. ISSN: 00014826.

Wu, Joanna Shuang and Ivy Zhang (2010). *Accounting integration and comparability: Evidence from relative performance evaluation around IFRS adoption.* URL: http://dx.doi.org/10.2139/ssrn.1650782 (visited on 04/04/2016).

A APPENDIX

Table A.1: Pearson correlations between determinants of IFRS adoption

	EMPLOYEES	PROFIT	ROE	ASSETS	SUBS	SIZE	IFRS	AUDITOR
EMPLOYEES	1	−0.011	−0.016	0.119	0.091	0.431	−0.044	0.072
PROFIT	−0.011	1	0.383	0.050	0.024	0.057	−0.026	0.039
ROE	−0.016	0.383	1	−0.027	−0.019	−0.090	−0.046	0.041
ASSETS	0.119	0.050	−0.027	1	0.142	0.402	−0.011	0.073
SUBS	0.091	0.024	−0.019	0.142	1	0.211	−0.016	−0.009
SIZE	0.431	0.057	−0.090	0.402	0.211	1	−0.062	0.078
IFRS	−0.044	−0.026	−0.046	−0.011	−0.016	−0.062	1	−0.046
AUDITOR	0.072	0.039	0.041	0.073	−0.009	0.078	−0.046	1

B APPENDIX

Table B.1: ANOVA of full regression model

Statistic	N	Mean	St. Dev.	Min	Max
Df	5	4.800	8.497	1	20
Deviance	5	11,887.150	26,194.910	0.026	58,745.310
Resid. Df	6	116,595.300	9.092	116,577	116,601
Resid. Dev	6	62,523.560	24,097.900	13,336.380	72,772.140
Pr(>Chi)	5	0.174	0.389	0.000	0.871