Voluntary Adoption of International Financial Reporting Standards in Private Firms: The German Case

Abstract

This paper aims to investigate the incentives of German private firms to adopt IFRS voluntarily. Financial statements prepared according to IFRS compared with German GAAP provide readers with higher quality information since managerial discretion in using accounting method choices is restricted and additional disclosures are required under IFRS. Related research based on public companies reports many motivations why firms choose to apply IFRS instead of local GAAP. These public companies switch to IFRS for instance to lower the political costs, to facilitate the monitoring role of stakeholders or to respond to external pressures related to external contracting. Our paper confirms to a large extent these findings in our sample of German private companies. Political costs and pressures from outside stakeholders are the main drivers for German private firms to apply IFRS.

1. Introduction

In this paper, we analyze the determinants of the voluntary adoption of the International Financial Reporting Standards (IFRS)[1] by private (unlisted) German entities. The EU Regulation 1606/2002 requires listed firms in EU member states to apply IFRS promulgated by the International Accounting Standards Boards[2] in preparing consolidated accounts from 2005 onwards.[3] By this decision, the EU intends to increase the comparability, quality and transparency of accounting information among EU listed companies. Several EU countries already allowed quoted firms to apply IFRS on a voluntary basis before 2005. EU member states also have the option to permit or require private firms to publish their consolidated statements following these international accounting standards (§13 of EU Regulation 1606/2002). Many EU member states (e.g., Belgium, France, Germany or Ireland) make use of this possibility and already permit private firms to prepare their consolidated statements according to IFRS (EC, 2008).

Since it is argued that IFRS are of higher quality than many domestic accounting standards in the EU, the change to IFRS improves transparency. The accounting literature is however inconclusive about whether also private firms will realize benefits from the publication of higher quality accounting information. For instance, Ball and Shivakumar (2005) and Katz (2006) suggest that agency problems resulting from the separation between management and ownership are less pronounced for private firms compared to public firms and hence private firms will benefit less from improved financial reporting quality. This view however is not

[1] For ease of reading, we only use in the paper the term IFRS, but the reader should be aware that this term stands for the International Financial Reporting Standards developed by the International Accounting Standards Board (IASB) as well as the International Accounting Standards (IAS) issued by the predecessor of the IASB, i.e. the International Accounting Standards Committee.

[2] The IASB is a private accounting standard setter that aims to develop high quality accounting standards. The mission is embedded in its constitution and consists of the following objectives (IASC Foundation, 2009):

(a) to develop, in the public interest, a single set of high quality, understandable and enforceable global accounting standards that require high quality, transparent and comparable information in financial statements and other financial reporting to help participants in the world's capital markets and other users make economic decisions;

(b) to promote the use and rigorous application of those standards;

(c) in fulfilling the objectives associated with (a) and (b), to take account of, as appropriate, the special needs of small and medium-sized entities and emerging economies; and

(d) to bring about convergence of national accounting standards and International Accounting Standards and International Financial Reporting Standards to high quality solutions.

[3] In some EU member states, quoted firms preparing their financial statement according to another international accounting standard (e.g., U.S. GAAP) and firms issuing debt instruments were permitted to defer the application of IFRS until 2007.

confirmed by Eierle and Haller (2009) who conclude based on a survey conducted among German private firms that agency conflicts are also an issue in these entities. Many private entities have external shareholders who have to rely on financial statement information in order to get insight into firm performance. In addition, Francis et al. (2008) argue that private firms have contractual incentives to publish high quality information which affect their decision to apply a high quality accounting standard like IFRS. Therefore, most of our hypotheses are developed on the argument that in general firms are more likely to adopt IFRS when the benefits of applying these accounting rules outweigh the related costs.

Based on the previous assertion, we hence assume that IFRS is considered to be beneficial for private firms too. The use of IFRS for the preparation of consolidated financial statements should improve the comparability of firms across industries and across countries since the domestic accounting standards differ in recognition and valuation requirements. The increased comparability should facilitate the decision-making process of investors, creditors and other stakeholders since they possess high quality financial reporting information. Potential confusion in the interpretation of the financial statements is lower as well when firms commit to apply an internationally accepted accounting standard. The increased transparency should hence reduce the perceived risk and transaction costs, which lowers firms' cost of capital. The adoption of IFRS also increases firms' attractiveness to foreign investors since they are better able to monitor the firm (Barth et al., 2008). To sum up, the use of IFRS reduces the level of information asymmetry and facilitates contracting with external parties (Francis et al., 2008).

In our opinion, Francis et al. (2008) is the only study investigating the motivations of the IFRS adoption decision by private entities. Consistent with this study, we also focus on private firms as they represent a considerable amount of a country's GDP, as it allows us to better understand why firms choose to apply IFRS voluntarily and as accounting information in private firms is more important for monitoring and evaluation reasons due to the absence of market measures. We extend the study of Francis et al. (2008) by using archival data instead of survey data. The latter approach creates uncertainties about the generalization of the results. It limits the sample size and increases the possibility that the respondents are not fully representative for the underlying population. Using archival data allow us to include a larger set of firms in our analyses. In addition, Francis et al. (2008) were limited in their use of firm-specific variables due the scope of the survey and data availability of the database used.

The results our study are of interest to several parties. The IASB as well as national accounting standard setters obtain insight into which firms see benefit in adopting these international accounting standards (Dumontier and Raffournier, 1998). It is also interesting for potential and current investors to examine which firms are more transparent. A firm's decision to adopt IFRS may be a signal to potential investors and creditors of being transparent and credible. As argued by Ball et al. (2003), the application of high quality accounting standards is a necessary condition for high quality financial reporting.

In our study, we opt to examine German firms since a large number of private firms already apply these accounting standards (Eierle and Haller, 2009) and since the change from using German accounting standards to IFRS results in a substantial increase in firm transparency. Based on a sample of German firms, we observe that larger firms, firms with one or more dominant listed shareholders, firms with at least one dominant foreign shareholder and firms with at least one foreign subsidiary are more likely to use IFRS for the preparation of their consolidated financial statements than other firms. Firm leverage seems to be unrelated with the probability of adopting IFRS.

The remainder of the paper is structured as follows. Section 2 reviews the German accounting system and discusses extant research on the determinants and consequences of the voluntary compliance with IFRS. Section 3 develops our research hypotheses. The research design is elaborated in Section 4 and the research results are discussed in Section 5. Section 6 summarises the paper and provides questions for further research.

2. Prior literature

2.1 The legal and accounting environment in Germany

Financial statements are often employed by external stakeholders to monitor firm performance and firm's financial position and to monitor firm's contractual commitments (Francis et al., 2008). This monitoring role is facilitated when accounting standards are of a higher quality. In this respect, it is argued that IFRS are of higher quality than German accounting rules. Differences between IFRS and German GAAP are already discussed in detail in many studies (e.g. Van Tendeloo and Vanstraelen, 2003; Moya and Oliveras, 2006, Jermakowicz et al., 2007). To summarize, German accounting standards are more conservative compared to IFRS. German accounting rules are developed to satisfy the

information needs of stakeholders such as governments, owners, employees and creditors (Jermakowicz et al., 2007). In comparison, IFRS intends to primarily inform the shareholders. The stakeholder view employed in German accounting regulation puts a large emphasis on reliability, but this view limits the usefulness or relevance of financial statements to interpret firm's financial position and performance. The strong alignment between financial accounting and taxation creates incentives for German firms to use the flexibility in the accounting rules to minimize taxable income (Guenther and Young, 2000). An instrument allowed in German accounting standards, but prohibited in IFRS, is the possibility of creating hidden reserves. Firms use this mechanism to smooth earnings, thereby making the accounting numbers less informative. Hidden reserves are created when firms have high profits and are recognized as income when profits are low. Firms can create hidden reserves by expensing extraordinary depreciations or allowances in high-profit years and recognize these reserves in years with low-profit years. German accounting standards are characterized by fewer disclosure requirements and managerial discretion in accounting method choices compared to IFRS (Leuz and Verrecchia, 2000). When firms choose to adopt IFRS, they provide a signal to external parties of producing high quality accounting information. First, they commit to increased disclosures and second, they reduce their discretion in choosing accounting measurements when preparing their financial statements.

2.2 Determinants and consequences of adopting IFRS

Extant literature on the reasons of IFRS adoption mainly focused on public companies. The decision to use IFRS is hereby based on a trade-off between the benefits and costs related to this adoption. One major benefit is the increased confidence of foreign stakeholders when applying a set of international accounting standards (e.g. Dumontier and Raffournier, 1998; El Gazzar et al., 1999; Murphy, 1999; Tarca, 2004; Cuijpers and Buijink, 2005). Firms with higher levels of cross-border activities are more likely to comply with IFRS. Public firms with one or more listings on foreign stock exchanges are also more eager to adopt IFRS (e.g. El Gazzar et al., 1999; Murphy, 1999; Ashbaugh, 2001). The decision to use IFRS is also influenced by the amount of debt outstanding, but the direction of this association is unclear as mixed results are found (El Gazzar et al., 1999; Tarca, 2004).

In our opinion, Francis et al. (2008) is the only study investigating why private firms comply with IFRS. Based on survey data collected by the World Bank in 1999-2000, they observe

that firms' decision to apply IFRS is motivated by firm-specific as well as by country-specific factors. Firm-specific incentives matter more in developed countries than country factors as the benefits of improved governance are larger than the related costs. In particular, they find that larger firms, firms with more external financing, growth firms, firms with foreign shareholders and firms with export activities are more likely to apply IFRS. Hence, the authors conclude that the accounting choice depends on firms' incentives to improve the quality of their accounting information. Regarding country factors, Francis et al. (2008) observe that firms from countries with low legal protection or from countries where the judicial function does not stimulate the enforcement of contracting, are more eager to apply IFRS.

Many studies investigated the consequences of voluntary IFRS adoption by listed firms, but obtained mixed results. Barth et al. (2008) conclude that IFRS firms report higher quality accounting numbers proxied by lower earnings management practices, more value relevant accounting information and lower errors in financial analysts' earnings forecasts compared to non-IFRS firms. On the other hand, Van Tendeloo and Vanstraelen (2005) show for a sample of German public firms that IFRS adopters do not engage in less earnings management compared to non-IFRS adopters.

Other studies scrutinize the impact of IFRS adoption on firms' cost of capital. Since IFRS increases the level of disclosures, it is suggested that IFRS adopters benefit from a lower cost of equity as, from a theoretical point of view, enhanced disclosures reduce the cost of capital (Diamond and Verrecchia, 1991). The empirical findings are mixed however. Gassen et al. (2006) find lower levels of information asymmetry, proxied by bid-ask spread and trading volume, for firms applying IFRS compared to their counterparts. Cuijpers and Buijink (2005) are unable to support the assumption that IFRS firms benefit from a lower cost of equity capital compared to non-IFRS firms.

3. Hypothesis development

This section describes the hypothesized association between several firm-specific factors and the decision of firms to adopt IFRS. Extant literature mainly focuses on the determinants of the voluntary application of IFRS by public firms. In our paper, we include following factors

as potential determinants of IFRS adoption by private firms: firm size, listed shareholders, foreign shareholders, foreign subsidiaries and leverage. These indicators are proxies for firms' contractual incentives that may drive their decision to apply IFRS.

Firm size

When firms comply with IFRS, they commit themselves to publish more information compared to firms that apply local German GAAP. Since disclosure costs are relatively smaller for large firms than for small firms (Lang and Lundholm, 1993), large firms are more eager to adopt IFRS (Dumontier and Raffournier, 1998). One drawback of improved disclosures is the likelihood of increasing proprietary costs. However, large firms are less subject to these costs compared to small firms, thus increasing the willingness of large firms to comply with IFRS. Large firms also face higher political costs (Watts and Zimmerman, 1986). In order to increase confidence in their financial statements, large firms are more likely to adopt IFRS (Dumontier and Raffournier, 1998). In addition, large firms have more dispersed ownership structures, which leads to higher agency costs (Meek et al., 1995) and an increased likelihood of IFRS adoption to respond to shareholders' demand. Contractual incentives are also higher for large entities since they are more likely to engage in long-term financing then small entities (Beck et al., 2005), which increase the need for greater transparency. The pressure to produce high quality accounting information and additional disclosures are also higher for large firms. Based on these arguments, we state the following hypothesis:

H1: The voluntary adoption of IFRS is positively associated with firm size

Listed shareholders

Since listed companies in many countries are required to apply IFRS for the preparation of their consolidated statements, the adoption of the same accounting standard by their subsidiaries facilitates this process and hence reduces reporting costs. The application of IFRS by their subsidiaries also facilitates the monitoring role for the listed shareholder. Therefore we include a dummy variable in our model to capture whether or not the firm has a listed shareholder. Hence, we state following hypothesis:

H2: The voluntary adoption of IFRS is positively associated with the presence of a listed shareholder

Foreign shareholders

It is argued that foreign shareholders are less familiar with domestic accounting rules creating an information gap between the firm and their shareholders. The application of internationally recognized financial reporting standards allows foreign investors to better monitor the performance and the financial position of the firm (Khanna et al., 2004). In addition, financial statements based on IFRS include more information compared to financial statements based on domestic accounting standards so that a foreign shareholder is able to make more informed decisions. Since IFRS restricts the possibilities for corporate managers to distort financial statements, the adoption of IFRS facilitates the monitoring task of shareholders. The application of IFRS is an instrument to increase the transparency and credibility of the firm (Francis et al., 2008), this in turn increases the attractiveness of the firm for foreign investors (Covrig et al., 2009). Private companies with one or more foreign shareholders thus have an incentive to publish their financial statements according to IFRS in order to reduce the level of information asymmetry. Hence, we posit the following hypothesis.

H3: The voluntary adoption of IFRS is positively associated with the presence of a foreign shareholder

International activity

Firms operating internationally are more visible which increases the propensity of a firm to adopt IFRS. Firms operating abroad are more likely to distribute higher quality financial statement information to external parties than other companies (Tarca, 2004). Financial statements prepared according to IFRS creates confidence by foreign customers, suppliers or governments as they are more familiar with the interpretation of statements under IFRS than under domestic accounting rules (Dumontier and Raffournier, 1998). This reduces the uncertainty for these stakeholders when doing business with the firm. In our paper, we proxy the extent of internationality by the presence of at least one foreign subsidiary. Hence, we hypothesize:

H4: The voluntary adoption of IFRS is positively associated with the presence of a foreign subsidiary

Leverage

Firms have incentives to enhance their transparency (for instance by preparing high quality accounting information) in order to attract external financing at lower costs (Durnev and Kim, 2005). Extant research emphasizes that borrowing costs are larger for higher risks. Financial statements are used to monitor agency problems between shareholders and creditors. Income smoothing is often used by firms to reduce the perceived risks. The adoption of IFRS which restricts the possibilities of income smoothing increases the quality of financial statement information. As leverage is positively associated with the need for monitoring between shareholders and creditors, it can be argued that high leveraged firms are more eager to adopt IFRS in order to reduce borrowing costs compared to low leveraged firms. On the other hand, Zarzeski (1996) and Tarca (2004) argue that firms communicate with their creditors via private information channels. If firms in relative terms have more creditors, they feel less need to adopt IFRS. Firms that rely more on equity are characterized with higher levels of information asymmetry between managers and shareholders and hence are more sensitive to shareholders' demand for information. Empirical results about the association between leverage and the likelihood that firms adopt IFRS are mixed. Cuijpers and Buijink (2005) for instance observe significant associations in both directions depending on the country analysed. Hence, we posit:

H5: The voluntary adoption of IFRS is associated with firm leverage

4. Research design

This section describes the method used to test the predicted associations. The initial sample consists of all German firms that have prepared consolidated financial statements at year-end 2007 and are included in the Dafne and Amadeus database (both from Bureau Van Dyck). Dafne – including financial statement information for German entities - is used to obtain the accounting standards applied by a firm. The financial data are collected from the Amadeus database, since we had limited access to the Dafne database. The population of all German firms preparing consolidated financial statements in 2007 includes 3,580 firms. Within this group, 303 entities adopted IFRS (8.46% of the sample). Table 1 illustrates the extent to which German private firms adopt IFRS by industry (following the US SIC classification).

Insert Table 1 about here

Table 1 exhibits higher IFRS adoption rates by firms operating in the manufacturing and the services industry. Firms from the mining and construction industry and from the transportation and public utilities industry are less eager to adopt IFRS. For the remainder of the study, we exclude firms with financial activities (US SIC code 60-69) because of their specific accounting requirements. This restriction results in a sample of 2,304 firms, including 204 (8.85%) firms applying IFRS.

In order to test our hypotheses, we relate the firm-specific determinants with the probability that a firm adopts IFRS. We include capital intensity, profitability and industry dummies as control variables, but the direction of these variables on the adoption of IFRS is unclear. Capital intensity proxies for the barriers to entry (Dong and Antonakis, 2007). Firms with low barriers to entry (with a low level of fixed assets) are less likely to disclose information because new entrants may worsen a firm's competitive position. Since IFRS increase transparency about firms' operations, the likelihood that firms adopt IFRS is lower for firms with lower capital intensity rates, hence providing guidance for a positive association. On the other hand, Myers (1977) asserts that the need for monitoring is lower when firms proportionately posses more fixed assets compared with current assets since the latter are riskier. Firms with a high proportion of current assets are therefore less eager to engage in the application of IFRS, hence giving support for a negative association. Signally theory argues that better performing firms are more likely to increase their transparency (Inchausti, 1997). On the other hand, more profitable firms are reluctant to report additional information due to proprietary costs, reducing the likelihood of adopting IFRS. In our study, we also insert industry dummies as prior research documents differences in disclosures among industries (Aerts et al., 2007).

Since the dependent variable is dichotomous, we use a logistic regression model, defined as:

Prob (IFRS=1)= f(firm size, listed shareholders, foreign shareholders, foreign subsidiaries, leverage, capital intensity, profitability, industry dummies) (1)

Table 2 presents and defines the independent variables included in regression equation (1).

Insert Table 2 about here

5. Research results

The results section of the paper discusses the empirical results on the determinants of the IFRS adoption. First, section 5.1 presents distributional and univariate statistics. Section 5.2 reports multivariate regression results on the hypothesized associations.

5.1 Descriptive and univariate statistics

Table 3 presents mean statistics for the variables used in this study.

Insert Table 3 about here

Table 3 reports that 9% of the non-financial private firms included in the sample adopt IFRS in 2007. We observe that 11% of the sample firms have at least one listed shareholder (either domestic or foreign) owning at least 5% of firms' outstanding shares and 18% of the sample firms has at least one foreign important shareholder, again owning at least 5% of firms' outstanding shares. We further note that 29% of the sample firms have at least one subsidiary abroad. Table 3 also exhibits an average firm profitability of 5% and an average firm leverage of 35%. The latter variables include some extreme values. These outliers are excluded when performing the univariate analysis with respect to leverage and profitability and when conducting the multivariate analysis.

Next, we compare the firm-specific characteristics between IFRS adopters and non-IFRS adopters. We test potential differences for each variable using a t-test as well as a non-parametric Mann-Whitney U-test for the continuous variables and a chi-square test for the indicator variables. These results are presented in Table 4.

Insert Table 4 about here

Consistent with our expectations, the findings in Table 4 reveal that IFRS adopters are significantly larger than non-adopters. The probability that a firm complies with IFRS is significantly larger when either one of the shareholders is located in a foreign country or one of the shareholders is quoted on a stock exchange. The chi-square test also illustrates that firms with at least one subsidiary are more likely to prepare financial statements according to IFRS than firms without any subsidiary. The decision to adopt IFRS is unrelated with leverage, profitability and capital intensity. Table 4 exhibits almost similar mean statistics on these variables between both groups.

5.2 Multivariate regression results

This section provides the multivariate results of equation (1). Before discussing these results, we first present the correlations among the variables in Table 5.

Insert Table 5 about here

The results in Table 5 exhibit significant correlations in the predicted direction between the use of IFRS as accounting standard on the one hand and firm size, the presence of either a foreign or a listed shareholder and the presence of foreign subsidiaries on the other hand. Table 5 also indicates significant correlations among various independent variables, but these correlations are all below 0.50. In order to control for potential multicollinearity between the indicator variables capturing the presence of a foreign shareholder and the presence of a listed shareholder, we have run parsimonious models including either one of these variables. Our findings are not significantly influenced.

Table 6 presents the multivariate logistic regression results of equation (1) on the association between the use of IFRS by private firms and a set of firm-specific variables for which hypotheses were formulated.

Insert Table 6 about here

The multivariate regression results correspond with the univariate statistics. We observe that the coefficient for firm size has the expected direction. IAS adopters are bigger than non-adopters which is consistent with H1. The fact that one shareholder is listed on a stock

exchange is a motive for firms to comply with IFRS, supporting H2. Consistent with H3, our results exhibit a significant association between the existence of at least one foreign shareholder and the propensity that a firm uses IFRS as accounting standard. The fourth hypothesis states that firms operating internationally, proxied by the existence of at least one foreign subsidiary, are more likely to apply IFRS. The results in Table 5 support this assertion and confirm H4. In contrast with our expectations, leverage and profitability are unrelated with the decision of a firm to choose IFRS. The proportion of fixed assets is also unrelated with the decision of firms to apply IFRS. Finally, we observe that the industry membership is associated with a firm's motive to adopt IFRS.

6. Discussion

This study investigates explanatory factors for the voluntary adoption of IFRS by privately held firms in Germany. By applying IFRS, German private firms commit themselves to publish additional information and to restrict their discretion in accounting method choices. Both univariate and multivariate statistics reveal that large firms, firms with a foreign shareholder, firms with a listed shareholder and firms with foreign subsidiaries are more likely to comply with IFRS. Leverage is not significant at the usual levels. These findings are to a large extent comparable to Dumontier and Raffournier (1998) researching the motivations of complying with IFRS by Swiss public firms. These results hence confirm that political costs and the pressure from external shareholders are also the main motivations for private firms to adopt IFRS. Firms are unlikely to apply IFRS to facilitate the monitoring role for creditors.

Although this study provides us insight into the firm-level determinants of IFRS adoption, several limitations and topics for further research can be drawn up. This study only focuses on a single European country. Further research has to elaborate this study to other European countries in order to obtain an overall insight into the private firms' motivations for their decision to adopt a particular accounting standard. The impact of other variables on firms' decision to adopt IFRS has to be examined such as the ownership structure or the intention of firms to obtain a stock market listing. Additional research can focus on the economic consequences of IFRS adoption for private firms. Extant research on public entities reveals that firms benefit from a lower cost of capital with enhanced transparency. For privately held firms, measuring firm's cost of capital is difficult due to restricted availability of public data

and the absence of a public market based on which cost of capital proxies can be calculated. The publication of a particular set of IFRS for small and medium sized entities should facilitate the adoption of IFRS by private firms since it limits the level of detail and the number of disclosure requirements compared with full IFRS. Hence a considerable increase in the number of firms adopting IFRS can be expected, creating opportunities for further research.

7. References

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Tables

Table 1: Number of firms applying IFRS categorized by industry (N= 3,580)

US SIC code	Total sample	IFRS firms	Percentage
SEC 1: 10-17 Mining and Construction	110	6	5.45%
SEC 2: 20-39 Manufacturing	732	77	10.52%
SEC 3: 40-49 Transport and utilities	273	18	6.59%
SEC 4: 50-59 Wholesale trade	448	34	7.59%
SEC 5: 60-69 Finance, Insurance and retail estates	1276	99	7.76%
SEC 6: 70-89 Services	741	72	9.72%
All	3,580	303	8.46%

This table presents the sample size of our study divided by industry. Column "IFRS firms" includes the number of firms complying with IFRS for each industry.

Table 2: Variables description and measurement

Description	Measurement
IAS	Dummy variable representing 1 if a firm applies IFRS in 2007 and 0 otherwise
Size	Logarithm of total assets in 2007
Listed shareholder (LSH)	Dummy variable representing 1 if a firm has at least one listed shareholder and 0 otherwise
Foreign shareholder (FSH)	Dummy variable representing 1 if a firm has at least one foreign shareholder and 0 otherwise
Foreign subsidiaries (FSB)	Dummy variable representing 1 if a firm has at least one foreign subsidiary and 0 otherwise
Leverage (LEV)	Long-term debt scaled by total assets in 2007
Capital intensity (CAPI)	Total fixed assets scaled by total assets in 2007
Profitability (PRO)	Net results scaled by total assets in 2007

Table 3: Descriptive statistics of the independent variables

Variable	N	Mean	Minimum	Maximum	Standard deviation
IFRS	2,304	0.09	0	1	0.28
Size	2,304	11.49	8.23	17.70	1.33
Listed shareholder	2,304	0.11	0	1	0.32
Foreign shareholder	2,304	0.18	0	1	0.38
Foreign subsidiaries	2,304	0.29	0	1	0.45
Leverage	2,304	0.35	0.00	3.31	0.22
Capital intensity	2,304	0.43	0.00	1.00	0.23
Profitability	2,298	0.05	-0.94	2.55	0.10
SEC1	2,304	0.05	0	1	0.21
SEC2	2,304	0.32	0	1	0.47
SEC3	2,304	0.12	0	1	0.32
SEC4	2,304	0.19	0	1	0.40
SEC6	2,304	0.32	0	1	0.47

This table presents descriptive statistics of the variables included in the analysis.

Table 4: Results of the univariate analyses: IFRS versus non-IFRS firms

	Mean IFRS (N=204)	Mean Non-IFRS (N=2,100)	T-test	Mann-Withney test	Chi square
Size	12.80	11.36	15.48***	12.14***	
Listed shareholder	0.26	0.09			51.56***
Foreign shareholder	0.33	0.16			33.34***
Foreign subsidiaries	0.48	0.27			37.43***
Leverage[1]	0.34	0.35	0.16	0.27	
Capital intensity	0.44	0.42	0.72	0.86	
Profitability[2]	0.04	0.04	1.29	0.27	

[1] based on 2,289 observations including 201 observations applying IFRS.
[2] based on 2,278 observations including 200 observations applying IFRS.

Table 5: Correlation matrix of the independent variables (N=2,265)

	IFRS	SIZE	LSH	FSH	FSB	LEV	CAPI	PRO
IFRS	1.00							
SIZE	0.31***	1.00						
LSH	0.16***	0.17***	1.00					
FSH	0.12***	0.07***	0.48***	1.00				
FSB	0.13***	0.17***	0.02	0.07***	1.00			
LEV	0.00	0.09***	-0.01	0.02	-0.03	1.00		
CAPI	0.01	0.25***	-0.07***	-0.13***	-0.20***	0.25***	1.00	
PRO	-0.02	-0.04**	-0.02	-0.02	0.11***	-0.13***	-0.04**	1.00

Notes: This table presents the Pearson correlation coefficients between IAS: the adoption of IFRS, SIZE: firm size, LSH: listed shareholder, FSH: foreign shareholders, FSB: foreign subsidiary, LEV: leverage, CAPI: capital intensity, PRO: profitability.
*, **, *** denotes significance at the 10%, 5% and 1% respectively.

Table 6: Results of the logistic regression method (N=2,265)

	Coefficient (wald statistic)	Coefficient (wald statistic)	Coefficient (wald statistic)
Intercept	-10.765	-10.957	-10.618
	-14.609	-14.938***	-14.580***
SIZE	0.717	0.743	0.710
	11.678***	12.274***	11.648***
LSH	0.614		0.897
	2.578***		4.528***
FSH	0.469	0.765	
	2.131**	4.211***	
FSB	0.567	0.538	0.577
	3.144***	2.997***	3.193***
LEV	-0.747	-0.833	-0.651
	-1.628	-1.824*	-1.424
CAPI	-0.268	-0.367	-0.350
	-0.626	-0.860	-0.824
PRO	-2.048	-2.111	-2.155
	-1.662*	-1.705*	-1.737*
Industry dummies	Included	Included	included
Chi-square	248.69***	242.17***	244.32***
McFadden R^2	18.58	18.09	18.85

Notes: This table presents the coefficients for the following logistic regression equation:
P(IFRS=1) f(firm size, listed shareholder, foreign shareholder, foreign subsidiary, leverage, capital intensity, profitability, industry dummes)
With SIZE: firm size, LSH: listed shareholder, FSH: foreign shareholders, FSB: foreign subsidiary, LEV: leverage, CAPI: capital intensity, PRO: profitability; industry dummies.
*, **, *** denotes significance at the 10%, 5% and 1% respectively.