

IFRS Adoption and Accounting Quality: A Review

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Abstract

In 2002, the European Union (EU) Parliament passed a regulation that requires consolidated and simple accounts for all companies listed in the EU to use International Financial Reporting Standards (IFRS) for fiscal years starting after January 1, 2005. This change in accounting systems will have a large impact on the information environment for EU companies. This paper provides a review of the literature on adoption of different GAAPs. We thus provide background and guidance for researchers studying the change in accounting quality following widespread IFRS adoption in the EU. We argue that cross-country differences in accounting quality are likely to remain following IFRS adoption because accounting quality is a function of the firm's overall institutional setting, including the legal and political system of the country in which the firm resides.

IFRS Adoption and Accounting Quality: A Review

1. INTRODUCTION

International accounting literature provides evidence that accounting quality has economic consequences, such as costs of capital (Leuz and Verrecchia, 2000), efficiency of capital allocation (Bushman et al., 2006; Sun, 2006), and international capital mobility (Young and Guenther, 2002). On July 19, 2002, the European Union (EU) Parliament passed a regulation that requires all companies listed in the EU to adopt International Financial Reporting Standards (IFRS)¹ for fiscal years starting after January 1, 2005. Widespread adoption of IFRS will result in a fundamental change in the business environment, since prior to 2005, companies followed a variety of country-specific Generally Accepted Accounting Principles (GAAP). In an attempt to provide insight into the effects of the change, this paper reviews literature on the consequences of changing accounting principles and the determinants of accounting quality that are likely to influence the effect of the change. Our discussion focuses on the change from one GAAP to another, rather than changes within a specific set of accounting standards.

Accounting theory argues that financial reporting reduces information asymmetry by disclosing relevant and timely information (e.g., Frankel and Li 2004). Because there is considerable variation in accounting quality and economic efficiency across countries, international accounting systems provide an interesting setting to examine the economic consequences of financial reporting. The EU's movement to IFRS may provide new insights as

¹ IFRS are issued by the International Accounting Standards Board (IASB) since April 2001, when the IASB took over the responsibility of the International Accounting Standards Committee (IASC). The IASC issued International Accounting Standards (IAS), which were later revised and adopted to IFRS.

firms from different legal and accounting systems adopt a single accounting standard at the same time.

Improvement in the information environment following change to IFRS is contingent on at least two factors, however. First, improvement is based upon the premise that change to IFRS constitutes change to a GAAP that induces higher quality financial reporting. For example, Barth et al. (2006) find that firms adopting IFRS have less earnings management, more timely loss recognition, and more value relevance of earnings, all of which they interpret as evidence of higher accounting quality. Second, the accounting system is a complementary component of the country's overall institutional system (Ball, 2001) and is also determined by firms' incentives for financial reporting. La Porta et al. (1998) provide the first investigation of the legal system's effect on a country's financial system. They find that common law countries have better accounting systems and better protection of investors than code law countries. Other factors associated with financial reporting quality include the tax system (Guenther and Young, 2000; Haw et al., 2004), ownership structure (Ball and Shivakumar, 2005; Burgstahler et al., 2007; Fan and Wong, 2002), the political system (Leuz and Oberholzer-Gee, 2006), capital structure (Sun, 2006), and capital market development (Ali and Hwang, 2000).² Therefore, controlling for these institutional and firm-level factors becomes an important task in the empirical research design.

As a result of the interdependence between accounting standards and the country's institutional setting and firms' incentives, the economic consequences of changing accounting systems may vary across countries. Few papers have examined how these factors affect the

² There are many alternative definitions and measures of quality in the accounting literature. For example, Francis et al. (2004) summarize seven common earnings attributes that are often associated with earnings quality (associating these attributes with firms' cost of capital). We do not offer an exhaustive summary of this literature since there are a number of excellent recent surveys, including Schipper and Vincent (2003) and Dechow and Schrand (2004).

economic consequences of changing accounting standards. For example, Pincus et al. (2007) find that accrual anomaly is more prevalent in common law countries. Guenther and Young (2000), and Haw et al. (2004) find that accounting quality is associated with tax reporting incentives. Exploration of the interaction between these factors and accounting standards, can provide insights into differences in the economic consequences of changing accounting principles across countries.

We adopt a historical approach and focus on accounting literature published in leading accounting journals and selected working papers beginning in the 1990s.³ In section 2, we discuss research concerning the effects on companies of a change in GAAP. We begin with the effects of the European Commission's accounting directives in the 1980s, followed by a discussion of voluntary adoption of non-local accounting standards in the 1990s and early 2000s. We then review papers concerning stock market reaction to news of the mandatory adoption of IFRS by the EU around 2002. Section 3 provides a discussion of the effects of the IFRS adoption after 2005. Because mandatory adoption of IFRS is fairly recent, researchers do not yet have enough data for large-sample empirical tests of the change in accounting standards. We thus discuss factors from the international accounting and finance literatures that may affect financial reporting quality and should be considered in any future research. We believe that understanding these factors is important for developing expectations about effects of the change in regime. Section 4 concludes the paper.

³ Bushman and Smith (2001) include a subset of this literature. Their focus, however, is on the economic effects of corporate governance and financial reporting.

2. EFFECTS OF CHANGING ACCOUNTING PRINCIPLES

Historically, legal systems, combined with other political and economical differences, created a vast diversity of accounting systems, which makes meaningful comparison of financial reports across borders difficult. Europe is the origin of many legal systems: English, German, French and Scandinavian, and thus, prior to harmonization, there were extremely diverse, country-specific accounting systems. Recognizing this, members of the EU were the first countries to move toward harmonization of accounting standards.

In the late 70s and 80s, the European Union issued several directives to harmonize financial reporting practices to reduce diversity and facilitate cross-listings and cross-border investment. Accounting harmonization progressed in the 1990s with the improvement of IAS (the precursor of IFRS), harmonization events in the EU economy (e.g., adoption of a single currency), and political changes (e.g., disappearance of border control within the Schengen area). Although IFRS adoption was not mandatory until 2005, in the late 1990's, firms in some European countries were allowed to use IAS as a substitute for domestic accounting standards.

In this section, we trace the history of harmonization and then describe research associated with its different stages. This presents a clear picture of historical differences between national accounting standards in the EU relative to IFRS, as well as an understanding of the economic consequences of past accounting harmonization. Results from past literature can provide insights about the effects of mandatory IFRS adoption.⁴

⁴ A monopolistic view of accounting harmonization argues that using one single set of accounting standards will reduce the competition and thus the incentives of standard-setters to improve. However, Sunder (2002) argues that rather than using a single set of accounting standards, countries should allow firms to choose among several competing sets of accounting standards. Investors and firm managers will then choose accounting standards so as to reduce the firm's costs of capital. The competition among different standard-setters to attract firms' adoption will improve standard quality. Huddart et al. (1999) analytically model a situation where investors decide which exchange to list on based upon required disclosure level and personal risk aversion. In their model, stock exchanges competing for trading volumes will "race to the top" and raise disclosure requirements to attract risk-averse investors. Dye (2002) models the probability of the success of accounting standards from different

2.1 EC-directives related to accounting principle change

Historically, the European Commission's (EC) directives were aimed at making financial statements increasingly comparable in terms of format and general recording and measurement rules. The Fourth Directive, enacted in 1978, and the Seventh Directive, enacted in 1983, were the most influential directives during the early stages of financial reporting convergence within the EU. The Fourth Directive specifies "True and Fair View" (TFV) as an overriding principle of financial reporting, and defines the format and measurement of balance sheets and income statements. TFV is a broad concept in which accounts are reported with the aim of providing unbiased information about activities that affect a company's intrinsic value (Ekholm and Troberg 1998).⁵ The Seventh Directive addresses issues associated with consolidations. It sets forth requirements for consolidation and applies TVF to consolidated financial statements.

The most important effects of both directives are the adoption of TFV and relaxation of book-tax conformity for consolidated accounts (Joos and Lang, 1994). Although parent company financial statements can still follow tax returns, consolidated financial statements must adopt TFV, where measures that are tax-driven but do not reflect underlying economic activities are disallowed.⁶ As an exception, the German Accounting Directives Law of 1985

standard-setters. A detailed discussion of the optimal regulatory setting with regard to financial reporting is beyond the scope of the paper, however. We focus on empirical findings concerning accounting harmonization and let the results provide evidence regarding the effect of IFRS adoption in the EU.

⁵ TFV and 'fair presentation in conformity with generally accepted accounting principles' are two competing but not mutually exclusive financial reporting concepts (Kirk, 2001). The former is adopted mostly in the U.K. and its former colonies. The latter is used in the U.S. IFRS adopts the latter view, although TFV can override if applying the accounting standards may distort a firm's financial position (IAS 1). Parker and Nobes (1991) find that auditors in the U.K. mostly frequently use TFV-override to seek compliance when accounting rules are too new or not well-established.

⁶ This argument leads to a hypothesis that consolidated financial reports under TFV will be more reliable and value relevant. Consistent with this hypothesis, Abad et al. (2000) and Niskanen et al. (1998) find that consolidated financial statements are more value relevant than non-consolidated or "parent-only" financial statements.

expressly allowed tax-based accounting even when it was inconsistent with TFV (Harris et al., 1994).

The effectiveness of the directives is a source of debate within both industry and academia. The most prominent argument concerns appropriateness of TFV. TFV is an accounting principle that stems from accounting practice in the U.K. The intent of adopting TFV was to make accounting information more value relevant and more useful in providing information to determine stock prices. However, there are many other users of financial statements who have less of a demand for TFV. Governments demand tax information from companies, debt holders demand information about companies' ability to service their debt, and labor unions require information to negotiate labor contracts. Forces of informational demands from different contracting parties influence the outcome of financial reports. This is particularly evident in countries such as Germany and France, where TFV had not been previously adopted. Financial reports in these countries primarily reflected the needs of governmental entities for tax compliance, rather than provision of information for investors. In addition, interpretation of TFV in the U.K. has evolved over time.⁷ It may take time before all EU countries share similar interpretations of the basic principle.

Joos and Lang (1994) provide one of the first empirical investigations of the effect of the two directives. They compare firms in the U.K. and Germany. The objective of the U.K. accounting model is to provide useful information to shareholders, with a role that is distinct from tax reporting. The German model focuses on debtholders and serves both financial and tax reporting systems. U.K. and Germany thus represent two extremes of accounting systems in

⁷ To date, there is no authoritative interpretation of TFV. Most accountants in the U.K. accept Rutteman's (1984, p. 8) interpretation of TFV to be fair presentation and substance over form (Nobes and Parker, 1991). Parker and Nobes (1991), Nobes and Parker(1991), and McEnroe and Martens (1998) find there is a lack of consensus on TFV among investors, CFOs, and auditors.

Europe in existence at the time of the study. Joos and Lang (1994) argue that because of their focus, earnings of firms in the U.K. should better reflect underlying economic results and have higher correlation with stock prices than earnings of German firms. German accounting systems tend to report low earnings and shareholder's equity to satisfy the conservative nature of bank lending policies. They find that German firms have lower ROE, E/P, and book-to-market ratios relative to U.K. firms. However, they do not find that earnings explain stock prices and returns more in the U.K. than in Germany. They also fail to find evidence of convergence in ROE, E/P, and book-to-market ratio after implementation of the directives, and thus conclude that the directives may have provided more form than substance because of the differences in the incentives of financial reporting across countries.

Harris et al. (1994) perform a similar test, comparing the value relevance of German GAAP with U.S. GAAP before and after the effective date of the two directives. Their regression of returns on earnings and changes in earnings, deflated by beginning market value, shows no difference in explanatory power between German and US GAAP earnings, both before and after the two directives. In contrast, the regression of price on earnings and book values of equity shows a higher R-squared for U.S. samples. In addition, the explanatory power for German firms does not increase after the new law. Harris et al. (1994) also compare the value relevance of reported earnings with Deutsche Vereinigung für Finanzanalyse und Anlagenberatung (DVFA) earnings. DVFA is the German financial analyst society, which developed a metric to adjust reported earnings to "permanent earnings."⁸ They find limited evidence that using DVFA earnings increases R-squared. Consistent with Joos and Lang's

⁸ Harris et al. (1994) list the adjustment items for DVFA earnings in their Appendix A. Examples include expensing of start-up costs, reversing write-ups of assets, and eliminating extraordinary items.

(1994) findings on low book value of equity and earnings in Germany, regression coefficients on earnings and book values of equity in Harris et al. (1994) are higher for German firms.

Auer (1996) tests the informativeness of earnings announcements for a sample of Swiss firms that changed their accounting standards from the Swiss GAAP to either IAS or EC Directive-compliant accounting standards. He does not find significant increases in abnormal returns around earnings announcement dates before and after firms change to IAS or EC Directives and between IAS and EC Directives firms after the change. Auer (1996) does, however, find a significant increase in the variance of abnormal returns for firms changing to IAS. He concludes that earnings under IAS have more information content than earnings based on Swiss GAAP, but not more than earnings based on EC Directives. However, his mixed results may reflect issues arising from a small sample size (35 companies) and lack of controls for self-selection. The results indicate that IAS firms are much larger in market value and have higher interim reporting frequency than EC Directives firms. IAS firms may also have a higher analyst following (Ashbaugh and Pincus, 2001), which may result in greater availability of firm-specific information before earnings announcements and thus a reduction in the unexpected information content of released earnings.

In summary, although the purpose of EC directives is to unify the conceptual framework of financial reporting in the EU, research results regarding the success in achieving this goal are mixed. Nevertheless, EC directives are the first step towards accounting harmonization and provide useful insights into the difficulties of the project. They also result in a unified format of financial statements that facilitate cross-border research.

2.2 Voluntary adoption of IAS in the 1990s

Voluntary adoption of IAS accelerated in the late 1990s. Firms in need of foreign equity investment have to make listing decisions based on the characteristics of the exchange such as liquidity and trading values as well as the accounting standards that are required in that exchange. More firms started to choose IAS as stock exchanges in Europe became more favorably disposed toward IAS. Germany's New Market, the European equivalent of the U.S. NASDAQ, was launched in 1997 to aid small hi-tech companies in raising equity. All companies listed on the New Market were required to use either U.S. GAAP or IAS.

Another important reason for the surge in voluntary IAS adoption was that IAS standards became much improved. In 1987, in response to criticism of too much leeway for non-compliance and too many opportunities for earnings management under IAS, IASC initiated a major effort to constrain accounting choice. The Comparability and Improvements Project was completed in 1993, with a result of 10 new standards (Harris and Muller, 1999). Furthermore, a new set of core IAS standards was completed in 1998, which required firms claiming IAS compliance to comply fully with the standards (instead of only partial compliance required prior to 1998). The core standards received conditional endorsement from the International Organization of Securities Commission. During this period, several countries, including Austria, Belgium, France, Germany, Italy, and Switzerland allowed firms voluntarily choose IAS instead of their domestic GAAP (van Tendello and Vanstraelen, 2005).

2.2.1 Properties of IAS versus other national standards

German firms are the most frequently used comparison in studies of IAS. Unlike IAS's focus on shareholders, German GAAP has traditionally focused on stakeholders and uses the

“prudent” approach in financial reporting. Germany also has a strong legal system in terms of rule of law and efficiency of the judicial system to ensure compliance with the chosen accounting standards (Hung and Subramanyam, 2007). The large differences between two accounting standards and the high compliance levels likely increase the power of empirical tests using German samples.

German firms adopting IAS must reconcile one-year-before German GAAP financial statements to IAS. This provides a good setting for comparison because both German GAAP and IAS numbers are available for the same period. Hung and Subramanyam (2007) find several major differences between IAS and German GAAP using same period financial statements. First, IAS eliminates book-tax conformity. For example, depreciation expenses must be determined by commercial substance instead of tax laws. Elimination of book-tax conformity thus increases deferred tax and changes depreciation expenses on income statements and accumulated depreciation on balance sheets.⁹ Second, asset re-valuation and fair value reporting under IAS also increases the value of PP&E, inventory, receivables, financial instruments, and intangibles. Goodwill under IAS is capitalized and amortized unlike the direct offset against shareholders’ equity under German GAAP. Thus, IAS adoption increases net income and book value of equity. Third, both standards have similar revenue recognition rules and create comparable sales amounts. Fourth, German GAAP allows frequent use of loss provisions and earnings smoothing and thus results in less volatile net incomes.

Hung and Subramanyam (2007) compare the value relevance of the two accounting standards by regressing stock prices on book values and net incomes.¹⁰ Their study finds that

⁹ Other book-tax conformity rules such as no partial recognition of long-term contracts and unrealized foreign exchange gains or losses are also allowed under IAS.

¹⁰ Most studies on the value relevance of earnings assume that stock prices are a parsimonious benchmark that captures all public value relevant information, and test to what extent that accounting numbers can explain this

although differences in R-squared under the two standards are not significant, book values of equity have a higher coefficient under IAS and net incomes have a higher coefficient under German GAAP. The low correlation between IAS earnings and stock prices does not mean that IAS earnings are less efficient for contracting and monitoring, however. For example, large one-time charges tend to reduce the correlation between earnings and stock returns (Basu, 1997 and Hayn, 1995), but may motivate managers to withdraw investment from loss projects (Bushman et al., 2006), thus increasing the efficiency of monitoring by shareholders and debtholders.

Bartov et al. (2005) compare the value relevance of German GAAP, IAS, and U.S. GAAP for firms traded on German stock exchanges. Defining value relevance as the coefficient of the regression of return on earnings deflated by beginning market value, they find a higher coefficient on IAS and U.S. GAAP earnings than German GAAP earnings, but no difference between IAS and U.S. GAAP. The difference in coefficients is an inappropriate test for relative value relevance, however. Tests of relative value relevance such as between two exclusive accounting standards, should be tested by the difference in R-squared (Biddle et al., 1995). The coefficient on earnings should be interpreted as the capitalization of earnings. The difference in the coefficient could be caused either by the difference in the growth rate between German, IAS, and U.S. GAAP samples, level of conservatism, or by noise in measurement of earnings, which is the dependent variable.

The findings in Bartov et al. (2005) are inconsistent with those of Hung and Subramanyam (2007), in which German earnings have a higher coefficient in a regression of price on book value and earnings. This inconsistency could be caused by omission of the book

benchmark. One caveat of Hung and Subramanyam (2007) is that investors do not know the IFRS number until a year later when the firm adopts IFRS. To address this issue, the authors employ stock prices of the following year as the dependent variable and find a similar result.

value of equity in the regression model employed by Bartov et al. (2005). Book value could be an omitted variable that is correlated with earnings in the regression of return/price on earnings, thus biasing the coefficient on earnings. These inconsistent results could also arise from the use of two different samples; Whereas the sample in Hung and Subramanyam (2007) is limited to firms that changed accounting standards to IAS, with the availability of financial statements one year before the IAS adoption (when both IAS and German GAAP financial statements were available), the sample in Bartov et al. (2005) is larger and includes all firms traded at German stock exchanges from 1990 to 2000.

Harris and Muller (1999) examine whether reconciliation items explain stock prices and returns. Their sample consists of firms that reconcile IAS earnings and book values of equity to U.S. GAAP using Form-20F. Their results are mixed and depend on the regression model specification. They find that differences in earnings and book values of equity are insignificant between IAS and US-GAAP and much smaller than differences between U.S. GAAP and other accounting standards. They argue that this result is consistent with the results of Harris (1995), who finds that IAS measures are similar to U.S. GAAP. However, the sample in Harris and Muller (1999) biases against finding any significant differences between IAS and U.S. GAAP because IAS firms listed in the U.S. are more likely to choose accounting methods consistent with U.S. GAAP without violating IAS (Pownall and Schipper, 1999; Ashbaugh and Olsson, 2002).

In summary, research on the comparison among home country accounting standards in the EU, U.S. GAAP, and IAS provides mixed results. In addition to sample selection biases, there are methodological issues that may reduce test power in this type of research. We will discuss methodological issues further in Section 2.4.

2.2.2 Economic consequences of voluntary IAS adoption

Adopting IAS appears to reduce information asymmetry between managers and shareholders. Prior literature finds a reduction of information asymmetry as evidenced by lower earnings management, lower costs of capital, and lower forecast errors. We examine each of these economic consequences below.

Barth et al. (2006) suggest that accounting quality could be improved with elimination of alternative accounting methods that are less reflective of firms' performance and are used by managers to manage earnings. They compare earnings management for firms that voluntarily switch to IAS with firms that use domestic accounting standards. They find that after IAS adoption, firms have higher variance of changes in net income, a higher ratio of variance of changes in net income to variance of changes in cash flows, higher correlation between accruals and cash flows, lower frequency of small positive net income, and higher frequency of large losses. Barth et al. (2006) also investigate the value relevance of earnings by comparing the R-squared from two regressions: 1) price regressed on book value and earnings; and 2) earnings regressed on positive and negative returns. They find that R-squared increases after IAS adoption, providing evidence of greater value relevance for IAS earnings.

Van Tendeloo and Vanstraelen (2005) examine discretionary accruals of German firms adopting IAS. Contrary to Barth et al. (2006) they find that IAS firms have more discretionary accruals and a lower correlation between accruals and cash flows. However, their use of the Jones (1991) model in this setting may lead to measurement errors for discretionary accruals. The Jones model requires fixed assets for measurement of non-discretionary accruals. If fixed assets are revalued under IAS, non-discretionary accruals as a predicted value from revenue and fixed assets may contain errors. Intuitively, if out-of-sample revalued fixed assets are

plugged in to get non-discretionary accruals, this will reduce the amount of discretionary accruals, but the effect on the absolute amount of discretionary accruals is unknown. If future depreciation expense is based on the revalued amount, asset revaluation will also change future total accruals through a higher depreciation expense. However, the change in accruals attributable to asset revaluation may be value relevant. Aboody et al. (1999) find that upward revaluation of fixed assets by U.K. firms is positively related to future operating income and cash flow from operations. Therefore, the empirical tests of van Tendello and Vanstraelen (2005) should be interpreted with caution. Future research using the Jones model should adjust for asset revaluation.

Leuz and Verrecchia (2000) investigate the impact of changing accounting standards on the cost of capital by using bid-ask spreads and stock turnover ratios as proxies for the cost of capital. They suggest that opaque information environments reduce the demand for stocks and thus increase bid-ask spreads and lower stock turnover ratios. To attract potential investors, firms with low financial reporting quality have to issue stocks at a discount and hence at higher costs of capital (Diamond and Verrecchia, 1991). Bid-ask spreads and turnover ratios are therefore good proxies for the cost of capital. Leuz and Verrecchia (2000) contend that switching from German GAAP to IAS or U.S. GAAP represents a substantial increase in firms' commitment to greater disclosure. A commitment to disclosure is a decision by a firm to disclose *before* it knows the content of the information. This commitment should have a stronger economic consequence than voluntary disclosure, which is a decision to disclose *after* the firm knows the content of the information and can be reversed in the future. After controlling for self-selection bias, Leuz and Verrecchia find that firms voluntarily adopting IAS or U.S. GAAP have lower bid-ask spreads and higher stock turnover ratios, but the difference

between IAS and U.S. GAAP firms is not statistically significant. In contrast, Daske (2006) fails to find a decrease in the cost of equity, measured from several stock valuation models for German firms adopting IAS or U.S. GAAP.

Leuz (2003) examines bid-ask spreads and stock turnover ratios for U.S. GAAP and IAS firms in Germany's New Market, where U.S. GAAP and IAS are the only allowed financial reporting standards. Consistent with Leuz and Verrecchia (2000), he does not find any statistical differences in bid-ask spreads and turnover ratios across the two standards.

Ashbaugh and Pincus (2001) investigate whether analyst forecast errors decrease after a firm adopts IAS. They argue that IAS adoption reduces analysts' cost of information acquisition and improves forecast accuracy, even though earnings smoothing under other accounting standards makes forecasts easier. They find that forecast errors are positively related to the difference between a country's domestic accounting standards and IAS. After IAS adoption, forecast errors decrease and the number of news reports about sample firms increase. Cujipers and Buijink (2005) examine recent and early adopters of IAS or U.S. GAAP. They suggest that analysts need time to understand financial statements under the new standards. They find that recent adopters have higher forecast dispersion and lower analyst following than early adopters. These results suggest that realization of the benefit of switching to non-local GAAP may take time.

2.2.3 Events associated with voluntary IAS adoption

Firms that change accounting standards face large transaction costs associated with the change.¹¹ Several studies have investigated events that are likely reasons for firms to

¹¹ For example, de Jong et al. (2006) find that Dutch firms repurchase or alter the specification of preferred stocks to avoid large increases in debt ratios. IAS 32 requires that preferred shares which lack unconditional rights to

voluntarily incur these switching costs. Ashbaugh and Pincus (2001) find that the market value of firms adopting IAS increases after adoption, indicating that firms may adopt IAS in anticipation of stock issuance. Leuz (2003), however, contends that given a choice, firms that are interested in raising funds would prefer to have access to U.S. capital markets. In his examination of firms listed in Germany's New Market, where both U.S. GAAP and IAS are accepted, Leuz finds that firms with higher sales growth, which could indicate greater financing needs, are more likely to choose U.S. GAAP over IAS. He suggests that his result is consistent with a survey conducted by KPMG (2000), in which respondents had the perception that IAS has the same quality as U.S. GAAP but is less expensive to implement, while U.S. GAAP is a preferred choice for access to capital markets. For firms choosing U.S. GAAP, the benefit of financing must therefore outweigh the additional cost of adoption.

Ashbaugh and Davis-Friday (2002) find that for firms listed on the London Stock Exchange, adopting IAS or U.S. GAAP increases the likelihood of the firms becoming targets in mergers and acquisitions. One interpretation these results is that higher quality financial reporting allows outsiders to better identify takeover targets, leading to more acquisitions of firms using IAS or U.S. GAAP. An alternative, but not mutually exclusive, interpretation of these results is that firms that want to be acquired adopt more transparent accounting standards. Both interpretations suggest that a more transparent accounting environment facilitates merger and acquisition activity.

In summary, examination of events surrounding IAS adoption indicates that firms are making rational decisions on the choice of accounting standards by weighing costs and benefits.

avoid cash payouts must be reclassified as debt. Dutch firms with preferred stock have the requirement to pay preferred dividends when firms have profits, and thus under IAS32, their preferred stock will be reclassified as debt. To avoid increases in debt ratios, Dutch firms repurchase preferred stock by either issuing new common equity, using cash, or issuing new debt. De Jong et al. (2006) find that firms issuing common equity have high debt ratios even before repurchase, implying that due to its high cost, issuing equity is the last resort.

These types of events, such as later stock issuance, would thus be useful to include as a control for self-selection bias in analysis of many research topics associated with voluntary adoption of alternative accounting standards.

2.3 Mandatory adoption of IAS in the EU

On June 6, 2002, the Council of Ministers of the EU issued an official statement to require all listed companies¹² in the EU to use IAS in their consolidated or simple accounts for the fiscal year starting January 1st, 2005. Several studies examine the economic consequences of announcements and other events leading up or subsequent to these announcements. Comprix et al. (2003) identify 11 dates between 2000 and 2002 that signal the likelihood or the timing of IAS adoption in the EU. They find stock market reacted positively to news that increases the likelihood of IFRS adoption.

Armstrong et al. (2007) identify 16 events between 2002 and 2005 that may change the likelihood of the adoption of IFRS and the controversial fair value accounting on financial instruments, IAS 39. They find that stock market reaction is significantly positive (negative) in reaction to the events that increased (decreased) the likelihood of the adoption, and the reaction is stronger for firms that do not cross-list in the U.S. They conclude that equity investors perceive the benefit of the harmonization, but the benefits are expected to be smaller for firms cross-listing in the U.S., since U.S. GAAP is closer to IFRS than were most European domestic GAAPs.

In contrast to the 3-day short-window test in Armstrong et al. (2007), Pae et al. (2006) focus on the reduction of Tobin's Q associated with high agency costs in a long-window test

¹² EU firms that (1) are listed in a non-EU exchange and use U.S. GAAP or (2) have only publicly traded debt do not need to report under IFRS until 2007.

over the period when the EU moves to IFRS. They examine differences stemming from the concentration of control (e.g., family or dispersed ownership) and the impact of the divergence between cash flow rights and control rights for related entities. They find that from 1999 to 2003, Tobin's Q increased more for EU firms that: 1) were not listed in the U.S.; 2) were family-controlled; and 3) had low analyst following. Pae et al. (2006) attribute their findings to the announcement of IFRS adoption in the EU, which lead to expectations of reduced future agency costs.

The preceding papers examine the stock market's perception of the economic consequences of mandatory IFRS adoption. Because the earliest financial statements under the mandate are for fiscal years ending on December 31, 2005, we are unable to identify any empirical tests of actual accounting harmonization through IFRS adoption. Barth et al. (1999) analytically examine price informativeness after harmonization of accounting standards and find that changes in price informativeness can result from two effects. First, there is a direct informational effect, which is the change in measurement error¹³ under the new standards. A second, indirect, effect is the change in the amount of information from experts that is incorporated into stock prices. This change is determined by the cost and benefit of information acquisition. For example, if measurement error is decreased by new standards, both the benefit and cost of expertise acquisition are reduced. The net impact on price of information from experts will thus depend on the new, relative cost and benefit of expertise acquisition.

The direct and indirect effects may have opposite impacts on price informativeness. Although measurement error decreases, price informativeness may not increase. This is because the amount of information acquired by experts may decrease as a result of a relative

¹³ Barth et al. (1999) model measurement error as the difference between firm value as measured by GAAP and real firm value. This is a parsimonious summary of measurement errors in book value of equity and current and future earnings.

reduction in benefits of information acquisition. Barth et al. (1999) explore several conditions affecting the direction of the change in price informativeness.

Barth et al. (1999) also suggest that the cost for a country's investors to become accounting experts for another country is reduced when the GAAP for the two countries become closer to each other. This increase in expertise results in an increase in stock price informativeness in the second country, because there are more investors who are experts in interpreting that country's financial information. Once sufficient time has passed following mandatory adoption of IAS in the EU, this analytical result could be tested empirically. Research could investigate whether the price informativeness of the U.S. stock market changes after EU countries adopt IFRS, which is supposedly more similar to the U.S. GAAP than were the country-specific GAAPs.

Another way that adopting IFRS can improve earnings quality is through monitoring by investors, whose costs of acquiring expertise is reduced. Adopting IFRS in EU countries reduces the cost of comparing firms across borders. It also reduces the investor cost to evaluate the quality of financial reports between two firms. The ease of comparison puts pressure on managers to reduce earnings management. To date there is no direct empirical test of this argument.

2.4 Discussion

The above studies examine accounting quality from the perspective of stock market investors. Many other contracting parties use accounting standards in different ways, however. For example, debt contracts normally back out the amount of goodwill from the balance sheet because goodwill does not exist during bankruptcy (Holthausen and Watts, 2001). Because they

must respond to the financial reporting demands from many parties in the economy, standard setters focus on a wide range of contracting parties including banks, regulators, tax bureaus, and stockholders. Value relevance tests using stock prices as a benchmark impose a narrow focus on how information is reflected into stock market investors' expectation. With a variety of demands for financial reporting from parties other than stock market investors, value relevance tests may thus be less relevant to the goal of standard setters and the objectives of financial reporting (Holthausen and Watts, 2001). This could be one reason that results from the studies on change in accounting quality are largely mixed. Focusing on value relevance may underestimate the potential benefit of the change in accounting standards. Although a full review of the definition of the quality of financial reporting is outside of the scope of this paper, we adopt a more complete view of the usefulness of accounting to all relevant parties in the economy. This is in alignment with the TFV concept and is consistent with the FASB's statement that accounting must be useful to all types of contracting parties to facilitate investment and credit decisions. Future studies could review the effect of IFRS on other contracting parties such as banks and regulated industries. Without study of the effect of the adoption of IFRS on different contracting parties, we will not fully understand the economic consequences of the harmonization.

The mixed results regarding IFRS adoption could also be related to methodological issues. Foremost is sample selection bias. Prior studies have necessarily included only voluntary adopters. These firms may have innate characteristics that affect their adoption decision in addition to the hypothesized economic consequences. This self-selection problem may bias either for or against finding any results. On one hand, firms whose accounting methods in their national GAAP are closer to IFRS may be more willing to adopt IFRS due to

lower adoption cost. These firms may be closer to IFRS firms than the non-adoption firm (i.e. control sample) even before adoption. The change in economic consequences after IFRS adoption may not be significantly large relative to the difference between adopting and non-adopting firms before adoption, resulting in a low-power test. On the other hand, firms choosing IFRS may expect a large benefit, such as facilitation of stock issuance in an international stock exchange, which may not be representative of the benefit of adoption for all firms in the economy. Studies generally address this self-selection problem using a two-stage-least-squares regression. In the first stage, a firm's choice of accounting standards should be predicted by factors such as legal origin, cross-listing, leverage, ownership, operating cycle, international exposure, and industry affiliation. We expect that a more complete understanding of firms' choice of accounting method and disclosure should enhance research design (Ashbaugh, 2001).

The second methodological issue is an omitted variables problem. Pricing mechanisms and the information environment, including analyst following, media coverage, and disclosure of non-financial information, differ across firms and countries (Bushman et al., 2004). Thus, comparing financial statements between two accounting standards for the same firm such as in Hung and Subramanyam (2007) is likely a better setting, as it reduces the omitted variables problem. Value relevance studies using stock price as a parsimonious measure to capture all public information in the market may have problems because stock prices may incorporate information in a different manner across countries (Morck et al., 2000). Therefore, cross-country studies should consider using fixed effects models to control for observed and unobserved country-level factors that may affect the economic consequences of accounting standards (Sun, 2007).

Finally, regression models in some studies that compare different accounting regimes (e.g., before and after mandatory adoption of IFRS, or comparing U.S. GAAP with IFRS) are mis-specified and thus make it difficult to compare different accounting standards. For example, some studies do not consider the non-linear relation between price and net income (e.g., Basu 1997). If accounting standards differ in likelihood of large losses or conservatism,¹⁴ treating positive and negative earnings the same in a price regression will result in a different R-square across standards. Furthermore, Ashbaugh and Olsson (2002) find that violation of clean surplus makes regressions using the Ohlson (1995) model mis-specified. One example of such a violation is asset revaluation that credits shareholders' equity. Ashbaugh and Olsson (2002) find that more than half of the IAS sample firms trading in the Stock Exchange Automated Quotations (SEAQ) International Equity Market of London revalue their assets upward.

3. DETERMINANTS OF ACCOUNTING QUALITY AFTER IFRS ADOPTION

Figure 1 depicts a schematic framework describing determinants of accounting quality. It shows that accounting standards, legal and political systems, and incentives of financial reporting all affect accounting quality.¹⁵ Although conversion to IFRS is likely to affect financial reporting, it is only one of the determinants of overall accounting quality. Because other determinants will continue to differ across countries, it is possible that accounting quality will continue to differ across countries following IFRS adoption.

¹⁴ Conservatism may be caused by factors other than accounting standards. Bushman and Piotroski (2006) find that the judicial system, debt contracts, politics, and ownership structure are important determinants of a country's overall accounting conservatism.

¹⁵ These factors may interact with each other to affect earnings quality. Burgstahler et al. (2007) examine the relation between earnings management and the interaction among ownership structure, capital market structure and development, tax system, accounting standards, and investor protection. Ding et al. (2007) examine how a country's legal system, economic development, the importance of stock markets, and ownership concentration shape the country's accounting standards, which in turn affect the country's quality of financial reporting. A detailed discussion of these interaction effects is beyond the scope of this paper.

[Insert Figure 1]

The quality of accounting is determined by the quality of the accounting standards chosen (arrow 1 in Figure 1). If the IASB continues to improve the quality of IFRS, we would expect financial reporting under IFRS to become increasingly value relevant and reliable. Comprix et al. (2003) find that positive market reaction to the news on the possibility of IFRS adoption in the EU is related to the number of new disclosures and accrual measures under IFRS relative to respective national standards. Burgstahler et al. (2007) also find that Comprix's index of new disclosures and accrual measures is significantly related to less earnings management in the EU.

However, opponents argue that a single set of standards may not be suitable for all settings and thus may not uniformly improve value relevance and reliability, especially given differences among countries. For example, Ball (2006) points out that pension accounting may be subject to earnings management especially in countries that have less mature pension systems. Managers can use different assumptions to manipulate their financial statements.¹⁶ However, using a universal accounting method makes it less costly for investors to identify earnings management. Under a common accounting method, investors can easily compare different assumptions of pension accounting between firms and countries to evaluate the quality of financial reporting, which will put pressure on management to report truthfully. Nevertheless, we think that using a single set of accounting standards may not improve accounting quality uniformly for each firm and country because of additional factors such as legal and political systems and incentives of financial reporting that may affect earnings quality.

¹⁶ In a related study in the U.S., Johnston (2006) finds that managers who recognize stock option expenses manage the expenses downward more than managers who only disclose such expenses.

Legal and political systems influence accounting quality in several ways. First, they affect accounting quality indirectly through accounting standards (arrow 2 in Figure 1). Accounting standard setting is a political process, in which users of accounting such as tax authorities, banks, shareholders, managers, and labor unions have significant influence on standard setters. In an effort to reduce the political influence on standard setting, in 2001, the IASC was replaced by the IASB. The IASB is responsible only to a non-for-profit organization, the IASC Foundation. This change mirrors the model in the U.S., where the Accounting Principles Board (APB) of the American Institute of Certified Public Accountants (AICPA) was replaced by the FASB in 1972 because of its lack of independence.¹⁷ Even with increased independence, the IASB continues to be under enormous pressure from global politics. This is perhaps best illustrated by the fair value accounting standards (IAS 39). Armstrong et al. (2007) and Whittington (2005) document several instances where governments of some EU countries strongly voiced their concerns about IAS 39. The most active opponents were French President Chirac and the banking industries. Under IAS 39, banks must report fair values of their financial instruments¹⁸ and will thus experience increased volatility in their balance sheets and earnings. This may affect investor and regulator views of financial institutions' stability. During the development of IAS 39, President Chirac took sides with French banks and expressed his concerns about the standard. As a result, The European committee endorsed IAS

¹⁷ Members of the APB are from public accounting firms, industry and academia, and must be CPAs. The APB is also a committee of the AICPA. Therefore, the standards issued by the APB, called APB opinions, were subject to various influences by its members' affiliation and the AICPA. In contrast, all members of the FASB must sever their private ties with industry and academia.

¹⁸ For example, held-for-trading, available-for-sale, and held-to-maturity securities, and derivatives.

39 with a carve-out to allow hedging accounting for banks' core deposits, which is forbidden in both U.S. GAAP and IAS 39 (Armstrong and Jagolinzer, 2005).¹⁹

Legal systems also influence accounting standards. Common law was developed in England during the eleventh and twelfth centuries, following consolidation of powers under the king and subsequent development of a judicial system to centralize control over courts. Decisions made by judges concerning common pleas brought before them formed the legal precedents that became known as common law. The result of this system was that royal influence on the legal system was diminished.

The separation between the executive and the judicial system, along with the notion of developing law based upon issues from the common people, are reflected in the approach to standard setting in common law countries. The right to set accounting standards is derived from information demands from investors, not from demands of the government. Accounting standards in common law countries are mostly set by private organizations such as FASB in the U.S. The purpose of these standard setters is to satisfy investor needs for information.

Code law (e.g., French and German law), on the other hand, was developed to allow governments to control setting and interpretation of laws. Accounting standards in these countries are a part of commercial law instituted by courts. Accounting standards in these countries are therefore primarily influenced by governmental priorities. In contrast to the role of accounting in providing information in common law countries, political influences in accounting standard setting in code law countries make accounting a measure to divide profits among governments as taxes, shareholders as dividends, banks as interests, and labor unions as salaries and wages (Ball et al., 2000). For example, under German GAAP, supervisory boards

¹⁹ There were originally two carve-outs for IAS 39. One is the fair value treatment of options, and the other is the hedging accounting on core deposits. IASB revised the option fair value section of IAS 39 on June 16, 2005, which was later endorsed by the EU, thus leaving only one carve-out.

in Germany first determine dividends and then report profits because there is an excess tax on undistributed profits and German courts believe it is imprudent to report high profits without justification of low dividends (Ball, 2001; Leuz and Wüstemann, 2003). Ball et al. (2000) find that earnings in code law countries reflect economic profits in a less timely manner than dividends.

Legal and political systems also affect accounting quality directly, through enforcement of accounting standards and litigation against managers and auditors (arrow 3 in Figure 1). La Porta et al. (1998) find that legal enforcement is higher in common law countries. Using their enforcement index, the international accounting literature has found that accounting quality is higher in countries with a common law origin and high protection of shareholder rights.²⁰ Hung (2001) finds that accrual accounting is more value relevant relative to cash accounting in countries with strong shareholder protection, but accrual accounting reduces the value relevance of financial statements in countries with weak shareholder protection. Francis and Wang (2007) find that earnings quality is higher for firms audited by Big 5 auditors compared to non-Big 5 auditors only in countries with strong investor protection.

This enforcement role of legal systems is especially important when considering the accounting quality following the adoption of IFRS. The IASB issues IFRS, but does not have enforcement power. Enforcement power thus resides in the security exchanges and courts where firms are listed (Schipper, 2005). Legal systems vary significantly within the EU, and consequently we would expect accounting quality to vary across borders after the IFRS adoption. In addition, IFRS are principles-based, which means that auditors and accountants need to follow general principles rather than detailed standards and adapt these principles to specific situations (Ball, 2006). The legal system is therefore very important in determining

²⁰ For example, Ali and Hwang (2000), Ball et al. (2000), and Leuz et al. (2003).

accounting quality under situations that are not prescribed under IFRS and need an interpretation of the principles. In countries with strong shareholder protection, we expect interpretation will lean toward a fair presentation of information to shareholders. In countries with strong creditor protection, we expect interpretation to satisfy contracting demands of banks, such as conservative approaches to record assets but aggressive approaches to record liabilities. Consistent with this view, Ball et al. (2006) find that conservatism of a country is determined by the country's debt market size.

Political systems also directly affect accounting quality. Political rent-seeking is prevalent in countries with corrupt political systems. Firm managers and owners have incentives to bribe politicians to seek favorite treatment such as purchase orders from governments, lower tax payments, and monopoly status. They therefore have incentives to omit such bribes from financial statements to avoid political and social scrutiny. Moreover, firms in countries with a higher possibility of government interference are likely unwilling to show high profits in an effort to avoid government expropriation. Bushman and Piotroski (2006) find that firms in code law countries with high risk of government expropriation expedite bad news recognition.

Studies on cross-listing of firms provide another interesting insight into the effect of legal and political systems on accounting quality. Investors price protect themselves by charging higher costs of capital or restrain provision of financing for firms in countries with low legal protection of investors. Firms in need of financing may therefore attempt to assure investors by listing in exchanges with better rule of law, where violation of financial reporting regulation will result in sanction. Cross-listing firms thus have better accounting quality than their local counter-parts. Nevertheless, Lang et al. (2006) find that earnings quality for cross-

listed firms in the U.S. is lower than their U.S. matched samples. They further find that the difference in earnings quality is associated with the legal system in the firm's home country. Cross-listed firms from countries with low investor protection show more signs of earnings management, suggesting that enforcement by the SEC to foreign firms may be less stringent than for U.S. firms. In addition, Leuz (2006) provides evidence that the low earnings quality of cross-listed firms compared to that of U.S. firms may be caused by high ownership concentration in cross-listed firms.²¹

Legal and political systems also affect accounting quality indirectly through the incentives associated with financial reporting.²² Financial reporting incentives stem from both the supply and demand for information. Ball (2001) argues that “all parties contracting or contemplating contracting with the firm demand information about the firm's ability to meet its contractual obligations. Firms therefore agree to incur the costs of supplying information, and in return they receive better terms of trade from factor owners and customer” (p. 131). Financial reporting is therefore an equilibrium outcome from the cost of disclosure, which includes the cost of preparing financial reports and leaking proprietary information, and from the benefit of meeting contracting parties' demand for information.²³

The first financial reporting incentive that likely affects accounting quality is the development of financial markets (arrow 4 in Figure 1). Demand for information results from market participants' need to reduce information asymmetry. Adverse selection happens when

²¹ We explore incentives associated with ownership concentration below in our discussion of arrow 8 in Figure 1, Accounting Quality and Ownership.

²² These incentives in Figure 1 may also affect legal and political systems. For example, the Sarbanes and Oxley Act in the U.S. derived from investors' need for a more transparent financial reporting system after several accounting scandals in 2001. Leuz (2001) also argues that the reason that Germany was moving toward a common-law system in the 1990s is the need for foreign financing after the reunification in 1989. A detailed discussion on this inverse relation is outside the scope of this paper.

²³ Consistent with Burgstahler et al. (2007), this argument is based on the assumption that corporate insiders have private information on firm performance and have considerable discretion in using private information in financial reporting.

market participants cannot differentiate between good firms and bad firms. Without such differentiation, market participants would “price protect” themselves by increasing costs of financing to firms, and thus only bad firms would be willing to finance at these high costs. Consequently, financial markets would mostly consist of bad firms. Spence (1973) finds that credible signaling can reduce this adverse selection problem. If signaling is more costly to low-quality firms, high-quality firms will signal to the market at lower costs and receive lower costs of financing. Financial reporting is a primary mechanism used to signal to the market. Francis et al. (2005) find that firms in need of external financing voluntarily disclose more information than a country’s minimum requirement and have lower costs of capital. Similarly, Huddart et al. (1999) find that even though liquidity traders are risk-neutral, they prefer to trade on high disclosure exchanges, which in turn motivates firms to raise funds on a high disclosure stock exchange to exploit the liquidity and lower costs of capital at the exchange. Burgstahler et al. (2007) find that public firms in countries with large and highly developed equity markets engage less earnings management than private firms in these countries. They attribute this finding to either 1) stock markets providing incentives for firms to make earnings more informative to reduce costs of capital; or 2) stock markets screening out firms with less informative earnings. Thus, the demand for information from market participants provides incentives for firm managers to improve the quality of financial reporting.

Legal and political systems affect accounting quality indirectly through financial market development (arrow 5 in Figure 1). Strong investor protection and lower levels of government expropriation guarantee investors a return on their investments and increases the number of investors who are willing to provide financing. La Porta et al. (1998) find that the character of legal rules and the quality of law enforcement determine the size of capital markets. French law

countries have the weakest investor protection and smallest equity and debt markets.²⁴ La Porta et al. (2006) examine the mechanism through which securities laws influence stock market development. While they do not find public enforcement mechanisms, such as independent regulators and criminal sanctions benefit stock markets, they find that laws mandating disclosure and facilitating private enforcement of recovery of investors' losses benefit stock markets. Countries with highly concentrated political and religious power are also linked to less developed financial markets. Stulz and Williamson (2003) find that a country's major religion is related to the size of its stock market. Leuz and Oberholzer-Gee (2006) find that firms with political connections are less likely to go public. Because the demand for accounting information is dependent on the nature of financial markets, and the legal and political systems impact the markets, characteristics of the legal and political systems will impact the quality of earnings, a common GAAP notwithstanding.

Firms with different financing needs have different incentives for financial reporting (arrow 6 in Figure 1). Shareholders and creditors use different methods to reduce information asymmetry. When investors invest directly through a stock market, they rely on a company's financial reports and expend resources to acquire information. If, however, investors decide to lend through a bank, they deposit money in the bank and delegate the role of monitoring borrowing firms to the bank. Sun (2006) argues that banks demand less financial reporting than do shareholders because banks have private access to firm managers. Schumpeter (1939) describes the private communication channel as follows: "the banker must not only know what the transaction is which he is asked to finance and how it is likely to turn out, but he must also know the customer, his business, and even his private habits, and get, by frequently 'talking

²⁴ Stulz and Williamson (2003) find that not only legal systems, but also culture and religion are associated with investor protection and the size of financial markets.

things over with him,' a clear picture of the situation" (p. 116 as quoted on p. 383 of Diamond, 1984). Jacobson and Aaker (1993) argue that the relationship between firms and investors in Japan is closer to that in the U.S. because Japanese banks are the biggest investor in Japan and have close ties with firms. The need for financial reporting to reduce information asymmetry is thus lower in Japan. Sun (2006) finds that the usefulness of financial reporting in improving capital investment decisions is decreasing with the level of debt financing. Similarly, Ali and Hwang (2000) find that price leads earnings more in bank-based economies than in market-based economies. Due to low reporting incentives, we would expect lower accounting quality in firms dependent on bank financing.

Legal and political systems also affect accounting quality indirectly through capital structures (arrow 7 in Figure 1). In countries with high creditor protection, firms are more easily able to get bank financing at lower cost. In countries with high possibility of government expropriation and corruption, contracting is mostly completed privately to avoid social and political scrutiny, and financial reporting is a less frequently used method to reduce information asymmetry. Earnings quality is thus lower in countries with high dominance of bank financing and political risks.

Firms with concentrated ownership and high divergence between cash flow rights and control rights have low incentives for financial reporting (arrow 8 in Figure 1). First, controlling stakeholders are active in management, thus reducing the demand for financial reporting. Ball and Shivakumar (2005) and Burgstahler et al. (2007) examine the earnings quality of private firms in Europe, which are normally controlled by few shareholders and lenders. They find that earnings quality of private firms is lower than that of public firms, although both groups are subject to the same accounting, tax, and auditing standards. They

attribute the findings to low demand for high quality financial reporting because stakeholders in private firms have easy access to firms' information. The low earnings quality of private firms also avoids leakage of proprietary information to the public and is thus an equilibrium outcome. Second, controlling shareholders have incentives to hide their exploitation of the wealth of minority shareholders. Pyramidal and cross shareholding gives an ultimate owner dominant control over a firm without a large investment in ownership. This divergence between control rights and cash flow rights creates an agency problem between controlling and minority shareholders and increases the incentives of controlling shareholders to hide the problem in financial reporting (Fan and Wong, 2002; Haw et al., 2004). Third, controlling shareholders have long-term interests in firms and will thus invest with a long-term purpose. These long-term investments may incur huge losses at the beginning but may yield large profits in the future. High volatility of earnings may not be good for these firms if they are in need of bank financing.²⁵ Controlling shareholders therefore have incentives to smooth earnings. Lastly, foreign investors may demand more information than domestic investors due to their lack of institutional knowledge. Kinnunen et al. (2000) test this argument in Finland, where, between 1984 and 1992, foreign ownership and domestic ownership were independently traded. They find that earnings from both the local accounting standards and IAS are value relevant for foreign ownership shares, but only earnings from local accounting standards are value relevant for domestic shares.

²⁵ Firms with concentrated controls have higher debt levels than firms that are widely-held. One reason may be the close relationship of controlling shareholders with banks. Controlling shareholders also have incentives to borrow rather than issuing equity to avoid diluting their control of the company. However, La Porta et al. (1998) do not find a negative relation between creditor protection and ownership. An opposing argument that may cause this is that banks have more monitoring power in countries with high creditor protection and thus small investors are more likely to purchase stocks to enjoy the free ride available from bank monitoring, which in turn reduces ownership concentration.

Legal and political systems may also affect earnings quality indirectly through ownership structures (arrow 9 in Figure 1). La Porta et al. (1998) find that countries with stronger investor protection have a lower concentration of ownership. They argue that ownership concentration is a substitute for legal protection because: 1) shareholders need more control to avoid being expropriated by managers; and 2) small investors are not interested in purchasing stocks due to less protection. Political systems also affect ownership structure. A government with prevalence of political rent-seeking may cause concentration of ownership. Fan and Wong (2002) and Morck (1996) provide two arguments as to why closely-held firms are better at political rent-seeking. First, concentrated control and decision-making may appeal to politicians, who want to maintain a clean reputation, since secret lobbying and bribes are less likely to leak out from firms with fewer individuals engaging in lobbying decisions and activities. Second, a controlling owner has a more secure position than a hired manager in a widely-held firm. This security gives the company more credibility in trading favors with politicians. Legal and political systems thus affect ownership structure, which in turn affects earnings quality.

An important aspect of the legal system is the tax system. There are several ways that a tax system can affect earnings quality (arrow 10 in Figure 1). First, earnings are less likely to reflect underlying business in a country with a close linkage between financial accounting income and taxable income (Guenther and Young, 2000). A close linkage between accounting standards and tax laws reduces the quality of accounting standards, since they serve political purposes such as collection of taxes for the government. Second, a high tax rate will increase the incentive to reduce taxable income. Taxable income and accounting income are linked even in countries with low book-tax conformity, such as the U.S. Therefore, a higher tax rate will

increase the incentive to hide profits in financial reporting. Burgstahler et al. (2007) find that European firms in high book-tax-alignment and high tax-rate countries manage earnings more. Third, a country's tax authority has statutory power in verifying a company's profits. Tax authorities do not have the same free-rider problem as shareholders because there is no beneficiary of tax collection other than the government. Haw et al. (2004) find that a country's tax compliance is associated with lower earnings management, and has a greater effect than judicial system efficiency in curbing earnings management.

Finally, legal and political systems affect accounting quality through tax systems (arrow 11 in Figure 1). Unlike the role of financial reporting in code law countries as a measure of tax payment to the government, common law countries' financial reporting is used to reduce information asymmetry. Hung (2001) and Guenther and Young (2000) find that common law countries have lower book-tax conformity. Moreover, tax rates are determined via political processes. Ministries of Finance, the authority of tax collection, are appointed in a political process. Further, a country's level of corruption directly affects the effectiveness of tax collection process. Therefore, legal and political systems may influence tax systems, which in turn, affect earnings quality.

4. CONCLUSION

This paper reviews the research on the consequences of changing accounting standards and discusses determinants accounting quality following IFRS adoption. We find that the international accounting literature has generally found a positive impact from voluntary adoption of better accounting principles, IFRS included. While extant literature has found a positive impact of IFRS adoption on accounting quality, we argue that one cannot simply

generalize results based upon historically voluntary IFRS adoptions to the current EU setting, where adoption is mandatory. We argue that accounting quality after IFRS adoption hinges on three factors: 1) the quality of the standards; 2) a country's legal and political system; and 3) financial reporting incentives. We review accounting, finance, and economics literature on these three factors and find that in addition to the direct effect of these three factors on accounting quality, a country's legal and political system also indirectly affects accounting quality. We summarize four financial reporting incentives: financial market development, capital structure, ownership structure, and tax system, and discuss how a country's legal and political system affects each of them.

Schipper (2005) argues that the adoption of IFRS in EU provides a more powerful setting to test the determinants and economic consequences of accounting quality because accounting standards across EU countries are now the same. This paper discusses some methodological issues in studies of voluntary adoption of IFRS. For example, discretionary accruals in these studies are not comparable across different accounting standards due to the difference in fixed assets valuation when estimating the Jones' (1991) model. Additional controls will also be necessary to provide more powerful tests for firms in EU countries with similar accounting standards, but with different institutional characteristics.

Analysis of the determinants of accounting quality has important policy implications. Since all EU countries will have consistent financial reporting rules, future improvements in accounting quality will be largely dependent on changes in a country's legal and political system and financial reporting incentives. Changing a country's overall institutional infrastructure is difficult, so addressing financial reporting incentives will perhaps be the least costly means of achieving any further improvements in accounting quality.

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Figure 1: Determinants of Accounting Quality

