Why do countries adopt International Financial Reporting Standards?

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Abstract

In a sample of 102 non-European Union countries, we study variations in the decision to adopt International Financial Reporting Standards (IFRS). There is evidence that more powerful countries are less likely to adopt IFRS, consistent with more powerful countries being less willing to surrender standard-setting authority to an international body. There is also evidence that the likelihood of IFRS adoption at first increases and then decreases in the quality of countries' domestic governance institutions, consistent with IFRS being adopted when governments are capable of timely decision making and when the opportunity and switching cost of domestic standards are relatively low. We do not find evidence that levels of and expected changes in foreign trade and investment flows in a country affect its adoption decision: thus, we cannot confirm that IFRS lowers information costs in more globalized economies. Consistent with the presence of network effects in IFRS adoption, we find that a country is more likely to adopt IFRS if its trade partners or countries within in its geographical region are IFRS adopters.

1. Introduction

The International Accounting Standards Board (IASB) was established in 2001 to develop International Financial Reporting Standards (IFRS). A year later, European Union (EU) member states committed to requiring IFRS for all listed corporations in their jurisdictions effective year 2005 (EC, 2002). The first IFRS was issued in 2003, by which time at least 19 countries required compliance with the international standards. Since then, nearly 70 countries (including EU countries) have mandated IFRS for all listed companies. Further, about 23 countries have either mandated IFRS for some listed companies or allow listed companies to voluntarily adopt IFRS. However, as of 2007, at least 40 countries continue to require domestically developed accounting standards over IFRS, and this list includes some large economies like Brazil, Canada, China, Japan, India, and the US.[1] We investigate why there is heterogeneity in countries' decisions to adopt IFRS; in other words, why some countries adopt IFRS while others do not. Understanding countries' adoption decisions can provide insights into the benefits and costs of IFRS adoption.

We focus our analysis on a sample of 102 non-EU countries and examine IFRS adoption over the period 2002 through 2007.[2] We exclude the EU member states from our tests because their decision to adopt IFRS was closely tied to the establishment of the IASB itself (EC, 2000). Moreover, the EU member states committed jointly to adopting IFRS (EC, 2002) making an analysis of their individual adoption decisions infeasible.

We use the economic theory of networks to develop our hypotheses: adopting a set of standards like IFRS can be more appealing to a country if other countries have adopted it as well (in this sense, IFRS can be a product with "network effects"). In other words, countries do not adopt IFRS all at once, and the observed inter-temporal increase in IFRS adoption across countries can be due to the growing value of the IFRS "network." We focus our analysis of network effects at the regional and trade levels. Accordingly, we test whether the likelihood of

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[1] Several of these countries have committed to adopting ("converging with") IFRS at some future date. For the purpose of our analyses, we do not consider a country to have adopted IFRS until listed companies in its jurisdiction are in fact required to report under IFRS. For example, in 2004, Albania committed itself to requiring IFRS effective January 1, 2006; the adoption date was subsequently moved to January 1, 2008.

[2] We begin our analysis in 2002 because this was the first full year of the IASB's existence. In Section 2, we discuss some institutional reasons for excluding the international accounting standards that preceded the IASB. We restrict our sample to year 2007 because the macroeconomic data required for our analyses were not available for years beyond 2007 at the initiation of this study.

1

IFRS adoption for a given country in a given year increases with the number of IFRS adopters in its geographical region and with IFRS adoption among its trade partners.

Economic network theory predicts that in addition to network benefits (synchronization value), a product with network effects can be adopted due to its direct benefits (autarky value) (Katz and Shapiro, 1985; Liebowitz and Margolis, 1994). In the case of the IFRS adoption decision by a country, we argue the direct benefits are represented by both the net economic and net political value of IFRS over local standards.

The net economic value of IFRS is intended to capture direct pecuniary benefits as they are usually conceived in economic models of networks. Proponents of IFRS argue that the standards reduce information costs to an economy, particularly as capital flows and trade become more globalized: it is cheaper for capital market participants to become familiar with one set of global standards than with several local standards (Leuz, 2003; Barth, 2008). Accordingly, we test whether economies with high levels of or expected increases in foreign investment and trade are more likely to adopt IFRS.[3] The benefits from adopting IFRS, however, are likely to diminish with the relative quality of local governance institutions, including the quality of local GAAP (high quality institutions present higher opportunity and switching costs to adopting IFRS). Thus, we also examine whether the likelihood of IFRS adoption decreases with the quality of domestic governance institutions.

The net political value of IFRS is the benefit arising from the potential political nature of international accounting standard setting: if IFRS standard setting can be influenced by political lobbying, more powerful countries are more likely to be able to shape IFRS.[4] The prevailing position of the EU in IFRS standard setting, however, can override this argument. If countries expect the EU to have a dominant role in IASB affairs (Brackney and Witmer, 2005), they are likely to have to cede some authority over standard setting to EU interests. Ceding authority over local standards is, in turn, likely to be less palatable to more powerful countries, which leads to the prediction that more powerful countries are less likely to embrace IFRS. In addition to standard-setting power, cultural sensitivities can also affect the net political value of IFRS to a country. If the IASB is perceived as a European institution, countries that are culturally more

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[3] Adopting IFRS to lower information costs is conceptually distinct from adopting IFRS due to its "network benefits." Please see Section 2 for details.
[4] Powerful countries can influence IFRS by directly lobbying the IASB; alternately, their influence can be more indirect if the IASB implicitly caters to their interests when developing IFRS.

distant from Europe are likely to be less accepting of IFRS (Ding *et al*., 2005; Ciesielski, 2007; and Norris, 2007). Thus, we also test whether cultural differences can explain cross-sectional variation in IFRS adoption.

In addition to the macro-level economic and political factors discussed earlier, it is likely that a country's decision to adopt IFRS is influenced by its internal politics: e.g., the actions of special-interest lobbyists and ideology-driven regulators. It is difficult to specify the nature of such within-country politics in a large sample of countries, let alone measure it with a reasonable degree of accuracy: only in more transparent societies like the United States is such an exercise possible. To the extent that the effects of internal politics on IFRS adoption are systematically associated to those of the macro-level determinants we study, the associations documented in our empirical tests can have alternate interpretations. However, we are not aware of any theory that predicts such a systematic association.

On network effects, the data reveal evidence of regional trends in IFRS adoption, i.e., a country is more likely to implement IFRS if other countries in its geographical region are IFRS adopters. We also find evidence that a country is more likely to adopt IFRS if its trade partners are IFRS adopters. The result is significant for at least two reasons: (1) it suggests countries internalize the network effects of IFRS in their adoption decisions; and (2) it suggests that as the network benefits from IFRS get large, countries may adopt the international standards even if the direct benefits from such standards are inferior to those from locally developed standards.

On economic determinants of IFRS adoption, we find no evidence that the level of and expected changes in foreign investment and trade affect the likelihood of adoption. Thus, we cannot confirm that IFRS lowers information costs in more globalized economies. We do find, however, evidence that the likelihood of IFRS adoption at first increases and then decreases in the quality of countries' domestic governance institutions. That quality is measured using a factor that extracts common variation from a set of proxies measuring the process and output of countries' governance systems (including, an economic democracy index and citizen wealth). The result on governance quality can be interpreted as consistent with both the most poorly governed countries being less responsive to international standards, and all other countries conditioning their IFRS adoption decisions on the opportunity and switching costs of domestic governance standards.

There is also evidence that political considerations affect IFRS adoption decisions. We find that more powerful countries are less likely to adopt IFRS, consistent with more powerful countries being less willing to surrender standard-setting authority to the IASB. Country-level power is measured as the first principal component of a set of proxies for countries' abilities to influence international decision making (including their size and popularity within the United Nations). In contrast to the results on power, we do not find evidence of countries' cultural closeness to the EU influencing their IFRS adoption decisions, where more Christian countries and countries with long-settled colonial relations with EU powers are considered culturally closer to the region.

Academic theories yield mixed predictions on whether the adoption of IFRS is beneficial to a country. Some scholars have argued that international harmonization in accounting can improve capital-market efficiency: a common set of international accounting standards can reduce the information processing and auditing costs to market participants (Barth, 2007; 2008). Other academics argue that accounting standards evolve in the context of domestic cultural, legal, and other institutional features (including auditing): international harmonization in accounting, if it is not accompanied by changes to related capital market institutions, can be costly (Ball *et al*., 2000; Ball *et al*., 2003; Ball, 2006).[5] Our analysis of the cross-sectional variation in country-level IFRS adoption decisions suggests there is evidence consistent with both sets of arguments. The evidence of a higher IFRS adoption rate among countries with moderate governance standards is consistent with IFRS being adopted for reasons that can be beneficial to a country. At the same time, the evidence that the best governed and most powerful non-EU countries were, as of 2007, less likely to adopt IFRS, suggests that several countries still perceived IFRS as being costly.

The existing empirical literature on IFRS has focused largely on the determinants and consequences of IFRS adoption at the firm level.[6] The firm-level studies are conditional on countries' decisions to allow or mandate IFRS, suggesting that studies of IFRS adoption at the country-level can complement firm-level studies. A study by Hope *et al.* (2006) provides some preliminary evidence on country-level IFRS adoptions through 2005 in a sample of 38 countries (including 14 EU countries). Their evidence suggests countries with weaker investor protection

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[5] Leuz and Wysocki (2008) provide a comprehensive survey of the literature on accounting harmonization.
[6] Examples include Armstrong *et al.* (2008), Barth *et al*. (2008), Christensen *et al*. (2008), and Daske *et al*. (2008).

4

and more easily accessible financial markets are more likely to adopt IFRS. We expand the country-level analysis to a more comprehensive sample of 102 non-EU countries, and develop and test a number of new factors that can affect IFRS adoption, including political power, opportunity and switching costs, and network effects. The inclusion of network effects is particularly useful in that it augments hypotheses on cross-sectional variation in IFRS adoption with an explanation for the observed inter-temporal increase in IFRS adoption across countries.

We caution against a broad interpretation of the results in this paper in the context of any ongoing policy debate on IFRS adoption. There are two reasons for this caveat and they are outlined more thoroughly in the conclusion. In brief, the caveat is associated with: (1) concerns over "modifications" to IFRS at the country level (countries claim to have adopted IFRS, but in practice adopt the standards with restrictions); and (2) the likely increasing importance of network benefits (over direct economic and political factors) in determining IFRS adoption as more countries adopt the international standards.

The rest of this paper is organized as follows. Starting from the economic theory of networks, section two develops hypotheses on why countries choose to adopt IFRS. Section three describes our data and develops proxies for the IFRS-adoption determinants discussed in section two. Section four provides descriptive statistics and univariate evidence on the determinants of IFRS adoption. Section five develops multivariate regression-based models for country-level IFRS adoption and presents results of the multivariate tests. Section six concludes.

2. Theory and hypothesis development

2.1. The economic theory of networks

The decision to adopt IFRS can be analyzed as a decision to adopt a product with network effects. To see this, note that a standard like IFRS is likely to be more appealing to a country if other countries choose to adopt it as well. This suggests we can use insights from the economic theory of networks to develop hypotheses on why countries choose to adopt IFRS.

Network theory suggests that there are generally two factors to consider in adopting network-dependent products: the intrinsic value of the product and the value of the product's network (Katz and Shapiro, 1985). To illustrate, consider a decision to buy a Mac computer (Liebowitz and Margolis, 1998). The value to a user from buying a Mac can be analyzed as:

1. The direct value from using the Mac: this can include the computer's processing speed, memory, graphical card, user friendliness, etc.
2. The value from other people using Macs: this can include value derived from being able to easily share files, obtaining technical service, using a product that is popular with one's peers, etc.

The direct value is sometimes referred to in the literature as the autarky value of the product, while the network-related value is called the synchronization value (Liebowitz and Margolis, 1996). The existence of the synchronization value of a product suggests that the product can be adopted even if its autarky value is inferior to that of a substitute product (some frustrated Windows users can testify to this). The synchronization value of a product is also known as the value from network effects.

The economics literature on networks also makes the distinction between direct and indirect network effects (Katz and Shapiro, 1985). Direct network effects are what we will refer to as synchronization value in this paper. It refers to network effects that are endogenous to the product. In the case of Mac computers, an example of direct network effects is the value derived from being able to easily share files as the number of Mac users grows. Indirect network effects refer to the value derived from having lower prices on complementary goods as the number of adopters of a network-dependent product increases. An example of indirect network effects in the case of buying a Mac is the value derived from having lower prices on application software for Macs as the number of Mac users increases. Liebowitz and Margolis (1994) argue from earlier theoretical work (e.g., Knight, 1924) that indirect network effects are truly pecuniary in nature and so should not be internalized in the consideration of synchronization value.

A final distinction to make in discussing the economic theory of networks is that between network effects and network externalities (Liebowitz and Margolis, 1994). Network externalities arise when direct network effects are not internalized in the decision to buy a network-dependent product. In the Mac example, this would result if a user purchased a Mac computer solely for its autarky value, only to later discover the added benefits from having easy file-sharing capabilities due to the high rate of Mac adoption among her friends.

2.2. Applying the economic theory of networks to country-level IFRS adoption

If IFRS is considered a network-dependent product, then a country's decision to adopt IFRS can be viewed through the lens of autarky and synchronization values. The autarky value of IFRS is the direct value to the adopting country from using the IASB-developed accounting standards. The synchronization value is the value derived from adopting a body of accounting standards that is widely used by other countries.

Given the network framework, a country's decision to adopt IFRS can be expressed as follows.

Adopt IFRS if and only if:

Autarky Value of IFRS + Synchronization Value of IFRS

$$> \text{Value of Local GAAP} \qquad \text{… (1)}$$

In our analysis of the autarky value of IFRS, we classify the potential direct benefit as arising from economic and political factors. The economic determinants of autarky value are intended to capture direct pecuniary benefits as they are usually conceived in economic models of networks. The political determinants are included to test whether adopters consider the benefits arising from the potentially political nature of international accounting standard setting.

Just as the autarky value of IFRS can be classified into economic and political benefits, the value of local GAAP can be so classified. The economic value of local GAAP refers explicitly to the ability of extant accounting standards to facilitate the efficient allocation of capital in an economy. The political value of local GAAP refers to political benefits from having local authority over standard setting. Grouping together the economic (political) benefits of IFRS with the economic (political) benefits of local GAAP, we can rewrite equation (1) as follows.

Adopt IFRS if and only if:

Net Economic Value of IFRS + Net Political Value of IFRS + Synchronization Value of IFRS

$$> 0 \qquad\qquad \text{… (2)}$$

We discuss the terms in equation (2) in greater detail in Section 2.3. The inclusion of political determinants in the equation above is distinct to our setting. In all theoretical models of network-dependent products we are aware of, the product is usually a consumer good where

political lobbying for product specification is unlikely to be a major issue. For example, in the earlier case of a user's decision to buy a Mac, the political determinants of autarky would capture the potential benefit to a user from being able to lobby for future features on Macs. Unless the user is a consumer with substantial market power (e.g., the federal government), such political benefits are unlikely to be of concern.

In the context of equation (2) and our earlier discussion on network theory, it is useful to note the following two points. First, a country can adopt IFRS even if the economic benefits from such standards are inferior to those from locally developed GAAP. Second, evidence that synchronization-value proxies explain the IFRS adoption decision is consistent with countries internalizing the network effects of IFRS (i.e., network-effects in IFRS adoption are not network externalities). Both points above have implications for whether IFRS is being adopted for its innate quality or for potential network effects.

2.3. Why do countries adopt IFRS?

In this sub-section, we develop the arguments for and against IFRS adoption in the context of the framework in equation (2). Our analysis focuses on IFRS as developed and sponsored by the IASB starting 2002, and specifically excludes International Accounting Standards promulgated by the IASB's predecessor, the International Accounting Standards Committee (IASC). This is because there is evidence to suggest that IASC standards are culturally quite different from IFRS. In particular, while the IASB's standards are influenced by Pan-European accounting traditions (as discussed shortly), the IASC's work was perceived as more Anglo-centric. The IASC was established in 1973, the year the UK joined the European Community. Benston *et al.* (2006, p. 229) argue that by this time, existing European Community countries had made significant progress towards accounting harmonization, and the IASC was created to help the UK have a voice in future cross-country standardization.

As noted in the introduction, we develop our hypotheses around the IFRS adoption decisions of non-EU countries. We exclude the EU member states from our tests because their decision to adopt IFRS was closely tied to the establishment of the IASB itself (EC, 2000).[7]

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[7] Camfferman and Zeff (2007, p. 431) describe the European Commission's approval of the reorganization of the IASC into the IASB: they quote the Commission as saying that the reorganization was "a vote of confidence" (IASC, 2000, p. 9) and "driven by a clear determination to make [international accounting standards] of the highest quality (EC, 2000, ¶ 9)."

Moreover, the EU member states committed jointly to adopting IFRS (EC, 2002) making an analysis of their individual adoption decisions infeasible. Finally, there is evidence that the development of institutions and practices of the IASB are made in consultation with the EU.[8] In subsequent univariate tests, we provide evidence on the differences between EU countries and the rest of our sample along adoption determinants identified below.

2.3.1. Net economic value of IFRS

We describe the net economic value of IFRS to a country as arising out of two factors: (1) the value from having a shared body of accounting standards; and (2) the relative quality of local governance institutions. We discuss these two factors in greater detail below.

The value from having a shared body of accounting standards: IFRS are developed specifically for wide international use. Proponents of IFRS argue that by adopting a common body of international standards, countries can expect to lower the cost of information processing and auditing to capital market participants (Barth, 2007; 2008). More preparers, users, and auditors of financial reports can be expected to become familiar with one common set of international accounting standards than with various local accounting standards.

If the adoption of IFRS is expected to lower information costs to capital markets, we expect countries more dependent on foreign capital and trade to value these economic benefits more. Absent international accounting standards, foreign investors must incur costs of becoming familiar with domestic accounting practices. These costs are likely to be passed on (at least in part) to the investment-destination country. If adopting IFRS is expected to lower such costs, then we can expect countries that are dependent on foreign capital to do so. Similarly, countries where foreign trade is an important part of the economy can be expected to adopt IFRS. Related to the point above, it can be argued that countries choose to adopt IFRS when they expect to increase the share of foreign capital and trade in their economy: expected foreign involvement in an economy can make current adoption of international

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[8] For example, the IASB, in the wake of declining financial markets in 2008, allowed financial institutions to opt for a one-time reclassification of available-for-sale and trading securities as held-to-maturity (HTM). With the HTM classification, financial institutions could reduce the amount of impairment loss to be recognized (by arguing that not all of the extant decline in the market value of a security would be realized at maturity). It has been suggested in the financial press that the IASB made this decision in response to pressure from the EU (e.g., Leone, 2008).

standards more attractive. In this sense, even countries with low *levels* of foreign capital and trade can choose to adopt IFRS if they are expecting *growth* in those factors.

Adopting IFRS to lower information costs is conceptually distinct from adopting IFRS due to its "network benefits." Conceptually, "network benefits" refer to idea that IFRS becomes more appealing as more countries adopt it (see Section 2.3.3); whereas adopting IFRS to lower information costs refer to the standards' potential "platform benefits."[9]

The relative quality of local governance institutions: We expect the relative quality of local accounting standards to be an important determinant in the decision to adopt IFRS. Local accounting standards are part of a complex system of governance institutions that include auditor training, auditing standards, enforcement (regulatory and judicial), precedent for the protection of property rights, government corruption, and the role of the press, among others (e.g., Ball *et al.*, 2000; Leuz *et al.*, 2003; Watts, 2003; and Ball, 2006). Thus, in studying the IFRS adoption decision, we consider jointly the relative quality of local accounting standards and that of associated governance institutions. Adopting IFRS can be costly if these institutions are collectively not compatible with the international standards. The relative quality of extant governance institutions refers to the ability of these institutions to facilitate the efficient allocation of capital in an economy.

In countries where the quality of extant governance institutions is relatively high, IFRS adoption is likely to be less attractive. High quality institutions represent high opportunity and switching costs to adopting international accounting standards. The opportunity costs arise because in adopting IFRS, countries forgo the benefits of any past and potential future innovations in local reporting standards specific to their economies. IFRS, by definition, are the result of an international political economy equilibrium, and thus cannot be expected to provide reporting standards that are uniquely suited to any given country's circumstances (Leuz and Wysocki, 2008). The switching costs arise because countries with well developed governance institutions are likely to have well developed capital markets, and thus more market participants needing retraining in IFRS.

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[9] To see the distinction between platform and network benefits of IFRS, consider in parallel the case of buying a Mac. The platform benefit of a Mac is determined by one's demand for computing power, while the Mac's network benefit refers to the value perceived from others using Macs. Similarly, the platform benefit of IFRS is determined by a country's demand for internationally harmonized accounting (proxied for by levels of and changes in foreign trade and investment), while the network benefit of IFRS refers to the value perceived from others using IFRS.

For countries where local governance institutions are not well developed, the prediction on IFRS adoption is more nuanced. On one hand, opportunity and switching costs in these countries are lower, so the chance to adopt an externally developed body of accounting standards presents an advantage. On the other hand, such countries are likely to suffer from corrupt, slow-moving, or ineffectual governments that are resistant to or incapable of change (La Porta *et al.*, 1999). At the extreme, countries with weak institutions are failed states, where the adoption of IFRS is unlikely to be of any interest or consequence (e.g., Taliban-ruled Afghanistan or Somalia). Thus, among countries with less developed institutions, the decision to adopt IFRS is likely to be driven by lower opportunity and switching costs only if such countries are in fact capable and willing to make cost-benefit tradeoffs.

2.3.2. Net political value of IFRS

The adoption of IFRS by a country also involves trading off the potential gain from being able to influence international standard setting against the value lost from surrendering local authority over accounting standards. We describe the tradeoffs between these benefits and costs as constituting the net political value of IFRS to a country. We classify the net political value as arising from two factors: (1) international power politics; and (2) culture politics.

International power politics: *Ceteris paribus*, we would expect more powerful countries to have a larger positive political value since more powerful countries are more likely to be able to influence the nature of international standards. The influence of powerful countries can be the result of explicit lobbying and pressure tactics or the result of the IASB implicitly catering to powerful interests when developing standards.

The dominant position of the EU in IFRS standard setting presents, however, an important constraint that is likely to alter the prediction above. As noted earlier, the development of IFRS is strongly linked to support from the EU. The IASB is physically situated within the EU, and to date, the EU remains the IASB's largest sponsor (IASB, 2008a). If a country chooses to adopt IFRS, it must either engage in the political process to try to shape the nature of the international standards, or cede the standard setting role to other political players. It is unlikely that more powerful countries will adopt the latter route; however, if they choose to engage in the political process, they will likely have to enter into

costly political wrangling with the EU. Faced with this choice, it is reasonable to expect that more powerful countries are less likely to adopt IFRS.[10] On the other hand, for less powerful countries, there is little political face lost in adopting EU-centric standards. Thus, *ceteris paribus*, we can predict that less powerful countries are more likely to adopt IFRS.

Culture politics: In addition to country-level power politics, the perception of IFRS as a European institution is likely to affect the international standards' acceptance in a country (Ding *et al*., 2005; Ciesielski, 2007; Norris, 2007). In countries that are culturally more accepting of European institutions, international accounting standards can be more politically feasible. In countries where European institutions are non-native, adoption of IFRS can be viewed as abrogating authority to a European standard-setter. Thus, *ceteris paribus*, we predict countries that are culturally closer to Europe are more likely to adopt IFRS.

2.3.3. Synchronization value of IFRS

The synchronization value of IFRS refers to the key idea in network theory: that a network-dependent product becomes more appealing as more countries adopt it. In testing for network benefits, we test for the effects of regional trends in IFRS adoption. We define regions around continental and sub-continental geographies (Appendix A). If countries within a region are influenced by each others' actions, we can expect the likelihood of IFRS adoption for a given country to increase as the number of IFRS adopters in that region increases. As an additional test of network benefits, we examine whether the likelihood of IFRS adoption for a given country increases in the proportion of its trade partners that are IFRS adopters.[11]

3. Data and proxies

3.1. Developing the dataset

In this sub-section, we describe the construction of our database of non-EU countries and their IFRS adoption status. Our data selection procedures are aimed at generating the widest

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[10] The United States is a likely exception to this rule. Benston *et al.* (2006, p. 230) argue that the IASB has since its founding been actively involved in courting the SEC's approval of its standards.
[11] We use trade *in general* to proxy for the *platform* benefits of IFRS, and trade *with IFRS adopters* to proxy for the standards' *network* benefits. For a country, the platform benefits of IFRS are determined by its demand for international standardization in general, while the network benefit of IFRS refers to the value perceived from others using IFRS in particular.

possible coverage of countries and their adoption status given data requirements for dependent and independent variables. Our dependent variables are the IFRS adoption decision and, where appropriate, the year of adoption. These data are collected from numerous sources including, Deloitte's IASplus.com website, correspondence with country managing partners of big-4 audit firms, web searches of newswire archives, and World Bank country reports. Our independent variables are the proxies for the various IFRS adoption determinants described in the previous section. The proxies are described in the following sub-section.

To construct our database of non-EU countries and their IFRS adoption status, we start with Deloitte's IASplus.com website (accessed July 3, 2008). The website lists IFRS adoption information for 162 legal jurisdictions. Since we are interested in the financial reporting requirements for listed companies in various countries, we first exclude IASplus.com jurisdictions that do not have stock exchanges (15 jurisdictions). Next, we exclude the 30 IASplus.com jurisdictions that compose the member states of the EU/ European Economic Area (EEA). Our reasons for excluding EU countries are discussed earlier. We exclude EEA member states since they adopted IFRS in conjunction with the EU (EC, 2008). Finally, we also exclude those IASplus.com jurisdictions for which the World Bank does not report gross domestic product (GDP) data (15 jurisdictions) in 2001. The World Bank's World Development Indicators (WDI) database is our source for GDP data.

The data selection procedure described above yields a final sample of 102 countries. The countries are listed in Appendix A. As discussed, we obtain the IFRS adoption decision from Deloitte's IASplus.com website. This website does not, however, report the year of IFRS adoption. To obtain adoption-year data, we rely on three different methods: correspondence with country managing partners of big-4 audit firms, web searches of newswire archives, and World Bank country reports. For every country listed as having adopted IFRS on IASplus.com, we contact the country managing partner of a big 4 audit firm with an office in that country requesting data on the date of IFRS adoption. Additionally, we conduct electronic searches of newswire archives for press articles describing a country's adoption of IFRS. Finally, we reference the World Bank's country reports on observance of standards and codes: these reports occasionally detail IFRS adoption dates.

The three auxiliary sources described above jointly yield adoption-year data for every country listed by IASplus.com as having adopted IFRS. In a few cases, data from a country

managing partner of a big 4 audit firm or data from the World Bank country reports disagree with the IASplus.com data on the country's adoption status itself. For example, Egypt and Peru were listed on IASplus.com as requiring IFRS for all listed companies, but at least one (non Deloitte) big 4 audit partner in each country disagreed: the partners argued that IFRS was not permitted in those countries. In these circumstances, we err in favor of the big 4 audit partner/ World Bank country report. The disagreement between even big 4 audit firms on the nature of IFRS adoption in some countries suggests that even if a country is formally listed as having adopted IFRS, the adoption may be a token gesture. This is an important caveat to our analysis.[12]

The earliest possible year of adoption in our sample is 2002 (the first year after the formation of the IASB). Since macroeconomic data that compose our independent variables are not available for years beyond 2007, we censor adoption information in 2007. In other words, we record the IFRS adoption status and the year of adoption (if applicable) between the years 2002 and 2007. Even if a country has adopted IFRS since 2007, they are classified as non-adopters for the purposes of our empirical tests. There are four such countries in our sample effective July 3, 2008. If the determinants of IFRS are dynamic, then our results are only valid in sample. Thus, the results, in the context of any ongoing policy debate, should be interpreted with caution.

Country-level adoption decisions on the IASplus.com website are categorized into four groups: IFRS required for listed companies; IFRS required for some listed companies; IFRS permitted for listed companies; and IFRS not permitted for listed companies. For the purposes of our empirical analyses, we reclassify these four categories into three: adopters; partial adopters; and non-adopters. The "adopters" in our dataset are those classified by IASplus.com as having "IFRS required for listed companies." The "non-adopters" are those classified as having "IFRS not permitted for listed companies." The "partial adopters" in our dataset are a combination of the second and third IASplus.com categories. We combine these two categories into "partial adopters" since only four countries in our sample of 102 can be classified as having "IFRS required for some listed companies."

3.2. Developing proxies for the IFRS-adoption determinants

In this sub-section, we describe our proxies for the determinants of IFRS adoption identified in Section 2.3. The data for these proxies are collected from numerous data sources

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[12] Reassuringly, the IASB itself relies on IASplus.com as a data source (IASB, 2008a, b).

including, the World Bank's WDI database, Andrei Shleifer's website at Harvard University,[13] the Economist magazine's data archives, and the United Nations website. Appendix B provides a detailed list of all proxies, definitions, and original sources.

Value from having a shared body of accounting standards: In Section 2.3.1, we argue that countries where the level and expected growth in foreign capital and trade are higher are more likely to value the economic benefits that can accrue from adopting IFRS. Our proxies for the level of foreign capital are the ratio of net foreign direct investment inflows to GDP (*FDI*) and the ratio of foreign equity portfolio investments to GDP (*FEPI*). Data to compute *FDI* and *FEPI* are obtained from the WDI database. We collect values for these variables for all years from 2001 through 2006. The independent variables lag the dependent variables by one year since contemporaneous macroeconomic data are unlikely to be available when a country is considering IFRS adoption. Our proxies for expected growth in foreign capital are realized growths in *FDI* and *FEPI* over the relevant prior one-year period (*FDI_Chg* and *FEPI_Chg*). We measure the level of and expected growth in foreign trade as the ratio of exports of goods and services to GDP (*Exports*) and the one-year change in exports-to-GDP (*Exports_Chg*), respectively. As with foreign investments, data on exports are collected from the WDI database for the period 2001 through 2006 period.

Quality of local governance institutions: Obtaining good proxies for the quality of local governance institutions is particularly difficult for at least two reasons. First, the governance institutions in a country are likely to be influenced by its natural endowment and endogenous to its other human institutions: thus, a governance system that is "good" (high quality) for one economy can be ineffective in others. A cross-country metric of governance institution quality must account for this potential variation in governance institutions. Second, data to construct detailed cross-country metrics are limited to a few, mostly large economies. For example, McKinsey & Company puts out the results of an annual CEO survey of governance factors like the quality of auditing and accounting, but these data are only available for about 25 non-EU countries.

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[13] http://www.economics.harvard.edu/faculty/shleifer/dataset; accessed July 3, 2008.

In obtaining proxies for the quality of local governance institutions, we consider both process-based and output-based measures. Process-based measures like governance indices are popular in the literature. The problem with these measures, as alluded to earlier, is that different processes are likely to be optimal for different economies, depending on their natural endowments and other human institutions. Output-based measures like GDP are appealing because notwithstanding the process, if the objective of all governance institutions is economic development, outputs are a reliable indicator of the quality of those institutions. The problem with output-based measures is that natural endowments and human institutions not concerned with governance can influence outputs independently of governance systems. Our joint use of process and output based measures (through factor analysis, discussed shortly) is an attempt to mitigate these competing costs and benefits.

On process-based measures, we obtain both broader indicators like indices of credit rights (*Credit_Rights*), property rights (*Prop_Rights*), and government corruption (*Gov_Corruption*) from Andrei Shleifer's website and more narrow measures like the number of days to enforce a contract (*Days_Enforce*) and the number of rules to start a business (*Startup_Rules*) from the WDI database. In addition, we use the Economist magazine's democracy score (*Econ_Democracy*). The score (scaled from 1 to 10) is intended to capture the quality of the electoral process, the functioning of government, diversity in political participation, and the extent of civil liberties. Finally, Bushman and Piotroski (2006) refer the literature to an index of the impartiality of the judicial system produced by the Fraser Institute, which we also incorporate in our analysis (*Fair_Courts*). The broad indices that capture rights of capital owners, judicial processes, corruption, and civil liberties are likely to be correlated with the information and control institutions that facilitate efficient allocation of capital in an economy; they are, however, subjective. The narrower measures like contract-enforcement days and start-up rules are more objective and can proxy for poor government facilitation of business (bureaucratic red tape), or entrenched business interests (oligopolists who have created barriers to entry), or both.

Our primary output-based measure is per capita GDP (*GDP_PC*). Countries with higher per capita GDP are richer, and thus, more likely to have better developed governance institutions. Of course, as noted earlier, per capita GDP is also influenced by natural endowments, so we calculate a measure of GDP that attempts to separate the effects of the

16

latter, *GDP_PC_HI*. Specifically, *GDP_PC_HI* is the residual from an annual regression of per capita GDP on exports of fossil fuels, minerals, and ores. In addition to GDP, we use data on stock market size (*Stock_GDP*) and turnover (*Stock_Turn*): the relative size and activity of a country's stock markets can be a reasonable output-based indicator of the quality of its capital market governance. Finally, we use two human-development-based output measures, *Infant_Mortality* and *Adult_Illiteracy*. While, the relation between the human development measures and the quality of information and control institutions is likely indirect, countries with the poorest human development are likely to be failed or near-failed states, where adoption of IFRS is unlikely to be of any interest or consequence.

International Power Politics: We use a host of proxies to identify cross-sectional variation in countries' power status. First, we use the number of years a country has been elected to the United Nations Security Council (*UNSC*). Being elected to the Security Council requires political influence since countries must gain the support of a plurality of the United Nations General Assembly. We argue that the political influence necessary of a country to secure a Security Council seat can be a reasonable proxy for the ability of a country to advance its interests with an international body like the IASB. Security Council membership data are aggregated by year from the inception of the United Nations in 1946. As before, data for the years 2001 through 2006 are collected. Data for all countries up to year 2001 are available in Kuziemko and Werker (2006). Subsequent data are collected from the United Nations website. The five permanent members of the UNSC (China, France, Russia, the United Kingdom, and the US) are coded as being members in every year since 1946 (and thus are represented by this measure as being very powerful).

In addition to years on the Security Council, we also represent a country's power by its *GDP_Rank* (in current US dollars), its *Population*, and its geographic *Area*. The rationale for *GDP_Rank* is that larger economies are more likely to have bargaining power on the international stage than smaller ones. *Population* is used as a proxy for the size of a country's market. Countries with larger markets are more attractive destinations for investors are thus also more likely to have political bargaining power. *Area* can also be a proxy for power since larger countries are historically more powerful (they require larger militaries to establish and maintain their territories). Data on GDP and population are collected from the WDI database

17

on a yearly basis for the years 2001 through 2006. Area data are collected from the website worldatlas.com and are static over the years 2001 through 2006.[14]

Cultural closeness to Europe: To proxy for countries that are culturally closer to Europe, we use the proportion of a country's population that is Christian (*Christian*). We argue that more Christian nations are more likely to be comfortable with European institutions like IFRS since Christianity in these countries is likely to have spread through colonization by European powers. Data on the proportion of Christians in a population are based on 1980 census reports as provided on Andrei Shleifer's website.

Erstwhile colonial relationships with Europe can result in strong cultural ties regardless of religion. Such ties are likely to grow stronger with the passage of time, as the iniquities of colonization fade, and the colonized views the colonizer more favorably. Accordingly, as a second proxy for cultural closeness, we use the number of years that a country has been independent from its longest-ruling colonial power, if that power is a current EU member state (*Years_Free*). Non-EU countries that have never been systematically colonized are coded zero, and thus regarded by this measure as being culturally distant from Europe.[15]

Network effects: We construct three different country-year measures of network effects. The first, *Pct_Adopt*, is the percentage of countries within a geographic region that have adopted IFRS as of the prior year. The second, *GDP_Pct_Adopt*, is the GDP-weighted percentage of countries within a geographic region that have adopted IFRS as of the prior year. The regions used to compute both *Pct_Adopt* and *GDP_Pct_Adopt* are defined in Appendix A. The third measure, *IFRS_Trade*, is the percentage of total exports to countries that have adopted IFRS as of the prior year. The network-effect proxies enter the analysis in subsequent hazard-model-based multivariate tests.

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[14] In primary analyses, we choose relatively exogenous macroeconomic variables to proxy for the political determinants of IFRS adoption rather than more explicit measures of the relationships between countries and the IASB (e.g., the number of trustees from a given country on the IASC Foundation). Our choice is driven by concerns over endogeneity. We report on regressions using these explicit relationship measures in robustness tests.

[15] We do not use proxies for culture developed by Hofstede (1980; 2001) for three reasons: (1) we are interested in measuring cultural closeness to Europe, not culture *per se* (which is Hofstede's focus), (2) we are interested in keeping the sample as large as possible (we do not want to be limited by Hofstede's sample size); and (3) Hofstede's work has recently come under some criticism in the accounting sociology literature (Baskerville, 2003).

On economic and political determinants, we have identified numerous individual proxies. Since these proxies collectively address the determinants we are interested in measuring, we extract common factors from them using principal component analysis. Specifically, we identify the first principal component of the proxies with the widest coverage (details below) for each of the economic and political determinants. In subsequent multivariate tests, we use these common factors in lieu of the individual proxies themselves. Appendix C reports on the factor components, factor loadings, and Eigen values (all above one) for all factors.

On the value from having a shared body of accounting standards, we extract two distinct proxies, one measuring the level of foreign capital and trade and the other the growth. We refer to these factors as "*Platform*" and "*Platform_Chg*," respectively, because the direct value from having a shared resource is sometimes referred to in the literature as the "platform benefit." In computing "*Platform*" and "*Platform_Chg*," we exclude foreign equity portfolio investments because these data are not available for about 20% of our sample.

Among the numerous process- and output-based measures of the quality of local governance institutions, we use contract-enforcement days, start-up rules, the Economist's democracy index, and per capita GDP to construct the factor, *Q_Local_Gov1*. Our choice of these particular proxies is driven by their availability for a wide cross-section of countries. The other governance institution proxies are all significantly correlated with *Q_Local_Gov1*. Figure 1 shows scatter plots for four of those proxies (on the y axes), *Fair_Courts*, *Gov_Corruption*, *Stock_GDP*, and *Infant_Mortality*, with *Q_Local_Gov1* (on the x axis). Of particular interest are *Gov_Corruption* and *Infant_Mortality*, since at the extremes, both these proxies can measure the domestic political conditions that make for failed states.

Since per capita GDP is influenced by natural endowments, we calculate a substitute factor, *Q_Local_Gov2*, which is the first principal component of contract-enforcement days, start-up rules, the Economist's democracy index, and *GDP_PC_HI*. In subsequent empirical tests, we alternately use both *Q_Local_Gov1* and *Q_Local_Gov2*. The factor "*Inter_Power*" is used to represent international power politics: it is the first principal component of the number of years a country has been elected to the UNSC, the country's GDP rank, population, and area. The factor "*Culture*" is used to proxy for a country's cultural closeness to Europe. It is constructed from the proportion of a country's population that is Christian and *Years_Free*.

4. Descriptive statistics and univariate evidence

4.1. Sample composition

Our data sources and sample construction process are described in Section 3.1. Table 1 reports the number of countries classified as adopters, partial adopters, and non-adopters. The numbers of adopters and non-adopters are roughly similar at 39 and 40, respectively; while partial adopters include 23 countries. Panel B describes adoption frequency by year. The normal annual adoption rate does not exceed 4 countries per year. Nevertheless, 10 countries from our sample adopted in 2005, the year in which EU member countries adopted.

4.2. Descriptive statistics and univariate evidence on autarky value

We compare EU member states and our sample countries in Table 2, Panel A. The two groups are significantly different on all but a few dimensions. The EU countries are characterized by greater exports and greater foreign direct investment. They tend to have higher quality of local governance institutions as measured by fewer *Startup_Rules*, higher *Econ_Democracy*, greater *GDP_PC*, and a greater value of stocks traded as % of GDP (*Stock_GDP*). In terms of political power, they have a higher *GDP_Rank* and a higher representation on the United Nations Security Council (although latter differences are not statistically significant). Overall, there is some evidence that EU countries are more powerful, more reliant on international capital and trade, and more likely to have better governance institutions than non EU countries.

Table 2 also provides descriptive statistics that compare full and partial adopters to non-adopters in the sample. Panel B compares the proxies, while Panel C compares the factors derived from those proxies. Partial adopters generally do not differ significantly from non-adopters, except on international power metrics. The partial adopters have shorter Security Council tenures, a lower *GDP_Rank*, and smaller population and areas than non-adopters. A similar result can be found in Panel C, where the median value of "*Inter_Power*" is significantly lower for partial adopters.

Among full adopters, we also find some preliminary evidence that more powerful countries are less likely to adopt IFRS. Both mean and median "*Inter_Power*" are significantly smaller for full adopters than for non-adopters. Moreover, means and medians of all variables that comprise these factors (*UNSC*, *GDP_Rank*, *Population*, and *Area*) are also significantly

20

smaller for full adopters. There is mixed univariate evidence that adopters and non-adopters differ with respect to our proxies for international capital and trade. In particular, while the median values of *Exports*, *Platform*, and *Platform_Chg* are greater for full adopters than non adopters, the means are not significantly different. Evidence is similarly mixed for the quality of local governance institutions. Median *Q_Local_Gov1* is greater in full adopters than non adopters, but there is little evidence to supplement this among other statistical comparisons of governance institutions. This last result is not surprising since governance institutions can be expected to have a non-linear relation with IFRS adoption (i.e., both countries with the best and worst governance institutions are less likely to adopt IFRS).

Overall, the univariate tests reported in Table 2 provide evidence that non-adopters are more powerful on average than either full or partial adopters. Comparisons along other dimensions yield mixed or no results. We treat this evidence as preliminary and further explore the autarky value of IFRS in our multivariate tests described in Section 5. Table 3 reports correlations among the principal component factors that are used in our multivariate tests. Correlations between factors that are to enter subsequent regression analyses simultaneously do not exceed 0.3, providing some evidence that the factors capture theoretically autonomous constructs.

4.3. Univariate evidence on synchronization value

In Table 4, we provide some univariate evidence on the role of network effects in IFRS adoption decisions as of 2007. Specifically, in Panel A, we use Chi-Square tests to examine whether IFRS adoption by over 50% of countries in a region increases the likelihood of a country adopting IFRS in year 2007. The Chi-Squared statistic for a comparison of full adopters, partial adopters, and non-adopters across the 50% threshold has a p-value of 0.053. Thirty-six percent (14 of 39) of full adopters are from regions with a >50% adoption rate, compared to 26% of partial adopters and 13% of non-adopters. In Panel B, we test whether IFRS adoption by countries representing at least 50% of a region's GDP increases the likelihood of a country adopting IFRS in year 2007. The Chi-Squared statistic for a comparison of full adopters, partial adopters, and non-adopters across the 50% GDP threshold has a p-value of 0.037. Among partial and full adopters, 39% of countries are from regions with a >50% GDP adoption rate, compared to 18% among non-adopters.

In Panel C, we test whether a country is more likely to adopt IFRS in year 2007 when over 10% of its export destinations are IFRS adopters (we choose 10% because it represents the approximate mean and median year 2007 value of *IFRS_Trade*). Of the 48 countries for which exports to IFRS adopters represent over 10% of total exports, 22 countries (46%) are themselves full adopters in 2007. In contrast, of the 54 countries for which exports to IFRS adopters represent less than 10% of total exports, 17 countries (31%) are themselves full adopters in 2007. The Chi-Squared statistic for a comparison of full adopters, partial adopters, and non-adopters across the 10% export threshold is, however, not statistically significant.

5. Multivariate model and evidence

5.1. Hazard model analysis

Our primary multivariate tests are based on hazard model analyses. The hazard model allows us to test the determinants of countries' IFRS adoption decisions as functions of the relative timing of adoption. Additionally, the hazard model lends itself to investigating how trends in IFRS adoption among other countries affect a given country's adoption decision (network effects).

In the hazard analysis, full adoption of IFRS is modeled as the "failure" event, i.e., the dependent variable is the time to full IFRS adoption. Let "T" be the "survival" time, i.e., the number of years till full IFRS adoption. Then, T=1 if a country adopts IFRS in 2002, T=2 if a country adopts IFRS in 2003, and so on. Since the data are censored in 2007, the highest possible value for T is six. For countries that do not adopt by 2007 or countries that adopt only partially, T is set to six, and the dependent variable is treated as censored.[16] In subsequent analysis, we estimate how the hazard rate, h(t), and survival probability, S(t), vary as a function of determinants of IFRS adoption. h(t) and S(t) are defined below.

$$h(t) = f(t) / S(t) \dots (3)$$

$$S(t) = 1 - F(t) \dots (4)$$

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[16] We include partial adopters with non-adopters because adoption dates for these countries are not available. This treatment of partial adopters is consistent with results in Table 2, where there is little evidence of differences between partial and non- adopters along the economic and political determinants identified.

Where f(t) is the probability density function of T and F(t) is the cumulative probability density function of T.

We estimate two different versions of the hazard model: the counting process hazard model (Therneau and Grambsch, 2000) and the more-familiar Cox proportional hazard model. The counting-process method is based on a discrete formulation of the dependent variable (i.e., survival time T), which is likely to be more appropriate for our data since we measure T in years (the Cox model assumes T is continuous). Moreover, in situations where the range of possible values for T is low (as in the case of our data where T varies between 1 and 6), Box-Steffensmeier and Jones (2004) argue counting-process method is likely to be more appropriate for hazard analyses. On average, however, the two methods (Cox and counting-process) are expected to yield similar results, which is the case in this paper. Consequently, we only report results based on the counting process model.

A positive coefficient on a covariate in the hazard model implies that the hazard rate is increasing (survival time is decreasing) in that covariate. In other words, a positive coefficient on a covariate implies that the likelihood of IFRS adoption is increasing in the covariate. To provide an estimate of the economic significance of a coefficient, we also report the % change in the hazard rate in our results. The % change in the hazard rate is the % change in h(t) when the value of a covariate in question is changed from its 25th to its 75th percentile value.

The independent variables in our hazard analysis are time-varying covariates (TVCs). TVCs are appropriate for our setting since many of our covariates are based on macroeconomic variables that change over the event measurement period (i.e., 2002 through 2007). As discussed earlier, the TVCs are lagged values, i.e., covariates for 2002 are actually macroeconomic data from 2001 and so on. Lagged TVCs are recommended by Petersen (1995) to avoid the event simultaneity problem in hazard modeling.

If, as we argue, adoption decisions within regions are correlated, then the data are serially dependent and we have less information than will be assumed in computing ordinary standard errors. In other words, if adoption decisions within regions are correlated, ordinary standard errors will be understated. Accordingly, in all our hazard analyses, we cluster standard errors at the region level. The clustering is done using the process described in Lin and Wei (1989) and is

likely to be particularly important when evaluating the statistical significance of the proxy for synchronization effects (i.e., the proportion of countries within region that have adopted).

Table 5 reports the results of the counting-process hazard analysis. There are four panels to Table 5. In Panel A, the independent variables include: *Platform*, *Platform_Chg*, *Q_Local_Gov1*, *Inter_Power*, *Culture*, and *Pct_Adopt*. We also include the squared value of governance institution quality, *Q_Local_Gov1^2*, since we predict a non linear relation between governance institution and IFRS adoption. In Panel B, we use *GDP_Pct_Adopt*, the GDP-weighted proportion of IFRS adopters within a country's geographical region, to proxy for network effects. All other covariates are similar to those in Panel A. Panel C is also similar to Panel A, except that network effects are represented by *IFRS_Trade*, the percentage of total exports to countries that have adopted IFRS as of the prior year. In Panel D, we use *Q_Local_Gov2* to proxy for governance institution quality, i.e., we use the governance institutions factor that controls for the effects of natural endowments on GDP. All other covariates in Panel D are similar to those in Panel A.

Inferences are similar across all four panels of Table 5. Specifically, the coefficients on proxies for governance institution quality, international power politics, and network effects are statistically significant at the 95% confidence level or greater, while the coefficients on proxies for cultural closeness to Europe and levels and changes of international investment and trade are not. The evidence in Table 5 does not confirm that countries adopt IFRS because they value having a shared body of international standards or that cultural considerations vis-à-vis Europe affect IFRS adoption decisions.

There is evidence that quality of local governance institutions has a non-liner association with IFRS adoption. The first-order coefficients on the factors for governance institutions are positive, while the second-order coefficients are negative. The marginal effects on these coefficients in Panel A of Table 5 suggest that an inter-quartile increase in *Q_Local_Gov1* is associated with a 96.38% increase in the hazard of adopting IFRS, while an inter-quartile increase in *Q_Local_Gov1^2* is associated with a 28.62% decrease in the hazard rate (intuitively, the hazard measures the conditional probability of IFRS adoption). The evidence suggests that IFRS adoption is less likely among both countries with the poorest governance institutions, where international harmonization of accounting standards is unlikely to be of must interest, and

countries with good governance institutions, where IFRS adoption is likely to be associated with high opportunity and switching costs.

The negative coefficients on the proxies for international power politics imply that IFRS adoption is less likely among more powerful countries. This relation is consistent with the proposition that more powerful countries are more wary of losing domestic authority over accounting standard setting. The dominance of the EU in IFRS standard setting and uncertainties in the political process of international standard setting can be associated with the reluctance of more powerful countries to adopt IFRS. The change in hazard statistic for power in panel A of Table 5 is -43.98% indicating that an inter-quartile increase in the *Inter_Power* covariate is associated with a 43.98% decrease in the hazard ratio.[17]

The positive coefficients on *Pct_Adopt* and *GDP_Pct_Adopt* are consistent with the proposition that IFRS adoption is more likely as the proportion of regional adopters increases. The positive coefficient on *IFRS_Trade* is also consistent with the existence of network effects. The results indicate that countries do account for the network effects of IFRS when considering whether to adopt the international standards: in other words, the network benefits of IFRS cannot be considered externalities. The magnitude of the network proxy in Panel A suggests that when the proportion of IFRS adopters in a region increases from 14% to just about 50%, the hazard of IFRS adoption for a country in that region increases by over 230%.

Overall, from the hazard analyses we can conclude the following: (1) more powerful countries are less likely to adopt IFRS; (2) a country is more likely to adopt IFRS as the proportion of IFRS adopters within its region or among its trade partners increases; and (3) there is a quadratic relation between the quality of local governance institutions and IFRS adoption, where adoption at first increases and then decreases with governance quality.

5.2. Additional analyses

As a more explicit measure of switching costs to IFRS, we rerun the regressions after including a dummy for whether IFRS is produced in the country's official language. As of 2008,

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[17] As noted earlier, we use the number of years a country has served on the UNSC as an input in constructing our measure of power. China, Russia, and the US, as permanent members of the UNSC, are thus assigned relatively high scores on power. None of these three countries have adopted IFRS fully. To ensure that the results on power are not driven by the permanent UNSC members, we repeat the analysis in Table 5 after excluding these countries (China, Russia, and the US) from the sample. The results are substantively unchanged, suggesting that the sign and significance on power in our multivariate analyses are not driven by the disproportionate influence of permanent membership in the UNSC on this measure.

the only IASB-reviewed version of IFRS is in English, thus, the dummy identifies countries with English as an official language (mostly, former British colonies that conduct at least some official government business in English). This variable is not statistically significant, nor does its inclusion in the regressions alter any inferences discussed thus far (results are not tabulated).

In testing the hypothesis that IFRS adoption is more likely among countries that are culturally closer to Europe, we use the proportion of Christians in a population and the number of years since a country became independent from an EU country as our proxies. We deliberately avoid using legal origin to proxy for cultural closeness because legal origin is associated with a colonial relationship, and it is not clear that a previously existing colonial relationship in itself indicates a close cultural tie between colonized and colonizer. Moreover, given that European countries once colonized most of the globe, a measure of closeness based solely on former colonial relationships would identify most countries in the world as culturally close to Europe.

Notwithstanding the argument above, given that the IASB is the successor body to the Anglo-centric IASC (which was popular within the Commonwealth), it is possible that current IASB adopters are more likely to be former British colonies. In other words, it is possible that a substantial fraction of current IASB adopters are carryovers from the IASC regime. We test this conjecture by repeating our multivariate tests upon including a dummy to indicate whether a country has a British-style common law system. The coefficient on this dummy is not statistically significant and already discussed results are unchanged (results unreported).

In the tests reported on so far, we have used relatively exogenous macroeconomic variables to proxy for the political determinants of IFRS adoption. In Table 6, we report on tests using more explicit variables for the relationships between countries and the IASB. In particular, we repeat the regressions in Table 5 upon including, alternatively, (a) the number of trustees on the IASC Foundation from a given country, and (b) a dummy variable if the country is a donor to the IASC Foundation. The number of trustees on the IASC Foundation can proxy for a country's influence with the IASB, and thus for the acceptability of IFRS to that country: countries with greater representation on the IASC Foundation are more likely to adopt IFRS. A similar argument can be made for donations from a given country to the IASC.

Both the number of IASC trustees and donations to the IASC are likely to be endogenously determined with the dependent variable, IFRS adoption. In other words, IFRS adopters are more likely to both have representation on the IASC board and be financial

26

supporters of the IASB, and the direction of causality is difficult to specify. Accordingly, the results from the analysis in Table 6 should be interpreted with caution. The results from Panel A suggest that after controlling for determinants discussed earlier, the likelihood of IFRS adoption is increasing in the number of trustees from a given country at the IASC (the coefficient on the trustee variable is positive and significant at the 95% confidence level): an increase from zero to one IASC trustee increases the hazard of IFRS adoption by 181%. However, Panel B finds no evidence of a relationship between IFRS adoption and a country's IASC donation history. The previously discussed inferences from Table 5 are not affected by inclusion of the IASC proxies in Table 6.

In additional robustness tests, we use a multinomial logit model in lieu of hazard analysis to model the determinants of IFRS adoption. Multinomial logit analysis is less suitable to hazard analysis in our setting because it cannot account for richness in the data about the year of adoption. However, the multinomial logit model allows us to treat full adopters, partial adopters, and non-adopters separately (because the model accommodates nominal data as the dependent variable), rather than force the adoption categories into a binomial choice. The primary findings from the multinomial logit model analysis are that full adoption of IFRS is more likely for countries with higher levels of (but not changes in) international investment and trade, and less likely for more powerful countries and countries with the poorest governance institutions. The multinomial logit tests find no evidence of differences between non-adopters and partial adopters along any of the economic and political determinants except levels of international investment and trade. This finding supports our treatment of partial adopters in the hazard analyses.

6. Conclusion

We investigate why there is heterogeneity in countries' decisions to adopt IFRS; in other words, why some countries adopt IFRS while others do not. We focus our analysis on a sample of 102 non-EU countries, excluding the EU because of it closeness to the IASB. We examine IFRS adoption over the period 2002 (the first full year of the IASB's existence) through 2007.

We use the economic theory of networks to develop our hypotheses since a standard like IFRS is likely to be more appealing to a country if other countries adopt it as well. In other words, network theory allows us to explain the inter-temporal increase in the adoption of IFRS across countries. We find evidence consistent with the likelihood of IFRS adoption for a given

country increasing with the number of IFRS adopters in its geographical region and with IFRS adoption among its trade partners. The result is significant for at least two reasons: (1) it suggests countries internalize the network effects of IFRS in their adoption decisions; and (2) it suggests that as the network benefits from IFRS get large, countries may adopt the international standards even if the direct economic benefits from such standards are inferior to those from locally developed standards.

Economic network theory predicts that in addition to network benefits (synchronization value), a product with network effects can be adopted due to its direct benefits (autarky value) (Katz and Shapiro, 1985; Liebowitz and Margolis, 1996). In the case of the IFRS adoption decision by a country, we argue the direct benefits are represented by both the net economic and net political value of IFRS over local standards.

The net economic value of IFRS is intended to capture direct pecuniary benefits as they are usually conceived in economic models of networks. Accordingly, we test whether economies that are more reliant on foreign investment and trade are more likely to adopt IFRS and whether the likelihood of IFRS adoption decreases with the quality of domestic governance institutions (a proxy for both opportunity and switching costs). We find no evidence that the level of and expected changes in foreign investment and trade affect the likelihood of adoption. Thus, we cannot confirm that IFRS lowers information costs in more globalized economies. We do find some evidence that the likelihood of IFRS adoption at first increases and then decreases in the quality of countries' domestic governance standards. This result can be interpreted as consistent with both the most poorly governed countries being less responsive to international standards, and all other countries conditioning their IFRS adoption decisions on the opportunity and switching costs of domestic governance standards.

The net political value of IFRS is the benefit arising from the potential political nature of international accounting standard setting. If countries expect the EU to have a dominant role in IASB affairs (Brackney and Witmer, 2005), they are likely to have to cede some authority over standard setting to EU interests. Ceding authority over local standards is, in turn, likely to be less palatable to more powerful countries, which leads to the prediction that more powerful countries are less likely to embrace IFRS. There is evidence in the data consistent with this proposition. In addition to standard-setting power, cultural sensitivities can also affect the net political value of IFRS to a country. If the IASB is perceived as a European institution, countries that are culturally

28

more distant from Europe are likely to be less accepting of IFRS (Ding *et al*., 2005; Ciesielski, 2007; Norris, 2007). However, we do not find evidence of cultural differences between adopters and non-adopters.

Our study of IFRS adoption at the country-level can complement recent firm-level studies on IFRS. The results of these firm-level studies are mixed. Barth *et al*. (2008) conclude that "firms applying [IFRS] from 21 countries generally evidence less earnings management, more timely loss recognition, and more value relevance of accounting amounts than do a matched sample of firms applying non-US domestic standards." Armstrong *et al*. (2008) in studying the stock market reaction in European companies to events associated with the adoption of IFRS in the EU also find evidence "consistent with investors expecting net information quality benefits from IFRS adoption." In contrast, Daske *et al*. (2008) are cautious "to attribute the capital-market effects for mandatory adopters solely or even primarily to the IFRS mandate;" while Christensen *et al*. (2008) find that improvements in earnings management and timely loss recognition behavior among IFRS adopting firms are "confined to firms with incentives to adopt," suggesting that "incentives dominate [IFRS] in determining accounting quality."

Firm-level studies of IFRS adoption are conditional on countries' decisions to allow or mandate IFRS, suggesting that firm-level studies examine the second stage in what is at least a two-stage process. Further, since firm-level studies require significant amounts of cross-company data, they have been limited to firms in a few (mostly developed) countries where corporate financial reports are available in machine-readable format. By examining IFRS adoption across 102 different (non-EU) countries, we expand our understanding of the determinants and consequences of IFRS adoption to a more global sample. Our evidence of a higher IFRS adoption rate among countries with moderate governance standards is consistent with IFRS being adopted for reasons that can be beneficial to a country. At the same time, the evidence that the best governed and most powerful non-EU countries were, as of 2007, less likely to adopt IFRS, suggests that several countries still perceived IFRS as being costly.

We caution against any broad interpretation of the results in this paper in the context of any ongoing policy debate on IFRS adoption. There are two reasons for this caveat. First, the data in the paper on country-level IFRS adoption are based largely on information provided by Deloitte on its IASplus.com website. While even the IASB relies on these data (IASB, 2008a, b), our correspondence with managing partners of non-Deloitte big-4 audit firms in some countries

reveal potential errors in the IASplus.com dataset. The "errors" are likely due to disagreements among auditors on the extent to which a country has adopted IFRS: several countries adopt "modified" versions of IFRS, and we suspect auditors do not agree on whether the modifications are substantial enough to constitute something apart from IFRS.

Second, as noted earlier, our analysis covers IFRS adoption through year 2007. As more countries adopt the international standards, the network benefits from IFRS adoption are likely to increase. This, in turn, can change the relative importance of direct (autarky) benefits and costs in determining IFRS adoption. In other words, the determinants of IFRS adoption are likely to be dynamic, so the magnitude of coefficients documented in this paper are likely to vary as the set of adopters (or non-adopters) is expanded.

The network-theoretic framework we use to explain the adoption of IFRS across country-time can be applied in the study of other accounting and corporate governance phenomena. For example, the adoption of accounting methods, accounting standards, and corporate governance best practices by firms and jurisdictions are likely to depend on similar such actions by competitors and associates. In other words, inter-temporal variation in adoption decisions in panel data, commonly studied in the accounting literature, can be explained by the "network" value of the product being adopted. The method employed in this paper can be a first step towards a broader use of network theory in motivating such studies.

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Appendix A: List of sample countries by region

Region	Country		Region	Country		Region	Country	
Asia-Pacific			*...Former Communist Bloc*			*...Middle-East*		
	Australia	(A)		Belarus	(PA)		Kuwait	(A)
	Bangladesh	(NA)		Bosnia and Herzegovina	(A)		Lebanon	(A)
	Bhutan	(NA)		Croatia	(NA)		Morocco	(A)
	China	(NA)		Georgia	(A)		Oman	(PA)
	Fiji	(A)		Kazakhstan	(A)		Qatar	(A)
	Hong Kong	(A)		Kyrgyzstan	(A)		Saudi Arabia	(A)
	India	(NA)		Macedonia	(A)		Syria	(NA)
	Indonesia	(NA)		Moldova	(NA)		Tunisia	(NA)
	Japan	(NA)		Russia	(PA)		United Arab Emirates	(NA)
	Laos	(PA)		Serbia	(A)	*North America*		
	Malaysia	(NA)		Tajikistan	(A)		Canada	(NA)
	Maldives	(PA)		Ukraine	(NA)		Mexico	(NA)
	Nepal	(NA)		Uzbekistan	(NA)		United States	(NA)
	New Zealand	(A)	*Latin America*			*Sub-Saharan Africa*		
	Pakistan	(NA)		Argentina	(NA)		Benin	(NA)
	Papua New Guinea	(A)		Bolivia	(PA)		Botswana	(PA)
	Philippines	(NA)		Brazil	(PA)		Burkina Faso	(NA)
	Singapore	(NA)		Chile	(NA)		Cote D'Ivoire	(NA)
	South Korea	(NA)		Colombia	(NA)		Ghana	(A)
	Sri Lanka	(PA)		Costa Rica	(A)		Kenya	(A)
	Thailand	(NA)		Ecuador	(NA)		Lesotho	(PA)
	Vietnam	(NA)		El Salvador	(PA)		Malawi	(A)
Caribbean				Guatemala	(A)		Mali	(NA)
	Aruba	(PA)		Guyana	(A)		Mauritius	(A)
	Bahamas	(A)		Honduras	(NA)		Mozambique	(PA)
	Barbados	(A)		Nicaragua	(A)		Namibia	(A)
	Dominica	(PA)		Panama	(A)		Niger	(NA)
	Dominican Republic	(A)		Paraguay	(PA)		South Africa	(A)
	Haiti	(NA)		Peru	(NA)		Suriname	(PA)
	Jamaica	(A)		Uruguay	(NA)		Swaziland	(PA)
	Trinidad and Tobago	(A)		Venezuela	(A)		Tanzania	(A)
Europe			*Middle-East*				Togo	(NA)
	Switzerland	(PA)		Bahrain	(A)		Uganda	(PA)
	Turkey	(A)		Egypt	(A)		Zambia	(PA)
Former Communist Bloc				Iran	(NA)		Zimbabwe	(PA)
	Armenia	(A)		Israel	(NA)			
	Azerbaijan	(PA)		Jordan	(PA)			

Adoption status is listed in parentheses next to the country name with (A) indicating full adopters of IFRS, (PA) indicating partial adopters (i.e. countries in which IFRS is required for some listed companies or in which IFRS is permitted for listed companies), and (NA) indicating non-adopters as of 2007.

Appendix B: Variable definitions

Primary Effect	Variable	Definition	Source
Value from having a shared body of accounting standards	Levels		
	Exports	ratio of exports of goods and services to gross domestic product (GDP)	World Bank
	FDI	ratio of foreign direct investment (FDI) inflows to GDP	
	FEPI	ratio of foreign equity portfolio investments (FEPI) inflows to GDP	World Bank
	Changes		
	Exports_Chg	one-year change in ratio of exports of goods and services to GDP	World Bank
	FDI_Chg	one-year change in ratio of foreign direct investment (FDI) inflows to GDP	World Bank
	FEPI_Chg	one-year change in ratio of foreign equity portfolio investments (FEPI) inflows to GDP	World Bank
Quality of local governance institutions	Processes-based measures		
	Days_Enforce	logarithm of number of days to enfore a contract	World Bank
	Startup_Rules	number of procedures to start a business	World Bank
	Econ_Democracy	The Economist's democracy index based: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture.	Economist
	Credit_Rights	score of creditor rights	Andrei Shleifer
	Prop_Rights	index of property rights	Andrei Shleifer
	Fair_Courts	index of impartiality of the judicial system	Freetheworld.com
	Gov_Corruption	index of government corruption	Andrei Shleifer
	Output-based measures		
	GDP_PC	per capita GDP	World Bank
	GDP_PC_HI	per capita GDP attributable to human institutions (not natural endowments); residual from an annual regression of per capita GDP on exports of fossil fuels, minerals, and ores.	World Bank
	Stock_GDP	total value of stocks traded as % of GDP	World Bank
	Stock_Turn	% turnover ratio of stocks traded	World Bank
	Infant_Mortality	logarithm of infant mortality	Andrei Shleifer
	Adult_Illiteracy	adult illiteracy rate	Andrei Shleifer
International power politics	*UNSC*	number of years a country has been elected to the United Nations Security Council	United Nations
	GDP_Rank	rank of GDP in current US dollars	World Bank
	Population	population in thousands	World Bank
	Area	area in thousands	Worldatlas.com
Cultural closeness to Europe	*Christian*	proportion of a country's population that is Christian	Andrei Shleifer
	Years_Free	years since independence from an EU country	Worldstatesmen.org
Network effects	*Pct_Adopt*	percentage of countries within a geographic region that have adopted IFRS as of the prior year. Regions are defined in Appendix A.	Hand Collected
	GDP_Pct_Adopt	GDP-weighted percentage of countries within a geographic region that have adopted IFRS as of the prior year. Regions are defined in Appendix A.	Hand Collected
	IFRS_Trade	percentage of exports to countries that have adopted IFRS as of the prior year	International Monetary Fund

Appendix C: Factor compositions

Effect	Factor Name	Factor from principle component analysis of:	Factor Loadings	Eigen Value	N
Value from having a shared body of accounting standards	*Platform*	*Exports*	0.842	1.418	96
		FDI	0.842		
	Platform_Chg	*Exports_Chg*	0.717	1.029	95
		FDI_Chg	0.717		
Quality of local governance institutions	*Q_Local_Gov1*	*Days_Enforce*	-0.430	1.734	95
		Startup_Rules	-0.737		
		Econ_Democracy	0.584		
		GDP_PC	0.816		
	Q_Local_Gov2	*Days_Enforce*	-0.345	1.799	95
		Startup_Rules	-0.713		
		Econ_Democracy	0.672		
		GDP_PC_HI	0.848		
International power politics	*Inter_Power*	*UNSC*	0.707	2.657	99
		GDP_Rank	0.916		
		Population	0.744		
		Area	0.875		
Cultural closeness to Europe	*Culture*	*Christian*	0.887	1.574	102
		Years_Free	0.887		

See Appendix B for variable definitions and Table 1 for a description of the sample.

Figure 1
Scatter plots of additional proxies for quality of local governance institutions on *Q_Local_Gov1* (X axis)
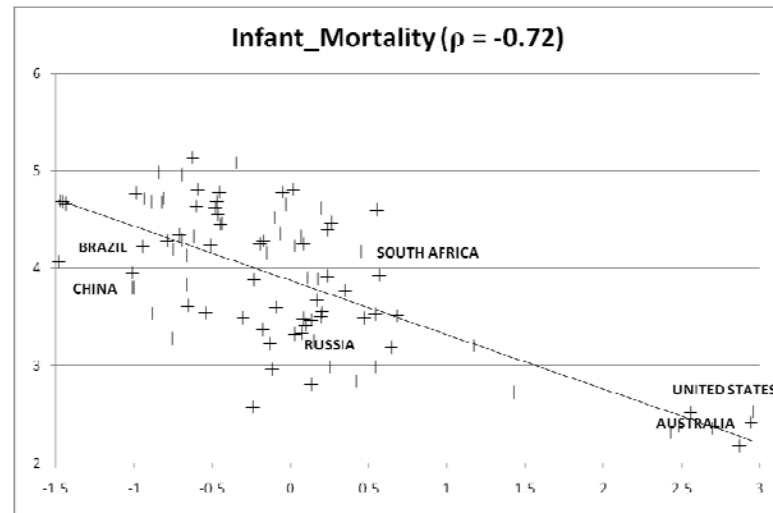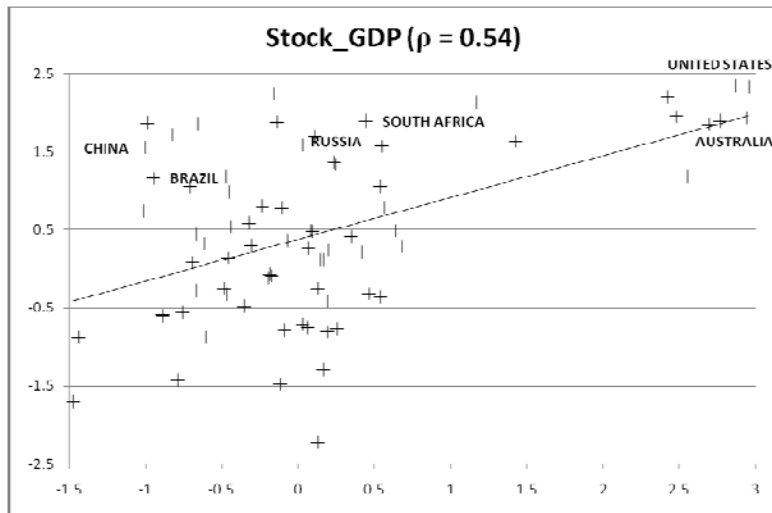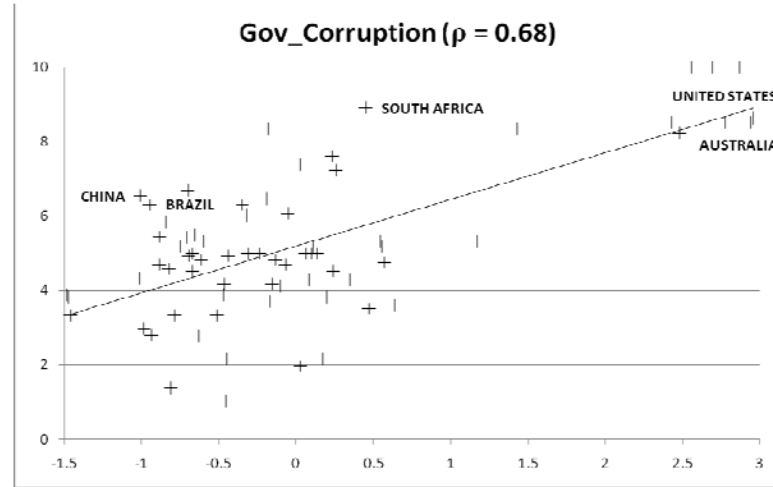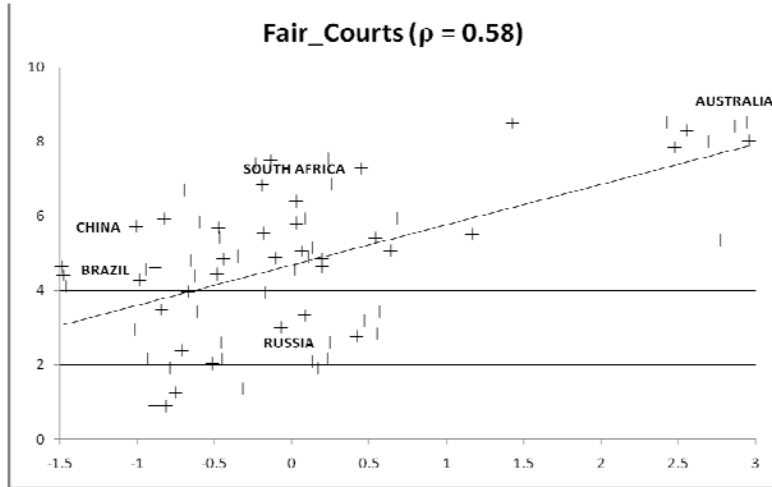
Table 1

Panel A
Distribution of sample countries by IFRS adoption status

	Adopters	Partial adopters	Non-adopters	Total
Number of countries	39	23	40	102

Panel B
IFRS adoption frequency by year

Year	Adopters	All others
2002	19	83
2003	20	82
2004	24	78
2005	34	68
2006	35	67
2007	39	63

The sample is based on the list of countries on Deloitte's IASplus.com website; it excludes European Union (EU) member states and countries without GDP data on the World Bank's WDI database. Partial adopters include those that permit (but do not require) IFRS, as well as those that require IFRS for only some companies.

Table 2 Panel A Descriptive statistics for European Union and sample (Non-European Union) countries

Primary Effect	Variable	Non-EU Countries			EU Countries		
		N	Mean	Median	N	Mean	Median
	Levels						
	Exports	100	40.231	34.914	28	53.446 **	46.547 ***
Value from having	*FDI*	98	2.894	2.025	28	5.880 **	4.191 ***
a shared body of	*FEPI*	81	0.000	0.000	7	0.000	0.000
accounting	Changes						
standards	*Exports_Chg*	99	-1.169	-0.723	28	-0.209	-0.092
	FDI_Chg	98	-0.703	-0.165	28	-4.952 *	-1.958 **
	FEPI_Chg	81	0.000	0.000	7	-0.001	-0.001
	Processes-based measures						
	Days_Enforce	97	6.268	6.339	27	6.167	6.227
	Startup_Rules	97	9.299	9.000	27	6.852 ***	6.000 ***
	Econ_Democracy	97	5.431	5.820	29	8.307 ***	8.150 ***
	Credit_Rights	86	1.837	2.000	24	2.000	2.000
	Prop_Rights	87	3.356	3.000	29	4.103 ***	4.000 ***
Quality of local	*Fair_Courts*	76	4.860	4.870	29	6.070 ***	5.855 *
governance	*Gov_Corruption*	75	5.169	5.000	24	8.193 ***	8.542 ***
institutions	Output-based measures						
	GDP_PC	100	4,805	1,570	29	17,058 ***	14,780 ***
	GDP_PC_HI	100	1,904	395	29	15,689 ***	14,119 ***
	Stock_GDP	74	18.504	1.521	29	43.683 *	17.746 ***
	Stock_Turn	63	37.387	12.700	29	58.197	39.100 ***
	Infant_Mortality	100	3.848	3.894	29	2.588 ***	2.582 ***
	Adult_Illiteracy	78	26.778	20.150	4	7.325 ***	5.700 **
	UNSC	102	4.608	2.000	30	7.200	4.000
International	*GDP_Rank*	101	59.950	59.000	29	89.310 ***	97.000 ***
power politics	*Population*	101	49,680	8,890	29	16,788 *	8,043
	Area	100	1,050,901	210,030	30	158,404 ***	88,124 **
Cultural closeness	*Christian*	102	38.425	33.750	29	70.538 ***	82.400 ***
to Europe	*Years_Free*	102	57.461	40.000	30	0.000 ***	0.000 ***

Table 2 Panel B Descriptive statistics by adoption status

Primary Effect	Variable	Non-Adopters			Full Adopters			Partial Adopters		
		N	Mean	Median	N	Mean	Median	N	Mean	Median
	Levels									
	Exports	40	36.062	28.070	38	45.954	41.795 ***	22	37.925	34.418
Value from having	*FDI*	40	2.422	1.559	36	3.664	2.334	22	2.492	1.995
a shared body of	*FEPI*	34	0.000	0.000	28	0.000	0.000 *	19	0.000	0.000
accounting	Changes									
standards	*Exports_Chg*	39	-0.918	-0.424	38	-1.998	-0.983	22	-0.180	0.213
	FDI_Chg	40	-0.396	0.097	36	-1.042	-0.668	22	-0.705	-0.162
	FEPI_Chg	34	0.000	0.000	28	-0.001	0.000	19	0.000	0.000
	Processes-based measures									
	Days_Enforce	40	6.275	6.317	35	6.164	6.236	22	6.419	6.424
	Startup_Rules	40	9.625	10.000	35	8.800	9.000	22	9.500	8.500
	Econ_Democracy	40	5.300	5.985	37	5.587	5.700	20	5.406	5.630
	Credit_Rights	39	1.410	2.000	29	2.414 ***	2.000 ***	18	1.833	2.000
	Prop_Rights	36	3.278	3.000	31	3.581	3.000	20	3.150	3.000
Quality of local	*Fair_Courts*	34	4.363	4.484	29	5.502 **	5.788 **	13	4.729	4.561
governance	*Gov_Corruption*	33	4.963	4.940	28	5.395	5.000	14	5.204	4.659
institutions	Output-based measures									
	GDP_PC	40	4,850	1,177	38	5,361	2,217	22	3,762	1,330
	GDP_PC_HI	40	2,335	266	38	1,890	591	22	1,144	631
	Stock_GDP	30	27.512	4.206	30	11.913	0.565 **	14	13.327	1.267
	Stock_Turn	28	58.693	15.850	23	19.839 **	4.100 **	12	21.308 **	17.000
	Infant_Mortality	39	3.943	4.130	39	3.690	3.609 *	22	3.958	4.264
	Adult_Illiteracy	33	34.586	32.650	28	18.201 ***	16.875 **	17	25.750	24.000
	UNSC	40	7.025	4.000	39	2.256 **	2.000 ***	23	4.391	0.000 ***
International	*GDP_Rank*	40	75.525	83.500	38	51.579 ***	48.000 ***	23	46.696 ***	40.000 ***
power politics	*Population*	40	103,427	24,962	39	9,741 **	4,014 ***	22	22,754 *	7,670 ***
	Area	40	1,384,719	353,792	38	486,562 *	97,325 ***	22	1,418,726	221,820 *
Cultural closeness	*Christian*	40	31.923	5.750	39	39.379	39.100	23	48.117	44.700
to Europe	*Years_Free*	40	67.225	47.000	39	50.000	34.000 *	23	53.130	36.000

Table 2 Panel C Descriptive statistics of factors by adoption status

Effect	Factor Name	Non-Adopters			Full Adopters			Partial Adopters		
		N	Mean	Median	N	Mean	Median	N	Mean	Median
Value from having a shared body of accounting standards	*Platform*	40	-0.187	-0.467	35	0.210	-0.127 ***	21	0.007	-0.258 *
	Platform_Chg	39	0.092	0.225	35	-0.212	-0.024 *	21	0.183	0.088
Quality of local governance institutions	*Q_Local_Gov1*	40	-0.054	-0.375	35	0.179	0.080 **	20	-0.205	-0.223
	Q_Local_Gov2	40	-0.034	-0.275	35	0.141	0.022	20	-0.179	-0.261
International power politics	*Inter_Power*	40	0.322	0.110	37	-0.293 ***	-0.355 ***	22	-0.092	-0.366 ***
Cultural closeness to Europe	*Culture*	40	-0.011	-0.532	39	-0.055	-0.162	23	0.100	-0.120

See Appendix B for variable definitions and Table 1 for a description of the sample. Throughout Table 2, ***, **, and * indicate statistical significance at the 99%, 95%, and 90% levels, respectively. In Panel A, ***, **, and * compare statistics of EU countries with those of Non-EU countries. In Panels B and C, ***, **, and * compare statistics of Full Adopter and Partial Adopter countries with those of Non-Adopter countries.

Table 3
Pearson (above the diagonal) and Spearman (below the diagonal) correlations among factors (p-values in italics)

	Platform	*Platform_Chg*	*Q_Local_Gov1*	*Q_Local_Gov2*	*Inter_Power*	*Culture*
Platform		0.2984	0.2489	0.2224	-0.1932	-0.1472
		<.0001	*<.0001*	*<.0001*	*<.0001*	*0.0005*
Platform_Chg	0.1566		0.1050	0.0842	-0.0038	-0.0293
	0.0002		*0.0150*	*0.0513*	*0.9294*	*0.4905*
Q_Local_Gov1	0.2190	0.0537		0.9802	0.2197	0.0176
	<.0001	*0.2148*		*<.0001*	*<.0001*	*0.6759*
Q_Local_Gov2	0.1770	0.0292	0.9508		0.1892	0.0392
	<.0001	*0.5006*	*<.0001*		*<.0001*	*0.3523*
Inter_Power	-0.2708	0.0207	0.1434	0.0762		0.0540
	<.0001	*0.6299*	*0.0007*	*0.0716*		*0.1933*
Culture	-0.1019	-0.0685	0.0076	0.0765	0.0495	
	0.0161	*0.1066*	*0.8562*	*0.0688*	*0.2339*	

See Appendix B for variable and factor definitions and Table 1 for a description of the sample.

Table 4

Panel A
Association of a country's IFRS adoption status in 2007 with the median adoption status of countries in its region

		IFRS Adoption Status			
		Adopters	Partial adopters	Non-adopters	*Total*
Over 50% of region has adopted	No	25	17	35	*77*
	Yes	14	6	5	*25*
	Total	*39*	*23*	*40*	*102*
	Statistic	*p-value*			
Chi-Square	5.8825	0.053			

Panel B
Association of a country's IFRS adoption status in 2007 with the median GDP weighted adoption status of countries in its region

		IFRS Adoption Status			
		Adopters	Partial adopters	Non-adopters	*Total*
Over 50% of region's GDP has adopted	No	26	12	33	*71*
	Yes	13	11	7	*31*
	Total	*39*	*23*	*40*	*102*
	Statistic	*p-value*			
Chi-Square	6.6065	0.037			

Table 4 … Cont.

Panel C
Association of a country's IFRS adoption status in 2007 with the median adoption status of its export destination countries

		IFRS Adoption Status			
		Adopters	Partial adopters	Non-adopters	*Total*
Over 10% of export destinations have adopted	No	17	13	24	*54*
	Yes	22	10	16	*48*
	Total	*39*	*23*	*40*	*102*

	Statistic	*p-value*
Chi-Square	2.2873	0.319

The sample is based on the list of countries on Deloitte's IASplus.com website; it excludes European Union (EU) member states and countries without GDP data on the World Bank's WDI database. Partial adopters include those that permit (but do not require) IFRS, as well as those that require IFRS for only some companies. See Appendix A for a list of countries by region.

Table 5

Hazard analysis of adoption decisions among non-EU countries (Counting-process method)

	(A)		(B)		(C)		(D)	
	Estimate *Std Err*	**Change in Hazard**	**Estimate** *Std Err*	**Change in Hazard**	**Estimate** *Std Err*	**Change in Hazard**	**Estimate** *Std Err*	**Change in Hazard**
Platform	0.179	16.13%	0.212	19.33%	0.110	9.58%	0.231	21.27%
	0.220		*0.183*		*0.191*		*0.232*	
Platform_Chg	0.076	6.55%	0.052	4.48%	0.069	5.98%	0.097	8.48%
	0.106		*0.118*		*0.069*		*0.119*	
Q_Local_Gov1	0.770 ***	96.38%	0.847 ***	110.12%	0.775 ***	97.12%		
	0.215		*0.230*		*0.223*			
Q_Local_Gov1^2	-0.502 ***	-28.62%	-0.498 ***	-28.43%	-0.463 ***	-26.72%		
	0.173		*0.125*		*0.161*			
Q_Local_Gov2							0.639 ***	87.30%
							0.223	
Q_Local_Gov2^2							-0.503 ***	-29.51%
							0.164	
Inter_Power	-0.975 ***	-43.98%	-0.717 ***	-34.69%	-1.027 ***	-45.70%	-0.766 ***	-36.57%
	0.289		*0.248*		*0.183*		*0.280*	
Culture	0.120	14.16%	0.131	15.58%	0.114	13.40%	0.075	8.59%
	0.089		*0.111*		*0.081*		*0.114*	
Pct_Adopt	4.088 ***	230.23%					4.266 ***	247.82%
	1.389						*1.475*	
GDP_Pct_Adopt			1.292 ***	30.44%				
			0.454					
IFRS_Trade					3.492 **	40.37%		
					1.414			
LogL	-216.147		-233.750		-194.782		-216.277	
N	530		530		425		530	

See Appendix B for variable definitions, Table 1 for a description of the sample, and Section 5.1 for a description of the regression model. Throughout, ***, **, and * indicate statistical significance at the 99%, 95%, and 90% levels, respectively.

Table 6

Hazard analysis of adoption decisions among non-EU countries (Counting-process method) including IASB specific variables

	(A)		(B)	
	Estimate *Std Err*	**Change in Hazard**	**Estimate** *Std Err*	**Change in Hazard**
Platform	0.207 *0.208*	18.89%	0.181 *0.223*	16.27%
Platform_Chg	0.074 *0.103*	6.41%	0.077 *0.106*	6.63%
Q_Local_Gov1	0.729 *** *0.228*	89.43%	0.785 *** *0.223*	98.95%
Q_Local_Gov1^2	-0.595 *** *0.205*	-32.93%	-0.476 ** *0.191*	-27.34%
Inter_Power	-1.091 *** *0.265*	-47.71%	-0.916 *** *0.327*	-41.98%
Culture	0.117 *0.096*	13.73%	0.117 *0.087*	13.76%
Pct_Adopt	4.165 *** *1.371*	237.67%	4.038 *** *1.413*	225.44%
IASB_Trustees	1.034 ** *0.405*	181.36%		
IASB_Donor			-0.308 *0.513*	-26.51%
LogL	-214.101		-215.965	
N	530		530	

See Appendix B for variable definitions, Table 1 for a description of the sample, and Section 5.1 for a description of the regression model. *IASB_Trustees* is the number of persons serving as IASB trustees for a given country in a given year. *IASB_Donor* is a dummy coded one if at least one organization from a given country in a given year contributed to the IASC Foundation. Throughout, ***, **, and * indicate statistical significance at the 99%, 95%, and 90% levels, respectively.