



Some Observations on Research on the Benefits to Nations of Adopting IFRS

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ABSTRACT

This paper has three aims: to summarise, briefly, key findings of research on the benefits of adopting International Financial Reporting Standards (IFRS); to highlight some of the more challenging aspects of this research; and to identify opportunities for future research. In order to fulfil these aims, I address five related questions: What is the role of accounting standards in an economy? What reasons have been given by governments, their advisors, and their respective business communities for switching from domestic accounting standards to IFRS? What benefits have been reported following the change to IFRS? What else will help to maximise any benefits from adopting IFRS? And how can we researchers do a better job when assessing the benefits from IFRS?

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1. Introductory Remarks

The title of this paper is “Some Observations on Research on the Benefits to Nations of Adopting IFRS”. IFRS is of course short for International Financial Reporting Standards issued by the International Accounting Standards Board.¹ The title refers to the benefits to nations. I will also be referring to research on the benefits to companies that adopt IFRS. While companies are an important medium through which nations benefit, the title reminds us that benefits to nations extend beyond those that companies experience.

I address four questions:

i . What is the role of accounting standards? This is a fundamental question to answer because it helps us to identify where the principal benefits of adopting a set of uniform, enforceable standards are most likely to be found. The perspective I take is that accounting standards are designed primarily to help deal with agency costs in financial markets.

ii . What reasons have been given when countries have committed to adopting IFRS? The decision to require companies to adopt IFRS is made by a government; and it is worth asking what governments, their advisors, and their business communities have expected to achieve as a result of that decision.

iii . What benefits have been reported? What has been the experience of countries that have introduced the requirement for at least some of their companies, typically those that are the largest? If the benefits that were sought have in fact materialised, then the standards will gain greater acceptance in those countries and elsewhere as well.

iv . How can researchers do a better job of assessing the benefits of adopting IFRS? As we shall see, there is scope to widen the set of research questions addressed by academics, and to improve substantially the methods that have been used to address them.

2. The Role of Financial Accounting Standards

Accounting records existed long before accounting standards came into being. For many years now, accounting methods have been codified for purposes other than preparing financial statements to be included in companies’ annual reports to their shareholders, for example, for income tax or statistical purposes. Accounting standards as we know them today are a relatively recent development. They initially evolved in Western countries with comparatively well-

¹ This paper adopts and builds on the schema laid out in my 2011 review paper (Brown 2011). Core ideas in that paper are repeated here, for the sake of completeness. In much of the discussion I do not differentiate between International Accounting Standards (IAS) issued by the IASC and IFRS issued by the IASB. However the reader should be aware that IFRS are regarded by standard setters as a significantly more complete set of standards and this fact can have a bearing on how particular research results should be interpreted.

developed equity markets and took the form of codes of “best” practice.² Today, they typically have the force of law, although there are major differences across jurisdictions in the extent to which practices are monitored and the law enforced.

Accounting standards turn out to be important in a well-developed equity market because they help resolve a serious agency problem in a relatively efficient manner. What is that agency problem? Here is one way to depict it.

Generally, insiders - those who are the firm’s controllers, manager-entrepreneurs, or “managers” for short - do not know as much as others do about the state of the economy as a whole, but they are usually significantly better informed than outsiders about their firm’s investment opportunities, about how effectively they, the managers, will work and the compensation they will take, and how well the firm is doing overall. However, to grow the firm, the managers may need access to more capital, which is held by others, who are outsiders.

Now outsiders do not know as much as insiders do about the firm’s investment opportunities, and they do not know how hard the managers will work, or how much they will consume in perks. But they do know managers are subject to human frailty: they will act in their own best interest, and from time to time they will take advantage of opportunities to do so. Outsiders will still supply more capital, but only if they are offered a larger slice of the corporate pie, reflecting the cost to them of not being as well informed as are the managers about what will happen to the outsiders’ money once it is received. Therein lies the agency problem: what can managers do to increase their own wealth by reducing the cost of the additional capital?

One thing the managers can do is agree to provide credible and costly information; to have their performance measured and their performance reports to outsiders certified by independent auditors. Having agreed to such a monitoring and reporting process, the managers could write a separate contract with each financier, guaranteeing to provide them with a specially tailored and audited report. But in countries where fungible rights³ are traded in active capital markets, the number of individual contracts for large corporations would be virtually limitless. So, where primary and secondary capital markets are important to an economy, uniform accounting and auditing standards will be found because they are a relatively low-cost solution to a serious agency problem: in essence, they function like legal “boilerplates”. Adopting standard practice is much less costly than a system of tailored, individual contracts between every supplier of capital (every investor and every lender) and every demander (every firm). Thus, accounting standards are fundamental in a complex financial market because they underpin how capital is allocated and corporate performance is monitored and rewarded.

Historically, financial accounting standards have differed across countries because of differences in the economic and social forces that have interacted in the past to determine those countries’ standards today. Much of the diversity in accounting standards across countries results from deeply entrenched differences in their legal and taxation systems, in the types of relationship between firms and their financiers, in inflation rates, in the stage of economic development and in the level of community education. There are of course similarities among national systems, reflecting economic ties or a common heritage (Meek and Saudagaran (1990),

² On this view, financial accounting standards, like the law more generally, are community responses to individual initiatives.

³ Fungible rights are rights that are treated as perfect substitutes, such as the rights attached to a unit of common stock issued by Sony Corporation.

Ramanna and Sletten (2012)).

A corollary argument has long been noted. International accounting standards issued by the IASB and its predecessor body (the IASC) remain heavily influenced by Anglo-American traditions. They have been framed by reference to developments in western countries with a tradition of relatively strong, legal protection of investors' rights - especially against violation of the rights of minority shareholders by controlling shareholders and of the rights of shareholders in general by managers. Requiring companies in countries with other traditions to adopt an externally-developed set of accounting standards - such as IFRS or US GAAP - does not guarantee the same economic outcomes.

3. Why Adopt IFRS?

At the simplest level, there must be significant expected benefits to adopting IFRS because the usage of IFRS continues to spread among sovereign nations. As of October 23, 2012, for domestic listed companies in 153 jurisdictions with at least one stock exchange, IFRS in some form is required for all companies in 93, required only for some companies in 7, permitted but not required in 25, and not permitted in 28.⁴

There are many reasons why countries have adopted IFRS. For some, the demand for IFRS has been driven primarily by the funding needs of large corporations seeking access to international public equity markets, and by large financial intermediaries seeking global investment opportunities; sometimes market providers, such as the Australian Securities Exchange, have argued strongly for adoption of international accounting standards in the hope of deepening their own markets (Brown and Clinch 1998). For other countries, IFRS has been part of the price of EU membership, or of obtaining development funds from an international agency (Albu and Albu 2012).

A major impetus for the acceptance and spread of IFRS was the decision by the EU to adopt IFRS from January 1, 2005. The benefits expected for European companies from adopting IFRS were listed in an EU statement issued in Brussels on June 7, 2002. In a particularly clear statement, it said IFRS would: eliminate barriers to cross-border trading in securities; ensure companies' accounts are more reliable, transparent, and easily compared; increase market efficiency; and reduce the cost of capital. In Australia, a 1997 government discussion paper (Commonwealth of Australia 1997) said adopting IFRS would reduce the cost of capital, allow Australian companies to compete on an equal footing with companies in overseas countries, and maintain investor confidence.

Korea began to require firms to adopt IFRS in 2011. The Korea Accounting Standards Board saw several benefits flowing from adopting IFRS: promote the competitiveness of Korean companies; enhance corporate transparency; and provide expansion opportunities for Korean financial companies and for the Korean accounting industry.⁵ Some commentators suggested IFRS could reduce the so-called Korean discount, which has been variously estimated, with

⁴ <http://www.iasplus.com>; the People's Republic of China is not included in these totals. Nobes (2013) and Zeff and Nobes (2010) discuss the extent to which it may properly be claimed that a country has in fact adopted IFRS.

⁵ http://eng.kasb.or.kr/web/services/page/viewPage.action?page=eng/about/a_intro.html (updated statement, accessed March 18, 2013).

estimates as high as 4% p.a.⁶

In summary, the reasons typically given for adopting IFRS are to eliminate barriers to cross-border investing; to increase the reliability, transparency and comparability of financial reports; to increase market liquidity and the efficiency of price discovery; and to decrease the cost of capital. Other benefits, often not stated, are to gain access to standard setting expertise not available in the home country, to share the costs of standard setting and of securing compliance with accounting standards, and to increase the mobility of supply in the labour market for accounting professionals.⁷

4. What Benefits Have Been Reported in Countries That Have Adopted IFRS?

4.1 Background

Well over 100 research papers have been published already on various outcomes following the adoption of IFRS and more studies are in progress. Most academic journals require authors to “add to knowledge” for their work to be published, a question often asked by reviewers being “what does this paper contribute to the literature?” Perhaps because of the large number of papers, the wide variety of research questions and the many different research methods being used in order “to do something new”, researchers frequently have disagreed on the correct answers to specific research questions they have addressed. I will return to this observation later. Despite the diversity of methods, the vast majority of studies have been empirical in nature, with most researchers looking to share markets for indications of benefits to companies and their shareholders although some studies have also focused on debt (for example, Beneish, Miller and Yohn (2012), Florou and Kosi (2013), Kim, Tsui and Yi (2011), and Pope and McLeay (2011)). To some extent that may be a reflection of the dominant research paradigm in financial accounting, for which my colleague Ray Ball and I should perhaps take some responsibility.

While many different countries have been studied, Germany, which permitted voluntary adoption of international accounting standards by eligible companies before IFRS became mandatory in 2005, has been written about more often than any other country. Be that as it may, I do wonder to what extent the experience of German firms that chose IFRS over US GAAP, or adopted IAS voluntarily before the core set of standards known as IFRS was issued,⁸ or did not choose international standards when they could have done so, can be generalised say to countries where early adoption was prohibited (and voluntary adoption was never possible) until

⁶ The Korean discount refers to the relatively low valuations said to be placed on Korean equities. See, for example, <http://www.economist.com/node/21547255> (accessed March 5, 2013) for a discussion of the Korean discount and its causes.

⁷ Chua and Taylor (2008) argue the “inexorable rise” of IFRS also reflects the fact that IFRS “confer institutionalized legitimacy because they possess three characteristics required of a technology for global governance... (namely) sponsorship by powerful interest groups/regulators, internationality and plasticity” (p. 462). IFRS have the property of “plasticity” because they are a “principles-based set of rules that enables local customization and local translation”. US GAAP are described as lacking “plasticity” because they comprise a “more tightly specified set of rules” (p. 471).

⁸ Kevin Stevenson, Chairman of the Australian Accounting Standards Board, has remarked, consistently, that companies that adopted IAS (International Accounting Standards) should not be confused with companies that switched from domestic standards to IFRS, because of the large differences between IAS and IFRS following the development of the core standards (see also footnote 1.)

a single date, after which all listed companies were obliged to adopt IFRS.

4.2 Cross-border Investment

One benefit sought by the EU from adopting IFRS was to reduce the cost of cross-border investing. A common complaint has been that differences in accounting standards made it more difficult for financial analysts to forecast a firm's future earnings, so scholars have looked at how IFRS-adoption has affected the upwards bias in analysts' forecasts, the accuracy of their forecasts, how much they disagree about their forecasts, or the number of analysts who are following a stock. Typically it has been reported that analysts' forecasts have been more accurate since the companies, whose earnings were being forecasted, adopted international accounting standards. In a comparatively recent study, Horton, Serafeim and Serafeim (2013) considered changes in the accuracy of analysts' earnings forecasts following IFRS-adoption by both voluntary and mandatory adopters. They reported that the largest improvement (decrease in forecast errors) was for mandatory adopters and was related to the difference between the firm's earnings under domestic GAAP and under IFRS. The improvement was reported to be due both to the greater comparability between firms as a result of adopting IFRS, and the higher quality of IFRS relative to the prior standards. Another international study found analysts upgraded their buy and sell recommendations when the firm committed to applying international accounting standards in the future (Karamanou and Nishiotis 2009). We should note it need not be the case that the emphasis in IFRS on current values of assets would make it easier for analysts to forecast the future earnings of firms they follow, especially when those earnings are subject to greater volatility under IFRS.

A study is more convincing when the reason for any claimed improvement is identified. In this spirit, Chalmers, Clinch, Godfrey and Wei (2012) found the change to IFRS in Australia had resulted in more accurate earnings forecasts where reported goodwill was a larger component of the firm's assets. Improved accuracy was attributed to the introduction of regular impairment testing under IFRS. Previously, Australian standards had required the capitalisation and amortisation of goodwill, which incidentally can lead to large, irregular write-downs if businesses that were profitable when acquired later perform badly.

The removal of barriers to cross-border investment by adopting IFRS can be reflected in changes in the portfolios held by large international investors. Florou and Pope (2012) used a global database, covering the holdings of institutional investors⁹ in more than 10,000 companies in 45 countries and over the period 2003-2006, to study changes in equity ownership following the adoption of IFRS. Financial institutions such as mutual funds and superannuation funds increased their shareholdings in IFRS-adopters by 4% relative to non-adopters over two years beginning with the adoption year. The effect was noticeably stronger among investors more likely to benefit from higher quality reporting (for example, actively managed funds, and so-called growth and value investors), in countries with stronger enforcement, and where the switch to IFRS had greatest effect. It remains to be seen whether any changes of this nature are permanent. I would expect they will be seen, eventually, to have been transitory, at least to some extent, as the global information environment is further refined, for example by the continued

⁹ Their data were extracted from the Thomson Financial Ownership "quarterly data feed and include domestic and foreign holdings of mutual funds, pension funds, insurance companies, hedge funds, private equity funds, and venture capital funds" (p. 2001).

spread of IFRS, changes in corporate disclosure practices, better compliance monitoring and enforcement, and improvements in information technologies available to financial analysts and investors.

4.3 “Quality” of Accounting Numbers

Many studies have argued adopting IFRS has brought benefits in the form of higher quality financial statements,¹⁰ for which a plethora of measures have been advanced.¹¹ They include the extent to which firms are believed to engage in income smoothing, or adjust their earnings so that they beat some benchmark, or make large “discretionary” accruals when calculating earnings, or use less conservative accounting practices. When there are so many measures of “quality”, should we be surprised when the findings are mixed?

To illustrate the mixed findings, Ahmed, Neel and Wang (2013) studied a “broad” sample of companies in 20 countries where IFRS were mandatorily adopted in 2005. They reported the opposite of what IFRS-supporters would like to hear: evidence consistent with IFRS-adopting firms engaging in *more* income smoothing, and being *less* conservative in their accruals adjustments and *less* timely in recognising losses, relative to non-adopting “control” firms that were matched “on the strength of legal enforcement, industry, size, book-to-market, and accounting performance” (Abstract). While the control firms came from 15 countries, 41% were domiciled in Japan and 35% in the USA (Table 2). Interestingly, they reported their findings held in countries with stronger enforcement, proxied by the Kaufmann, Kraay and Mastruzzi (2007) “Rule of Law” score, which suggests that their enforcement mechanisms did not negate the greater flexibility in IFRS.

Earlier studies had found differently. Aussenegg, Inwinkl and Schneider (2008) employed 15 different measures of the extent of earnings management in 17 European countries. They found less earnings management in Central European countries, although there was no change for companies in the UK, Ireland or Northern Europe where enforcement is believed to be stronger. Similarly, Barth, Landsman and Lang (2008) studied a sample of firms, from 21 countries, that voluntarily adopted IAS between 1994 and 2003. They found reasonably consistent evidence that accounting quality improved after companies adopted IAS: there was less earnings management and more timely loss recognition, compared to a set of control firms in the same country that were about the same size but did not adopt either IAS or US GAAP. They also noted accounting numbers were more value-relevant for the IAS adopters. They reached a similar conclusion when the changes before and after adoption for the IAS adopters were compared with the changes for the matched firms. However, Chen, Tang, Jiang and Lin (2010) added to the confused picture. They used five measures to compare changes in accounting quality of companies in 15 European countries following adoption of IFRS, with two measures indicating accounting quality had declined (income smoothing increased, and losses were recognised in a less timely fashion) while three measures indicated quality had improved (managing earnings towards targets was less common, discretionary accruals became smaller, and accruals “quality” increased).

Without going into details, it would be fair to observe that most measures of accounting

¹⁰ See Soderstrom and Sun (2007) for an early review.

¹¹ Barth, Landsman and Lang (2008) identify several avenues by which IFRS might affect the quality of accounting numbers, some increasing and others decreasing it.

“quality” are not without their critics, particularly estimates of the incidence of earnings management and discretionary accruals (see, for example, Ball 2013). It is also fair to observe that many studies have traversed similar territory - using similar data - and their findings are not independent. It may be opportune to dig more deeply into individual companies’ financial statements and reporting practices, and the methods used by analysts when comparing investment opportunities.

4.4 Comparability

Improved comparability of financial statements is another potential benefit of adopting IFRS, but the extent to which comparability is achieved is limited by inertia in firms’ accounting policies, how much latitude firms are allowed when choosing their accounting policies under the “old” and “new” standards, and the extent of compliance, itself partly a product of the effectiveness of regulatory monitoring and enforcement in the particular jurisdictions in which the firms operate. Thus a review of 16 accounting policies employed by “blue chip” companies in the largest five stock markets that used IFRS noted that practices used before adoption of IFRS tended, where they were allowed, to continue to be used post-IFRS. This behaviour has led to “national patterns of accounting” that may limit any benefits of comparability (Kvaal and Nobes (2010), Nobes (2013)). Similarly, if IFRS were to allow more ways to account for the same underlying event than had been possible under the previous standards and if firms took advantage of these opportunities, then the kind of measure that has sometimes been used to assess comparability could lead to the conclusion that accounting numbers were less comparable after adoption of IFRS.

However, empirical studies have painted a more optimistic overall picture: comparability, according to the measures they have used, typically has increased. Barth, Landsman, Lang and Williams (2012) for example reported the adoption of IFRS improved the comparability of a firm’s results with those of US firms reporting under US GAAP, although some differences have remained. (Differences have been addressed under the joint harmonisation program of the IASB and the US standard setting body, the FASB.) Jones and Finley (2011) found, for a sample of 81,560 firm-years drawn from countries in the EU and Australia, the coefficient of variation declined after 2005 for the majority of 21 key accounting ratios. The decline was observed both within countries and within industries; similar effects were not observed over the same time period for countries that did not adopt IFRS. In another example, Yip and Young (2012) studied the effect of mandatory adoption of IFRS on comparability in 17 European countries. They had three measures of comparability, based on similarities in accounting “functions” (De Franco, Kothari and Verdi 2011), information transfers between companies (Firth 1976), and similarity in the relationship between stock price, and earnings and book values. Yip and Young reported that, according to all three measures, comparability in their post-IFRS period (2005-2007) exceeded that in the pre-IFRS period (2002-2004). Further analysis indicated that comparability increased post-IFRS among “like” firms but not among firms that were inherently “different”.

As a final observation, we should note that accounting standards of all types continue to evolve, over time, and adequate controls are needed in studies of conditions “before and after IFRS” for this fact of commercial life.

4.5 Predicting Prices and Returns

Many studies have compared the apparent “usefulness” or “value relevance” of domestic GAAP and IFRS to investors, some of which have already been mentioned. Studies of this nature usually compare some aspect of the relationship between historical returns from investing in the firm’s shares and its reported earnings, or fit an Ohlson-type model that relates the firm’s stock price to its per share book value of equity and earnings per share, and sometimes also to other information not yet formally reflected in the accounts (but possibly disclosed in the notes to the financial statements).¹² These studies are mostly extensions of the huge number of studies conducted since the 1960s of the association between equity market variables and accounting numbers of different kinds.

Results from a comparison of the various models, primarily in terms of how well they fit the data, have been mixed, with a closer fit with IFRS numbers being reported for some countries but not others. For example, Devalle, Onali and Magarini (2010) studied 3,721 companies listed on five European stock exchanges (Paris, Frankfurt, Madrid, Milan, and London), using data comprising almost 14,000 company-years over the period 2002-2007. Based on Ohlson-type panel regressions with fixed effects and structural breaks to allow for differences between the pre- and post-IFRS periods, they found earnings post-IFRS had greater explanatory power for stock prices in Spain, Italy and the UK while earnings and book value of equity per share had greater explanatory power in France, Germany and the UK. In contrast, an earlier study by Hung and Subramanyam (2007) found that, over the period 1998-2002, book value of equity played a diminished valuation role under international accounting standards than local GAAP for a sample of 80 German companies that voluntarily adopted IAS, but the importance of earnings was greater.

A common approach found in the empirical literature is to decompose accounting numbers into their “components”. For example, when the information is publicly available, earnings under IFRS can be decomposed into earnings under national GAAP and the individual items which, when aggregated, constitute the difference between earnings under national GAAP and IFRS. A British study, Horton and Serafeim (2010), is among those that have adopted this approach. They found UK GAAP-IFRS reconciliations (foreshadowed under IFRS 1, *First-time Adoption of International Financial Reporting Standards*) were value-relevant, although there was evidence managers had delayed the disclosure of bad news associated with IFRS-adoption until after the event. Goodwill impairment and deferred tax adjustments were newsworthy in that they were correlated with share market returns around the relevant announcement date. Returns may have been unrelated to other reconciliation items because they were either predictable or mutually offsetting.

The possibility firms gamed their financial statements in the transition period, as noted by Horton and Serafeim, detracts from the reliability of studies based on reconciliation items disclosed by the firms themselves. In an attempt to get a “fix” on the prevalence of this behaviour, Bentwood and Lee (2012) studied the financial statements of 457 of the largest Australian companies during the first year in which IFRS were required. They found one in six companies provided erroneous information of a material nature in their IFRS reconciliation statements and that one in 20 seemed to have “managed” their prior year’s earnings benchmark. Their results underscore the importance of adequately allowing for a period of adjustment, including learning

¹² I refer to these models as “Ohlson-type” because many of them are only loosely connected to the theoretical model in Ohlson (1995).

by the key players, when studying major changes of this nature.

4.6 Liquidity and Efficiency of Equity Markets

It is possible the adoption of IFRS signals the firm is now committed to using higher quality accounting standards, to greater disclosure and to more openness and transparency in its dealings with outside investors.¹³ If so, and if the firm honours that commitment, then its stock could be traded more actively and priced more efficiently in stock markets. Authors have interpreted that to mean its stock price should change more often, which is one among many measures of liquidity (and more appropriate to less liquid stocks), or that more of the stock's market volatility would be driven by news about the firm itself, rather than by news about other firms or about the market as a whole. In broad terms, a consistent finding is that idiosyncratic volatility has increased relative to overall market volatility, more so in countries with a reputation for stronger protection of the rights of minority shareholders and stricter enforcement of the law.

Market providers like to operate more liquid markets for obvious reasons of self-interest, which may be one reason why the Australian Securities Exchange (formerly the Australian Stock Exchange) was a consistent and strong supporter of international accounting standards long before their mandatory adoption in 2005 (Brown and Clinch 1998). And IFRS have a potentially beneficial role in fostering liquidity, provided on balance they are superior from the market's perspective. The question, then, is whether they satisfy that role. Several studies have found that they do. For example the Open Market at the Frankfurt Stock Exchange allows investors to trade in about a third of all foreign listed companies world-wide, many of which report under IFRS. Brüggemann, Daske, Homburg and Pope (2012) found the stocks of companies that adopted IFRS were subsequently traded more heavily, and especially stocks of mandatory adopters. In an early study, Leuz and Verrecchia (2000) found the volume of trading in the shares of German firms that had voluntarily switched from domestic GAAP to either to IAS or US GAAP, with their greater disclosure requirements, was greater than the trading volume of those that retained domestic GAAP, while bid-ask spreads were smaller. Similarly Gassen and Sellhorn (2006) reported the bid-ask spreads of German firms that voluntarily adopted IAS before 2005 fell by an average of 70 basis points (0.7%) and there was an average of 17 more days of price changes each year; on the other hand, their stock returns became more volatile. However, the generalizability of these results has been questioned by Christensen, Hail and Leuz (2012), who reported the liquidity effects of mandatory adoption of IFRS have been confined to five EU countries that made "substantive" changes in enforcement along with the introduction of IFRS. They also found similar liquidity effects among firms that were subject to enforcement changes but did not switch to IFRS.

We might observe that students of stock market microstructure have proposed a whole range of definitions and ways of measuring liquidity, so I for one would not be surprised if Christensen, Hail and Leuz's results, albeit based on four established measures, are contradicted by evidence based on other measures, in time.¹⁴ We might also observe that, while Christensen, Hail and

¹³ This statement may be more descriptive of firms that voluntarily adopt a "higher quality" set of accounting standards when they have the opportunity to do so.

¹⁴ Christensen, Hail and Leuz (2012) employ four liquidity measures: bid-ask spread, the proportion of days with zero returns, the "illiquidity" measure of Amihud (2002), and an estimate of round-trip transaction costs that would be incurred when buying and then selling the same stock.

Leuz urge us to be cautious about attributing increased liquidity to the change in accounting standards, we should be cautious before interpreting failure to reject the null hypothesis, typically that IFRS adoption was not accompanied by some predicted “improvement”, as meaning the null hypothesis is true.

4.7 *Cost of Capital*

The ultimate equity market benefit apparently sought by countries when adopting IFRS has been to lower the cost of capital primarily to the corporate sector, since outside suppliers of capital would not need the same level of price-protection or compensation for processing “foreign” financial information. All else equal, stockholders, present and future, and other stakeholders would benefit because the firm’s existing activities would become more valuable, future growth opportunities would become more worthwhile and some otherwise marginal projects would become economically viable. The economy as a whole would benefit from expanded employment opportunities, and so on. In that way it may be claimed that the whole nation stands to gain.

But the argument, which I have put simply, does draw a long bow since many other forces are at work and, predictably, the results have been mixed. One of the most widely-cited studies of the cost of capital, Daske (2006), found no reliable evidence the voluntary adoption of international accounting standards had led to a lower cost of capital among German companies that adopted IAS or US GAAP between 1993 and 2002. But in a wider study, Shi and Kim (2007) reported the cost of capital was lower for IAS-adopters, for a sample of more than 20,000 firm-years and 34 countries between 1998 and 2004. In another study, Karamanou and Nishiotis (2009) reported a lower cost of equity capital, evidenced by positive returns at the announcement of adoption, followed by lower long run returns after the event.¹⁵ Indeed, Li (2010) estimated, for a sample of more than 1,000 EU firms over 12 years (1995-2006), the cost of capital for mandatory adopters fell by a non-trivial 47 basis points, or about one-half of 1% annually. Can you imagine what 0.47% per annum would amount to globally, were it representative of the average benefit and all nations were to adopt IFRS?

Liquidity and the cost of capital are not unrelated; and many studies have attempted to capture equity market effects by using multiple indicators of market outcomes. In their wide-ranging study of thousands of companies in 26 countries, Daske, Hail, Leuz and Verdi (2008) found liquidity and companies’ market capitalisations increased *before* adoption. Voluntary adopters, that is, firms with stronger incentives to adopt IFRS, had benefited more, which is consistent with self-selectors having had greater incentives in the first place.

4.8 *Summary of Reported Benefits*

To summarise, the principal benefits that researchers have claimed to have found are improved comparability in accounting numbers, more accurate analysts’ forecasts, better access by financial institutions and companies to international equity markets, higher quality financial statements, more efficient pricing in equity markets, more liquid equity markets and a lower cost

¹⁵ All else equal, an unexpected and significant reduction in the cost of equity capital would raise stock prices if the market quickly reached a consensus view that it would happen. To the extent that the cost of equity capital is revealed in historical returns, a second effect would be lower stock market returns once the initial price adjustment had occurred.

of equity capital. But while the evidence does point to economic benefits, the conclusions are not uncontroversial. Furthermore, the research literature is characterised by a lack of agreement about exactly what to look for, and how, where, and when to do so.

5. The Future: How Might we Researchers do a Better Job?

There are, already embedded in my foregoing comments, a number of issues where there is ample room for improvement. In this section I will elaborate on just four of them: refining our models and the ways we operationalize the variables; sharpening the focus on enforcement; allowing for progressive learning by preparers, auditors, financial analysts and other users, and regulators; and widening the scope of questions investigated beyond the present fascination with financial (especially equity) markets.

5.1 *Refining our Research Methods*

We can refine our samples to gain deeper insights. Many studies have been conducted on Germany's experience, but as already noted the German experience is different from other countries in two substantive ways. The first and most obvious way is that some firms in Germany could choose to adopt international accounting standards (IAS or US GAAP) before the core set of IFRS was issued. Standard-setters tell us there is "a world of difference" between IAS and IFRS, and so-called early adopters were not reporting under IFRS. But even if they were, there is another more subtle difference that seems to have escaped many researchers. "Mandatory adopters" in Germany are different from "mandatory adopters" in countries that did not permit early adoption, such as the UK or Australia, in the following sense: German firms that used domestic GAAP until 2005 then switched to IFRS when it became mandatory to do so had a choice before 2005; firms in some other countries did not. The challenge is how we can we turn this simple observation to greater advantage.¹⁶

Another example might be to factor into our models the differences between "previous-GAAP" and IFRS. More could be done to develop and calibrate models that explain these differences, for example by employing data available for the transition year, although here we must try to differentiate between genuine differences and any differences occasioned by managerial opportunism in the year of change. We could then use those models to predict the differences for sample companies in other years, and to incorporate the predicted differences into our subsequent analysis.

Then we might ask, what is the cost versus benefit trade-off? Many if not most capital markets-based studies — such as studies of the relationship between stock price, earnings and book value of equity — presumably reflect private benefits net of costs, because that is what market agents would rationally price. Other studies — such as studies that compare earnings forecast errors made by financial analysts before and after the adoption of IFRS — may reflect mainly the benefits to outside users and are not expressed in terms of a monetary value to shareholders, who may gain benefits but bear costs to the company of converting to IFRS. I expect the commercial and regulatory communities would be interested to know the principal drivers of the costs separately from the benefits, including both private and public costs and

¹⁶ See Christensen, Lee and Walker (2007) for one possibility.

benefits, their economic importance, and how they vary over time. I also expect some researchers will attempt to satisfy that interest in the course of time. These are difficult issues and to the best of my knowledge there has been no real progress on that front since I first raised it some years ago.

Another possibility is to refine the variables of interest. For instance, although there are exceptions (for example, Katselas 2010), studies often use the “observed” bid-ask spread as if it were a reliable indicator of the cost of adverse selection, whereas our colleagues in finance typically prefer to decompose the spread into several components, only one of which is that cost. Another example is measures of the cost of capital, of which there is a daunting array. Additional examples are measures of “timeliness” and “accounting quality”. Much more can be done to refine these and other measures and to validate them in related settings, as a means of increasing our confidence in the correctness of the conclusions reached in studies that employ them.

Can we improve our controls for confounding factors? Some studies have investigated changes in liquidity following the adoption of IFRS, as I have already mentioned. Equity market-based measures of the benefits of IFRS are especially susceptible to the huge changes that have taken place in financial markets, as a result of amalgamations of market providers (mainly the stock exchanges), changes in the market providers’ trading platforms and protocols (for example to allow “straight through” trading by investors), the emergence of “order concentrators”, and of “dark pools” which have siphoned off large amounts of liquidity previously provided by institutional traders and added to the risk of trading on the primary (“lit”) market, opportunities to trade in complex derivatives, and the growth in high frequency (“algorithmic”) trading to exploit arbitrage opportunities that are tiny at the individual transaction level but can become highly profitable when aggregated over many transactions. These factors have had a much greater influence on stock market liquidity than the adoption of accounting standards, and they are also time-dependent. If we wish to persevere with equity market-based measures of the benefits, more must be done to add appropriate controls using whatever information may be available on the changes I have indicated—probably not much, in the case of “dark pools”!

Corporate governance is another confounding factor. Corporate governance at country and firm levels influences many decisions such as the firm’s disclosure policy, its financial policy, the quality of its accounting numbers, and its choice of auditor; and furthermore, corporate governance influences the properties of analysts’ forecasts, as well as the firm’s cost of capital (Brown, Beekes and Verhoeven 2011). While those who research corporate governance also have major hurdles to face, such as how to accommodate regulation and enforcement, we can expect the two literatures—on corporate governance and on financial accounting standards—to be more closely tied in the years ahead.

5.2 Enforcement

Nobes (2013), in an update of his 2006 paper in the same journal, examined several issues that explain systematic differences in the way IFRS are applied across countries. Among them are different national implementations of IFRS; variations in language;¹⁷ and optional treatments

¹⁷ McGregor (2012) has commented: “I recall one member of an IASC delegation, after complaining about a proposed wording, commenting that their delegation is not too concerned ‘because they will fix it in the translation’. Although said in jest, this highlights the forces that were at play in the early years of international standard setting.” (p. 226).

permitted under IFRS that allow previous cross-country differences in usage to continue after IFRS have been adopted. Beyond these national differences are differences in a firm's level of compliance with the standards that have been promulgated.

An effective, independent audit function plays a key role in establishing the credibility and reliability of accounting reports, and in attesting to the correctness of the statement that a company's financial statements "comply with IFRS". Auditors with a high level of skill and expertise, who are independent, are crucial to guiding their clients in the correct interpretation and implementation of IFRS. "Auditing the auditors" is likewise important, to ensure they fulfil their tasks. We should observe that there have been major developments in international auditing standards in recent years and they may need to be accommodated in our research designs.

Second, there is a demand for effective compliance monitoring and enforcement. In one study based on more than 100,000 firm-year observations drawn from 32 countries between 2000 and 2006, Cai, Rahman and Courtenay (2008) found that the extent of earnings management was declining over time and that it was less prevalent in countries with a stronger enforcement process. In another large cross-country study, Houqe, van Zijl, Dunstan and Karim (2012) found earnings quality had improved in countries with stronger investor protection, including enforcement, after they had adopted IFRS. They extracted country-level ratings from the 2008 edition of *The Financial Development Report of the World Economic Forum* and their measures covered the enforcement of securities law and accounting standards, judicial independence, and the protection of the rights of minority shareholders. Their sample comprised more than 100,000 firm-year observations from 46 countries between 1998 and 2007.

There is a disconcerting inconsistency between the original aims of those who led the development of international accounting standards in the early days¹⁸ and the finding that the benefits reported to have followed the adoption of IFRS have not extended to "low enforcement countries". We could take a long term view and implicitly reject the short horizon used in so many studies to measure benefits; or we could believe either that the "founding fathers" of international accounting standards worked on a false premise, or that those who committed countries to adopting international standards "got it all wrong". Another possibility is that studies have been hampered by noisy measures of the extent of a country's enforcement of accounting standards. Perhaps better measures, focused on enforcement of accounting standards in particular rather than on enforcement of the law more generally, could be developed. That question was taken up by Brown, Preiato and Tarca (2013), who developed separate measures of (1) the "quality" of public company audits and (2) the degree of accounting enforcement activity by regulators in 51 countries. In a second paper (Preato, Brown and Tarca 2013) they used the accuracy of analysts' consensus earnings forecasts, and disagreement among analysts with respect to their earnings forecasts, to compare the reliability of their proxies with five other enforcement proxies used in the accounting research literature. Preiato, Brown and Tarca concluded that their more focused measures may be useful "when seeking to distinguish between countries according to the strength of their enforcement of accounting requirements" (Abstract).

¹⁸ Warren McGregor, who for 10 years was a member of the IASB and for the previous 17 years was a staff member of the IASC, puts it this way: "Notwithstanding the IASC's objective, in the early years its role became one of developing standards for countries that either did not have a capacity to develop their own national standards or were in the formative stages of developing such a capacity" (McGregor (2012), p. 226).

5.3 Learning

Learning, manifest in progressive improvement over time, is a common finding. To illustrate, Carlin, Finch and Ford (2007) reported that, initially, there was substantial non-compliance in the early post-IFRS reports of some large Australian listed companies. When faced by complicated change in the environment, people do not fully adjust their behaviour overnight. With respect to IFRS-adoption, standard setters, companies and those who give guidance to them, auditors, shareholders, security analysts and other users of financial statements, and regulators, can all take a significant amount of time to adapt to the new standards, where the amount of time would depend on the nature and extent of the difference between “previous-GAAP” and IFRS, and the extent of training and technical support available to those affected.¹⁹ So another improvement would be to model learning over time by those who are involved with IFRS.

It will not be easy to allow for learning. Accounting standards themselves are not static: new standards are being introduced and existing standards revised frequently. Researchers, especially users of panel data, would do well to accommodate the standard setters’ “shocks” to IFRS and the process of subsequent learning by affected parties. Choosing the most appropriate time period to use when estimating the benefits from adopting IFRS involves a difficult trade-off: between one long enough to allow the effects to percolate through the system but short enough to exclude confounding factors. It reminds me of the choice of estimation period when fitting the Market Model to historical data: the longer the time period, the greater the number of data points and, other things equal, the greater the precision with which the coefficients are estimated. However, the longer the time period the more likely it is that other things are not equal, and that the true values of coefficients in the Market Model have changed. The choices have similarities although the choice of the optimal estimation period when modelling learning about a new standard is more complicated because researchers prefer to gain the first mover advantage. They may lose that advantage if they wait longer for the changes to take effect.

While others have also commented on the likelihood that short horizon studies may understate the benefits of adopting a new set of accounting standards, for example Loyeung, Matolcsy, Weber and Wells (2011), I am aware of only one working paper (Brown, Seow and Tarca 2013) that attempts to model learning explicitly; and the test for learning in that paper is based on a single attribute, namely transparency as revealed in the timeliness of price discovery.²⁰ We found, for a sample of mandatory IFRS adopters in France, Italy and Spain (countries with more to learn) and in Australia, Sweden and the UK (countries with relatively less to learn), evidence over the period 2002-2010 that firms did become progressively more transparent following IFRS adoption. We also found that companies which, before the changeover from local GAAP to IFRS, appeared to have more to learn were taking longer. However, this paper is only a first step in trying to understand a highly complex process.

¹⁹ Learning in organizations depends on a variety of factors, for example “organizational ‘forgetting,’ employee turnover, transfer of knowledge from other products and other organizations, and economies of scale” (Argote and Epple 1990).

²⁰ “Timeliness of price discovery” is used as defined by Beekes and Brown (2007): “Price discovery is the process whereby value-relevant, private information becomes impounded or reflected in a stock’s publicly-observable market price. The timeliness of price discovery refers to how quickly that process takes effect” (Abstract).

5.4 Scope of Questions Investigated

Many of the potential benefits from adopting IFRS are still to be researched. Examples are the influence of IFRS on the depth of professional skills, accounting education, labour market mobility, business opportunities for financial institutions and professional accounting firms, and better outcomes resulting from improved compliance monitoring and enforcement that have gone hand-in-hand with the adoption of IFRS. Again, to the best of my knowledge there has been little progress on some of these issues since I first raised them about three years ago.

Studies of the benefits of IFRS tend to be biased towards large companies because electronic databases do not cover the whole economy. While that sample bias is not without its methodological advantages, because there is less concern about the “quality” of corporate governance and compliance rates are higher among larger firms, it does have a disadvantage in that we know relatively little of the costs and benefits of IFRS usage by the millions of smaller listed and unlisted companies, and public sector organisations, that have adopted IFRS in some form.

The fact that only some firms chose to adopt IFRS when they could do so is a simple reminder that not all firms should be expected to benefit to the same extent from a change in accounting standards, such as the adoption of IFRS. Consistent with this observation and based on the experience of voluntary adopters in Germany, Christensen, Lee and Walker (2007) predicted and found evidence of cross-sectional variation in equity market returns consistent with their predictions for UK firms that were required to adopt IFRS in 2005. Taking a different line of approach to the same issue of diversity in the effects on companies of a switch to IFRS, Brüggemann, Hitz and Sellhorn (2013) argued in a review paper that, consistent with the literature on accounting policy choice, IFRS can materially affect contractual outcomes, which presents a number of research opportunities. Apart from these potential lines of further enquiry, we should note that developments in information systems technology, including the growing use of XBRL, have undoubtedly reduced the direct cost of producing reports under multiple reporting regimes and, as well, the cost of translating financial statements from one reporting regime to another.

Finally, what about the influence of historical and socio-economic factors? Everyone seems to agree that they play a role in determining the extent of the costs and benefits from adopting international accounting standards, but how big is that role,²¹ what form does it take, and how does it affect the time taken for any benefits to materialise?

6. Concluding Remarks

Many benefits from adopting IFRS have been claimed, especially in the form of greater comparability and higher “quality” accounting numbers, a richer information environment for financial analysts, easier access by companies to international sources of finance and by financial institutions to international investment opportunities, deeper and more efficient public equity markets, and a lower cost of capital. The wide range of these studies presents us with two

²¹ A number of studies have related aspects of culture to the adoption of international accounting standards, for example McKinnon and Harrison (1985), Ding, Jeanjean and Stolowy (2005), Askary, Yazdifar and Askarany (2008), Archambault and Archambault (2009), and Clements, Neill and Stovall (2010).

challenges: first, to reconcile conflicting findings, since the benefits are often disputed; and second, to expand the scope of our research to cover other important yet neglected areas.

That said, we must be aware that the accounting world has moved on: IFRS continue to spread among sovereign nations, which itself is evidence that influential and hopefully knowledgeable decision-makers see a net benefit. It is likely that the growth in specialised IFRS studies has peaked and that, in the future, IFRS studies will be focused more narrowly on particular accounting standards and thereby become more closely tied into the wider financial accounting literature. The research designs of IFRS studies should also evolve to accommodate, explicitly, simultaneous developments in corporate governance and regulatory oversight.

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