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Different Approaches to Corporate Reporting Regulation: How Jurisdictions Differ and Why

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Abstract

This paper discusses differences in countries' approaches to reporting regulation and explores the reasons why they exist in the first place as well as why they are likely to persist. I first delineate various regulatory choices and discuss the tradeoffs associated with these choices. I also provide a framework that can explain differences in corporate reporting regulation. Next, I present descriptive and stylized evidence on regulatory and institutional differences across countries. There are robust institutional clusters around the world. I discuss that these clusters are likely to persist given the complementarities among countries' institutions. An important implication of this finding is that reporting practices are unlikely to converge globally, despite efforts to harmonize reporting standards. Convergence of reporting practices is also unlikely due to persistent enforcement differences around the world. Given an ostensibly strong demand for convergence in reporting practices for globally operating firms, I propose a different way forward that does not require convergence of reporting regulation and enforcement across countries. The idea is to create a "Global Player Segment" (GPS), in which member firms play by the same reporting rules and face the same enforcement. Such a segment could be created and administered by a supra-national body like IOSCO.

Keywords: Accounting, Regulation, IFRS, U.S. GAAP, SEC, Standard setting, Mandatory disclosure, Political economy
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1. Introduction and Overview

Corporate reporting regulation has seen substantial changes in recent years. Many of them were in response to corporate reporting scandals and perceived shortcomings during financial crises around the world. Moreover, there has been a concerted effort to converge countries' reporting standards. But despite this effort substantial differences in countries' reporting regulation and practices remain. This paper explores these differences and the reasons why they exist as well as why they are likely to persist in the foreseeable future. My analysis and comparison is conducted at a fairly high level to emphasize that reporting regulation is a part of a country's broader institutional framework. Throughout the paper, I give special emphasis to enforcement issues because of two related reasons. First, there are still considerable differences in the enforcement systems across countries, which are unlikely to converge in the near or medium-term future. Second, many countries have chosen to adopt International Financial Reporting Standards (IFRS). Given this convergence of reporting standards, enforcement differences are going to play a (relatively) larger and more important role in shaping firms' reporting practices in the future.

This paper proceeds as follows. In Section 2, I delineate different approaches to reporting regulation by discussing various regulatory choices and the tradeoffs associated with them. I also provide a framework to explain why countries have different reporting regulations. Section 3 highlights that there are interdependencies between various regulatory choices and more generally that there are complementarities between the elements of countries' institutional infrastructures. That is, in well-functioning economies, institutional elements are chosen to fit each other. As a result of these complementarities, it is difficult, if not impossible, to attribute regulatory differences across countries to any particular set of explanatory factors. However, the

broader structure of reporting regulation can nevertheless be understood in the context of countries' institutional infrastructures. This structure is heavily influenced by the role that corporate reporting plays in the economy, which in turn likely reflects the informational and contracting needs of the key parties in that economy.

Section 4 explores differences in countries' reporting, securities and investor protection regulations empirically using descriptive cluster analysis. My analysis shows the existence of robust institutional clusters, i.e., countries that share similar institutional features. These clusters are consistent with the existence of institutional complementarities and similar to broad (and more ad hoc) categorizations that have been widely used in the literature to group countries, such as legal origin, cultural and geographical region, and country wealth. Moreover, the analysis shows that countries with a stronger reliance on external finance and arm's length transactions tend to have stronger reporting regulation (both in terms of rules and enforcement) in securities, investor protection and self-dealing laws than countries with a stronger reliance on relationships and insider governance. Consistent with prior work, I also demonstrate that reporting practices in countries with stronger regulation and enforcement tend to be more transparent based on widely used transparency (or opacity) scores.

In Section 5, I discuss the evolution of reporting regimes and hence the question of how differences in reporting regulation and practices will evolve going forward. I explain the implications of institutional complementarities for institutional change and point to the central role of enforcement differences for the global convergence of reporting practices. The main message is that convergence of reporting practices is unlikely in the foreseeable future, unless countries also converge along other institutional dimensions, which is very unlikely for many

elements, like countries' legal and enforcement systems.[1] At the same time, there appears to be a strong demand for comparability and convergence of reporting practices for globally operating firms. This demand is one of the key drivers behind the adoption of IFRS in many countries around the world. Recognizing this demand, I propose a different way forward that does not require convergence of countries' reporting regulation and enforcement systems. The idea is to create a "Global Player Segment" (GPS), in which member firms play by the same reporting rules and face the same enforcement. For many firms, the rules and the enforcement are likely to be stricter than what they face in their home countries. Such a segment could be administered by a supra-national institution, for example, IOSCO at the worldwide level, or CESR at the European level. This approach promises greater convergence of reporting practices for those firms for which there is a strong market demand for comparability than the current approach, which has mainly relied on countries mandating the adoption of IFRS. There is ample evidence suggesting that IFRS adoption alone is unlikely to yield comparable reporting around the world (e.g., Ball et al., 2003; Leuz et al., 2003; Burgstahler et al., 2006; Daske et al., 2008, 2009).

2. Different Approaches to Reporting Regulation: Theory and Basic Choices

There are many different approaches to reporting regulation and regulators face many choices in designing the corporate reporting system. This section discusses several of these regulatory choices and the tradeoffs associated with them.[2] It provides the conceptual underpinnings for this paper and therefore largely abstracts from countries' actual choices. It also provides a brief literature overview on these topics. Generally speaking, the reasons why

[1] Hail et al. (2009) reach a similar conclusion when analyzing the economic and policy factors of IFRS adoption in the U.S.

[2] This section draws heavily on an earlier survey by Leuz and Wysocki (2008) on the economic consequences of financial reporting and disclosure regulation.

regulation can be beneficial are fairly well understood in the literature. But we have far less research on the advantages and disadvantages of various forms of regulation and the process of regulation itself. For this reason, my discussion focuses on these aspects.

2.1. Why do we regulate?

The first choice that a regulator faces is the decision whether or not to regulate. As many have pointed out, the mere fact that disclosure of corporate information can have benefits to firms, such lowering their cost of capital, is not sufficient to justify a mandate because firms have incentives to voluntarily provide information for which the benefits exceed the costs (e.g., Ross, 1979). Moreover, firms could enter private contract with investors stipulating the desired disclosures. Prior work has shown that we need some friction in private contracting to justify regulation. For the most part, the rationales are not specific to reporting regulation and have been used in many other regulatory contexts, although there are context-specific versions.[3]

The literature commonly provides the following four main reasons to justify the regulation of firms' financial reporting and disclosure activities: the existence of externalities, market-wide cost savings from regulation, insufficient private (or stricter public) sanctions, and dead-weight costs from fraud and agency conflicts that could be mitigated by disclosure. These reasons are related and are sometimes combined. I briefly review these arguments below but refer the reader to Leuz and Wysocki (2008) for a more extensive discussion.[4]

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[3] Hermalin and Katz (1993) show in a general bargaining context that there are only three reasons for outside interference with private contracting: (i) the parties are asymmetrically informed ex ante; (ii) there is an externality on a third party; and (iii) the state has access to more remedies than private parties. See also Aghion and Hermalin (1990).

[4] Further discussions can be found in Ross (1979), Seligman (1983), Coffee (1984), Easterbrock and Fischel (1984), Mahoney (1995), Ferrell (2004), and Hermalin and Weisbach (2007). Hart (2009) discusses a few additional reasons such as bounded rationality or a desire to influence tastes.

The first argument is that corporate reporting of financial information creates externalities. To the extent that these externalities are positive, they provide a rationale for mandating the socially optimal level of disclosure. However, financial disclosure can also create negative externalities (e.g., Fishman and Hagerty, 1989). Moreover, the (socially) optimal level of disclosure likely is context and firm specific, and also depends on the goal of reporting regulation, making it difficult for regulators to mandate the "right" level of disclosure.

The second argument put forth to justify reporting regulation is that a mandatory regime can produce cost savings for the economy as a whole. For instance, standardization of corporate reporting can make it easier for users to process the information and to compare across firms. Similarly, a mandatory regime can save costs to firms if it requires those disclosures that almost all firms are willing to provide voluntarily (Ross, 1979). The requirement saves firms the cost of negotiating disclosures with various parties (e.g., shareholders, creditors, etc.) when the result does not vary much across firms and hence the costs of complying with a one-size-fits-all regime are relatively low. In this instance, regulation provides a low-cost standardized solution (e.g., Mahoney, 1995; Rock, 2002).

A third and closely related argument recognizes that firms often voluntarily seek commitments to a particular level of transparency, for instance, when raising outside finance. But *privately* producing a credible commitment to transparency can be very expensive and in some cases even impossible. One reason is that the penalties private contracts can impose are generally limited to monetary sanctions and that the parties face wealth constraints. In this case, the so-called judgment proof problem arises: The penalty necessary to induce the desired behavior may exceed the wealth of the contracting parties (Shavell, 1986). Thus, regulation,

which generally comes with a public enforcer and criminal penalties, could be beneficial if it allows firms to commit more credibly.

The fourth argument to justify reporting regulation is perhaps more subtle and less commonly used to justify disclosure regulation (see also Leuz and Wysocki, 2008). It recognizes that agency conflicts and the consumption of private benefits by controlling insiders can have social (or dead-weight) costs. It seems plausible that diversion activities to obtain private benefits are costly, in which case there are social losses (e.g., Burkhart et al, 1998; Shleifer and Wolfenzon, 2002). Perhaps more importantly, controlling insiders are likely to forgo profitable investment opportunities for the sake of private benefits (e.g., Shleifer and Wolfenzon, 2002). This behavior is not costly to society as long as other firms can exploit the opportunities that are left on the table. But there can be substantial social costs if other firms cannot exploit them and hence these opportunities are lost to the economy as whole. Therefore, competition and the ability of new entrants to raise capital play an important role for the extent to which the consumption of private benefits has social costs (Rajan and Zingales, 2003).[5] Here, a mandatory disclosure regime can help in two ways. First, it makes it easier for new entrants to commit to transparency so that they can raise the necessary capital to exploit opportunities forgone by the incumbents. Second, it may also make it harder for controlling insiders to consume private benefits and thus mitigate the root cause of the problem.

Clearly, reporting regulation has not only benefits but also costs. Operating a mandatory reporting regime and providing the necessary enforcement can be quite costly. Moreover, regulatory solutions are far from perfect and face many problems (e.g., Stigler, 1971; Peltzman et

[5] Competition likely also limits the extent to which controlling insiders can appropriate resources without threatening the survival of the firm.

al., 1989). One problem is that regulators are often not as well informed about the relevant cost-benefit tradeoffs as firms. Another problem is that regulation is generally created by political processes, which have many short-comings and limitations. Thus, a market failure alone is not sufficient to justify regulation. As Coase (1960) points out, competition and private contracting can address market failures as well. A solid case for regulation needs to include arguments as to why a proposed regulatory solution would *in practice* achieve better outcomes or be cheaper than a market solution. Otherwise, we fall quickly victim to the Nirvana fallacy (Demsetz, 1969). An important and often overlooked issue in this regard is the implementation and enforcement of regulation (see also Shleifer, 2005). The aforementioned benefits of regulation can only materialize if the rules are properly implemented and enforced. As a consequence, enforcement systems play a major role for reporting regulation. I discuss this in more detail below.

Overall, there seems to be a reasonable case for a mandatory reporting regime. Consistent with this view, mandatory reporting regimes are widespread around the world. However, existing reporting regimes are not necessarily optimal. In fact, it is possible that existing regimes "overshot" in their disclosure requirements. In the end, much depends on the design of the reporting regime, including the enforcement mechanisms. I therefore focus on various design choices in the remainder of this section.

2.2. Who do we regulate and what is the goal of reporting regulation?

Another important choice that regulators have to make with respect to reporting regulation is who they should regulate. Much of the reporting regulation in developed countries around the world is geared towards firms, in particular, publicly traded firms. The latter group is typically required to disclose a set of audited financial statements to investors and the general public on a

regular basis. In many countries (e.g., all EU countries), this requirement extends to private limited companies.

As much of the relevant information resides within firms, it makes sense for firms to provide certain disclosures. It pre-empts costly private information acquisition and avoids a duplication of efforts by investors, financial analysts and other information intermediaries (e.g., Diamond, 1985). Thus, it is not surprising that reporting regulation in most countries is based on the model that (publicly traded) firms provide disclosures to individual investors. Today, however, investment in publicly traded firms is largely intermediated, meaning that a large fraction of households' stock ownership has migrated to financial intermediaries such as pension funds, mutual funds, and life insurance companies. In the United States, institutional ownership rose from less than 10% in the 1930s to more than 70% today. Similar trends, albeit at different rates and levels, can be observed in other countries (e.g., Rydqvist et al., 2009). This trend naturally raises the question of whether individual investors should still be viewed as the primary user of firms' financial reports or at the center of the mandatory reporting model (Zingales, 2009). This question in turn leads us to the issue of what the goals of corporate reporting regulation are.

One goal of reporting regulation can be the protection of small and unsophisticated individual investors against better informed insiders and promoters. U.S. securities regulation was introduced in the 1930s with this goal in mind. The basic idea was that extensive disclosure requirements reign in fraudulent activities and level the playing field among investors (e.g., Brandeis, 1914; Loss and Seligman, 2001; Mahoney, 2009). However, with the trend towards financial intermediation, institutional investors dominate financial markets today. There is also an abundance of information sources. Thus, it is not obvious that corporate disclosure regulation should still focus on protecting small and unsophisticated investors (Zingales, 2009). Instead, it

might make more sense to design corporate reporting regulation with the needs of sophisticated users such as financial analysts and institutional investors in mind. However, the transformation from individual to institutional ownership has not made the protection of unsophisticated investors redundant or outdated. The problem has merely been shifted to the relationship between small investors and financial intermediaries. Today, this interface deserves more attention and it is possible that we need more extensive disclosures by financial intermediaries about their practices, rather than firms (Zingales, 2009).

Protecting small investors in the securities markets is not the only conceivable goal for reporting regulation. An important goal of reporting regulation in many Continental European countries is to protect creditors (including suppliers) by restricting dividends and other payments from a corporation to residual claimants (e.g., owners, tax authorities).[6] In these economies, current and retained earnings play a major role in determining how much a corporation can pay out in dividends or has to pay in taxes. In this case, the role of earnings is not to inform investors about a firm's economic performance but to determine a distributable profit and, more generally, to facilitate debt contracting. In fact, even in the U.K. and the U.S., the development of accounting practices is very closely linked to the role of accounting in debt contracting and, in particular, in dividend restrictions (e.g., Watts, 1977; Watts and Zimmerman, 1986; Leuz et al., 1998; Kothari et al., 2009).

In many countries, an important goal of financial regulation more broadly is to preserve the stability of the financial system and investors' confidence in financial markets.[7] Disclosure requirements obviously play a role in achieving this broader goal as well. As a result, reporting

[6] See, e.g., Leuz and Wüstemann (2004) for Germany.

[7] For instance, the U.K.'s Financial Services and Markets Act sets out four statutory objectives: market confidence, public awareness, consumer protection, and reduction of financial crime. See also Jackson (2006).

regulation generally serves multiple (overlapping) goals. Generally, the goals can and do differ across countries. Their choice is likely driven by the role of corporate reporting in the economy, which in turn depends on many other institutional and market factors, such as the structure of the capital markets and the legal system. However, a reasonable conjecture is that, in well-functioning economies, the reporting system is geared towards satisfying the informational and contracting needs of the key parties in the economy, as this focus generates transaction costs savings (and is also plausible from a political economy point of view). The identity of these key parties can obviously differ across countries, as can the channels through which these needs are satisfied – public disclosure is only one of them.

2.3. Who should regulate and at what level?

In designing reporting regulation, we also need to decide who should regulate (or set the standards). Reporting regimes can be created privately, e.g., by a professional standard setter or an exchange via a listing agreement, or by a public regulator via a mandate, or by the judiciary and a law. Private standard setters could be viewed as closer to a market solution, offering expertise in complicated technical matters, and generally set up to be independent in an attempt to reduce political influence. But they lack investigative and enforcement powers that public regulators are generally endowed with.

A closely related decision is at what level reporting regulation takes place. It is conceivable to create reporting regimes at the exchange, state, country or at a supranational level. Obviously, these choices can be combined. For instance, a country could mandate corporate reporting by law, create a public regulator for oversight and enforcement, but leave the creation of specific reporting rules to a private standard setter. This is essentially the U.S. model for reporting regulation. But other models are conceivable, and exist around the world.

In general, regulating at a higher level (e.g., country) generates larger benefits from standardization and exploits network externalities. This is one of the reasons behind the push towards IFRS around the world (e.g., Waehrisch, 2001). Regulating at a lower level (e.g., exchange) allows more fine-tuning to needs of firms and investors, and hence avoids the problems of a one-size-fits-all approach (e.g., Bushee and Leuz, 2005). Regulation at a lower level (e.g., state or exchange) can also facilitate competition among regulatory regimes (e.g., Mahoney, 1997; Choi and Guzman, 1998; Romano, 1998 and 2001; Huddart et al., 1999; Sunder, 2002). Regulatory competition requires that firms are free to choose among regimes, as otherwise competition is severely limited. But even then competition among regulatory regimes faces serious limitations (Fox, 1999; Coates, 2001; Rock, 2002). One issue is that a firm's regime is typically chosen by managers, and not by shareholders, which implies competition may be hampered by agency problems. Another issue is that competition among regimes can provide incentives to be lenient when it comes to enforcing rules. This concern arises in particular when exchanges compete for listings (e.g., Kahan, 1997; Gadinis and Jackson, 2007; but see also Huddart et al., 1999). Moreover, exchanges and private standard setters typically have limited investigative powers and do not have the power to impose criminal penalties if their rules are violated. Exchanges can expel or delist firms, which can be a significant threat or sanction, but as discussed in Section 2.1 access to criminal penalties could be one reason to have regulation in the first place.

A way to maintain access to criminal penalties and centralized enforcement but to fine-tune the rules to particular firms is to introduce a system of scaled regulation with multiple tiers. Such a system could, for instance, include three tiers: a premier segment, a standard segment, and a segment for smaller growth firms (see also Leuz and Wysocki, 2006). The premier

segment would have the most onerous reporting requirements, while the other two segments would offer exemptions and less stringent requirements. The regulator could let firms opt into these segments or could assign firms to these segments based on certain criteria, e.g., the perceived benefits from stricter reporting regulation.[8] Germany's Deutsche Börse offers a two-tier structure for the same exchange and within the German enforcement system. The various "new markets" or "alternative markets" around the world (such as London's Alternative Investment Market) are examples of market segments offering reporting regulation geared towards smaller growth firms.

It is important to recognize that even if firms are not given an explicit choice among regulatory regimes, they still have many (implicit) choices and can respond to the imposition of regulation. For instance, firms can go private, raise money from an unregulated market, or choose not to go public. Such avoidance strategies can impair the effectiveness of regulation or can lead to unintended consequences.[9] Thus, understanding firms' potential responses and their avoidance strategies is crucial when designing and evaluating reporting regulation.

These issues become even more complicated in international securities markets. Here, the regulations of various countries interact with each other (e.g., Stulz, 2009). The liberalization and globalization of financial markets has given firms more ways to respond to home-country regulation, to attract capital from foreign investors and to "opt into" stricter foreign regulatory regimes. For instance, firms can cross-list in another country to subject themselves to (stricter) foreign regulation in order to overcome regulatory, institutional, or other constraints in the home country and to reassure outside investors. This is the basic idea behind the so-called bonding

[8] In Section 4, I discuss how this concept could be implemented at the international level and with respect to IFRS reporting.

[9] The studies by Jarrell (1981), Bushee and Leuz (2005), Leuz et al. (2008) provide examples.

hypothesis advanced by Coffee (1999) and Stulz (1999) to explain why many firms, particularly from emerging market economies, have sought cross-listings on U.S. exchanges. U.S. securities laws give stronger rights to outside investors and require more extensive disclosures than many other countries. Perhaps more importantly, the SEC and U.S.-style private securities litigation enforce these rules more strictly than other countries (Coffee, 2007). The cross-listing literature shows that there are firms that voluntarily seek stricter regulation and that investors reward such behavior.[10] But it also demonstrates that not all firms (or controlling insiders) find stricter commitments beneficial (e.g., Leuz and Oberholzer-Gee, 2006; Doidge et al., 2009b). The cross-listing literature also illustrates my point that firms have regulatory choices even if the (home-country) regime does not explicitly provide them.

2.4. What information should be reported and how much discretion do firms have?

A key design choice, and typically the most debated issue, concerns what information firms (or financial intermediaries) should actually report and how the information should be reported. This issue has explicitly or implicitly been the motivation for decades of accounting research, and it is obviously beyond the scope of this paper to discuss specific reporting or disclosure rules. However, it is worth pointing out that the question of what firms should report ties closely into the question of why regulation is beneficial in the first place. If the underlying rationale for regulation is to create cost savings by mandating a standardized solution that is close to what firms would be willing to provide in private contracts, then the rules should focus on general-purpose information that is likely useful for many different contracts. If the underlying rationale

[10] Consistent with the bonding hypothesis, empirical studies show that foreign firms with cross listings in the U.S. raise more external finance, have higher valuations, a lower cost of capital, more analyst following and report higher-quality accounting numbers than their foreign counterparts (e.g., Reese and Weisbach, 2002; Lang et al. 2003a and 2003b; Doidge et al., 2004 and 2009a; Bailey et al., 2006; Hail and Leuz, 2009).

is based on dead-weight costs from fraud and agency conflicts, the rules should focus on information that aids in the detection of fraud or is useful in assessing agency conflicts or in monitoring insiders.

Furthermore, it is important to recognize that mandating disclosures has costs. There are the direct costs of producing, disseminating and verifying the information. In addition, there can be indirect costs because disclosures to capital market participants can also be used by other parties (e.g., competitors, labor unions, regulators, tax authorities, etc.). For example, detailed information about line-of-business profitability can reveal proprietary information to competitors (e.g., Verrecchia, 1983; Wagenhofer, 1990; Feltham et al., 1992). Mandating all firms to provide the same information likely dampens proprietary costs because then firms not only give information to their competitors but also obtain information from them. But it is clear that there are limits to what regulation should compel firms to provide. Full disclosure would ultimately destroy firms' incentives to innovate and threaten their very existence.

An important choice in designing reporting regulation is the degree to which the rules provide discretion to firms. The accounting literature has pointed out that discretion is a double-edged sword. On one hand, discretion makes the application of reporting regulation less costly for firms. Moreover, it allows corporate insiders to convey private information that resides within the firm and to adapt reports so that they better reflect the underlying economic reality. On the other hand, discretion can be used opportunistically. For instance, corporate insiders could use reporting discretion to hide poor economic performance, achieve certain earnings targets, or avoid covenant violations. Given insiders' information advantage, it is difficult to constrain such behavior. As a result, how firms use discretion built into the reporting rules largely depends on insiders' reporting incentives. These incentives are shaped by many factors,

including capital market forces, corporate governance and countries' institutional factors (e.g., Ball et al., 2003; Burgstahler et al., 2006). Thus, the optimal level of discretion built into reporting regulation is likely a function of a country's institutional infrastructure, i.e., not independent of other elements in the infrastructure.

2.5. How are the rules enforced?

An important regulatory choice that is often given less attention than the design of the rules is the question of how the rules are enforced. This question comprises deciding who enforces the rules (e.g., contracting parties, independent third party, public enforcer), how compliance is monitored (e.g., regulator reviews firms' filings like the SEC does) and what penalties and sanctions are available in case of a violation (e.g., monetary, non-monetary, criminal penalties).

As always, there are various tradeoffs among these choices. For instance, when enforcement is left to the contracting parties, well-functioning courts are of central importance. When enforcement is delegated to a third party such as an auditor or to a public enforcement agency, the incentives of the enforcer and the question of who monitors the monitor become central issues. Emphasizing the role of enforcement, Djankov et al. (2003) and Shleifer (2005) have put forward an enforcement theory of regulation. The premise of this theory is that all strategies to implement a socially desirable policy are imperfect and that optimal institutional design involves a tradeoff between imperfect alternatives. As a result, implementation and enforcement play a central role for the success of regulation.

Surprisingly, the accounting literature has given less attention to the issue of enforcement, despite the fact that enforcement is critical to the proper application of the accounting rules.[11] However, there is a growing literature on the role of enforcement differences across countries for financial market outcomes and also accounting quality (e.g., La Porta et al., 1997, 1998, 2006; Leuz et al. 2003; Burgstahler et al., 2006). In fact, Coffee (2007) argues that such enforcement differences do a better job explaining differences in financial development, market valuations and the cost of capital across countries than formal legal rules or disclosure standards. In addition, there is a nascent literature on the relative role of public versus private enforcement for financial development (La Porta et al., 2006; Jackson, 2007; Jackson and Roe, 2008).

3. Interdependencies among Regulatory Choices

In designing reporting regulation, it is important to recognize that there are interdependencies between the various regulatory choices outlined in the previous sections. I already alluded to several of these interdependencies. Below I provide a few more examples and then introduce the concept of institutional complementarities. This concept is central to understanding *why* countries differ in their differences in (reporting) regulation across countries.

An important (and obvious) example is interdependencies between reporting rules and enforcement. As a result, reporting rules cannot be designed without considering enforcement, and vice versa. For instance, it is possible that a particular rule gives too much discretion to management and, as a result, makes the enforcement of the rule impossible or very costly. Private enforcement mechanisms, such as shareholder litigation, rely heavily on the availability

[11] An obvious exception is the large literature on auditing (see, e.g., the surveys by Francis, 2004; DeFond and Francis, 2005).

of information to outside investors, and hence benefit from disclosure requirements. The interdependencies between rules and enforcement are also at the heart of the debate about "rules versus principles" in the accounting literature. Rules-based standards tend to be more bright-line and are generally easier to apply, but they likely invite more gaming behavior (e.g., contracting around the rules) compared to principles-based standards. Principles-based standards in turn give more discretion to firms, which can enable managers to convey private information to the markets in a less costly fashion, but the discretion also allows managers to pursue ulterior reporting motives.

Another example is interdependencies between ex ante rules and ex post remedies. Recent work by Glaeser et al. (2001), Djankov et al. (2003) and Shleifer (2005) points to these interdependencies and argues that, generally speaking, there needs to be a balance between ex-ante regulation to induce desirable outcomes (or discourage malfeasance) versus ex-post remedies to penalize undesirable outcomes (or malfeasance). [12] For example, if ex-ante regulation fails to specify all contingencies or to foresee innovations in malfeasance, then parties often rely on courts to settle the matter ex post. But if the judicial "weapons" are unequal across litigants or there are agency problems with respect to the courts and judges, ex post remedies can deliver inefficient outcomes. For instance, it seems plausible that richer, better connected, and better represented controlling insiders have a stronger influence on the course of justice than defrauded, small investors (Shleifer, 2005). Ex-ante rules can mitigate this shortcoming of private enforcement because they limit court discretion (Shleifer, 2005). For example, it is easier

[12] In a related fashion, Easterbrock and Fischel (1984) and Mahoney (1995) argue that mandatory disclosure and anti-fraud provisions are complementary.

for a firm to convince a judge or jury that certain reporting behavior was appropriate when there are no specific rules of what needs to be disclosed.

3.1. Notion of institutional complementarities

Reporting regulation is one of many elements of a country's institutional infrastructure.[13] The elements of the institutional infrastructure are interdependent. To see this, consider the role of corporate reporting in financial contracting. Financial claims and control rights are often defined in accounting terms: e.g., financial ratios specify when a corporate borrower is in (technical) default or how much the borrower can pay in dividends. Investors in public equity markets use corporate reports to monitor their claims, make investment decisions or exercise their rights at shareholder meetings. Firms likely respond to these needs by various parties and, as a result, firms' reporting practices likely reflect ownership and financing patterns in a country (e.g., Ball et al., 2000; Leuz et al., 2003). Conversely, reporting standards can influence financial contracting, for example, with respect to leases, off-balance sheet financing, and equity-based compensation. Due to these interdependencies, it is reasonable to expect that corporate reporting evolves in concert with other elements of the institutional framework to facilitate, among other things, financial transactions and contracting. Put differently, in well-functioning economies, corporate reporting regulation and other elements of the institutional infrastructure are likely designed to fit and reinforce each other

In addition, there are transaction cost considerations. It is generally cheaper to provide a common set of reporting rules for many contracts than to negotiate a particular set of rules on a

[13] A country's institutional infrastructure (or framework) comprises public and private rules, conventions and organizations that shape economic behavior. This includes the legal system, banking system, taxation system, capital markets, regulatory and enforcement agencies, industry associations, standard setting bodies, etc.

contract-by-contract basis (e.g., Ross, 1979; Mahoney, 1995; Ball 2001). To capitalize on these transaction cost savings, countries are expected to design reporting requirements for the informational and contracting needs of the *key* parties (e.g., *main* suppliers of finance) in an economy. Such a focus on the key parties in the economy is also plausible because they are active and powerful participants in the political process (e.g., lobbying).

Thus, to the extent that the identity of the key parties differs across countries, reporting regulation is expected to differ across countries. Put differently, the notion of complementarities provides a powerful explanation as to why reporting regulation differs across countries and markets. It also has two further implications. First, it is unlikely that there is a reporting regime that is optimal for all countries around the world. The net benefits of high-quality corporate reporting likely vary significantly across countries, and forcing certain disclosures can impose substantial costs on firms. Thus, regulators and standard setters need to carefully weigh the confluence of costs and benefits of reporting regulation to firms, investors, and other parties in the economy.

Second, the notion of complementarities implies that we have to be careful in evaluating particular reporting requirements in isolation from other elements of the institutional framework. Seemingly successful reporting regulation in one country may not translate well to other countries. For the same reason, unilateral changes in accounting standards (such as IFRS adoption) may not yield the desired outcomes (e.g., Ball, 2006; Hail et al., 2009).

3.2. Comparison of two stylized approaches to reporting regulation[14]

To illustrate the role of institutional complementarities and their implications for corporate reporting, I consider two stylized financial systems. Following prior research, I distinguish between an 'outsider' system and a 'relationship-based' or 'insider' system (e.g., Franks and Mayer 1994; Berglöf 1997; Schmidt and Tyrell 1997; Rajan and Zingales 1998; Allen and Gale 2000). The two systems differ fundamentally in the way they channel capital to investment opportunities, how they ensure a return to investors and, most importantly for my purposes, in the way they reduce information asymmetries between contracting and financing parties.

In an outsider system, firms rely heavily on public debt or equity markets in raising capital. Corporate ownership is dispersed and largely in the hands of consumers that invest their savings directly or indirectly via mutual funds in public debt or equity markets. Thus, investors are at arm's length from firms and do not have privileged access to information. They are protected by explicit contracts and extensive rights, which in turn requires a well-functioning legal system (La Porta et al., 1998). In such a system, corporate reporting and disclosure is crucial to resolve information asymmetries among firms and investors. It enables investors to monitor their financial claims and to exercise their rights. Thus, the reporting system is expected to focus on outside investors. Its goal is to ensure that outside investors are reasonably well informed and, hence, willing to invest in the public debt and equity markets. Put differently, in an outsider system, there is a strong demand for transparent reporting (e.g., Ball et al., 2000; Bushman et al., 2004; Burgstahler et al., 2006).

[14] This section borrows heavily from a similar comparison in Leuz and Wüstemann (2004).

In contrast, in a relationship-based system, firms establish close relationships with banks and other financial intermediaries and rely heavily on internal financing instead of raising capital in public equity or debt markets. As a result, corporate ownership is concentrated and corporate governance is mainly in the hands of insiders (e.g. board members). In this system, the key parties have privileged access to information through their relationships, and information asymmetries are resolved primarily via private channels rather than public disclosure. Here, the role of corporate reporting is not so much to publicly disseminate information, but to facilitate relationship-based financing, for instance, by limiting the claims of outside shareholders to dividends, which protects creditors and promotes internal financing (e.g., Ball et al., 2000; Leuz and Wüstemann, 2004). Put differently, corporate reporting and accounting takes on other roles, such as the determination or restriction of payouts, because insiders have privileged access to information through their relationships and hence do not rely on public disclosure. Thus, the key contracting and financing parties are already reasonably well informed. Outsiders may face a lack of transparency but opacity is an important feature of the system because it protects relationships from the threat of competition (e.g. Rajan and Zingales 1998).

This comparison is clearly stylized and not meant to describe the reporting system of a particular country. In fact, most countries fall somewhere between these two extremes. The point of this comparison is to illustrate the notion of complementarities and their role in explaining *why* reporting regimes differ across countries. This simple comparison also illustrates that it is important to adopt a broader perspective when evaluating the overall performance of reporting systems. In relationship-based economies, the goal of corporate reporting is likely not to publicly disseminate information and hence institutional comparisons along this dimension can be misleading. A more complete assessment should include private information channels

and contracting roles of corporate reporting. In this regard, it is important to note that commonly used dataset describing features of countries' reporting systems focus primarily on disclosure and public information channels.

4. Different Approaches to Reporting Regulation: Descriptive Evidence

As Section 3 explains, countries are expected to differ in their regulatory approaches to corporate reporting given the many institutional differences across countries. In this section, I provide basic descriptive evidence and simple empirical analyses illustrating these differences. I draw on prior empirical studies creating and using various proxies for countries' institutional features, in particular, the work by La Porta et al. (1997, 1998, and 2006) and Djankov et al. (2008). Given the topic of my paper, I focus on variables that broadly describe countries' approaches to securities regulation and investor protection and, in particular, the reporting requirements and enforcement mechanisms embedded in these regulations.

4.1. Descriptive statistics on countries' regulatory regimes

Table 1 summarizes institutional data for 49 countries around the world. These data were created or updated in the 2000s. The first four columns describe the origin of a country's legal system, its assignment to a cultural group based on cultural variables and geographic considerations (Licht et al., 2007), a binary classification into developed and emerging capital markets, and the per-capita GDP in the year 2000.

The next three variables describe a country's securities regulation. Based on answers to an extensive questionnaire distributed to security-law attorneys in 49 countries, La Porta et al. (2006) construct three scores capturing the nature and enforcement of rules governing security issuance. Each score ranges from zero to one with higher values indicating more extensive

requirements or stricter enforcement: (1) the first score captures disclosure requirements at the country's largest stock exchange in securities offerings covering the prospectus, directors' compensation, ownership structure and inside ownership, related-party transactions and contracts; (2) the liability standard index captures procedural difficulties in recovering losses from the issuer, the directors and the accountants in a civil liability case; (3) the public enforcement index captures market supervision by a country's regulator, its investigative powers and the sanctions available.

As prior work shows that investor protection and corporate reporting are closely related (Leuz et al., 2003; Burgstahler et al., 2006), the next four columns contain indices describing the level of outside investor protection: (1) the revised anti-director rights index from Djankov et al. (2008) captures aggregate shareholder rights, primarily with respect to voting; (2) the second index measures the strength of private enforcement of provisions against self-dealing by insiders focusing on ex-ante control (e.g., requiring approval by disinterested shareholders and ex-ante disclosures); (3) the third index measures the strength of private enforcement of provisions against self-dealing by insiders focusing on ex-post control (e.g., periodic filings requirements and ease of proving wrongdoing); (4) the fourth index captures the strength of public enforcement of self-dealing provisions related to approval and disclosure requirements. For all four indices, higher values indicate more extensive outside investor protection.

The last two columns in Table 1 contain variables describing a country's legal system: (1) the rule of law index from Kaufmann et al. (2003) measures the overall quality of the legal

system including the courts;[15] (2) a binary variable indicating whether class-action lawsuits are available to investors.

As Table 1 illustrates, regulatory regimes differ considerably across countries. However, there are also remarkable similarities among (certain) countries and robust patterns in countries' institutional characteristics. Table 2 highlights several of these patterns. As documented by La Porta et al. (1997, 1998 and 2006) and Djankov et al. (2008), countries with an English legal origin tend to have more extensive disclosure requirements, stronger private and public enforcement of securities regulation, stronger shareholder and creditor rights, stricter private and public protection against self-dealing, and more frequently allow class-action lawsuits. The only exceptions are the public enforcement of self-dealing provisions and the rule of law index, for which countries with German and Scandinavian legal origins tend to score higher. Countries with a French legal origin tend to have the lowest scores for most of these variables. Exceptions are the public enforcement of securities regulations and the availability of class-action lawsuits.[16]

Grouping countries by cultural and geographical region produces similar insights. English-speaking countries tend to exhibit the highest scores on all variables, except public enforcement of self-dealing provisions and the overall quality of the legal system. Countries in the Far East group have relatively high scores with respect to the disclosure requirements in securities laws, anti-director rights and anti-self dealing provisions, but score much lower for public enforcement

[15] La Porta et al. (1998) provide several other variables capturing the effectiveness of the legal system. They are all highly correlated with the rule of law variable. Moreover, aggregating these proxies into a single legal quality variable generally yields similar results. See also Berkowitz et al. (2003) and Leuz et al. (2003).

[16] In interpreting these findings, it is important to keep in mind that available institutional data tends to rank countries with respect to features that are desirable for outside investors and arms' length transactions. This explains why some countries (e.g., those with English legal origin) score high on almost all characteristics. They tend to be organized as outsider economies along the lines of my discussion in Section 3. Private channels of communication among stakeholders are typically not evaluated in these institutional datasets but these channels may play a major role in insider economies.

of self-dealing provisions and the rule of law in general. Western European countries generally have weaker securities laws and rely less on disclosure to address self-dealing, consistent with the perception that they are focused on relationships rather than arms' length contracting. Latin American countries tend to exhibit the lowest scores for most institutional variables.

Interestingly, using either the legal origin or the cultural grouping, there is no clear pattern with respect to the reliance on public versus private enforcement mechanisms across different regulations. For instance, Western European countries have relatively low scores for public enforcement of securities regulation but relatively high scores for public enforcement of anti-self dealing provisions. This pattern is primarily driven by countries with German or Scandinavian legal origins. Countries with French legal origin exhibit the reverse pattern, i.e., relatively high scores for public enforcement of securities regulation. Thus, it is not necessarily the case that countries with relatively stronger public enforcement of securities laws also rely on strong public enforcement when it comes to anti-self dealing provisions.

Splitting by market development, I find that countries with developed markets exhibit higher scores on almost all institutional variables than emerging markets. The differences are particularly pronounced for the rule of law. This result is not surprising and confirms the central message of La Porta et al. (1997, 1998 and 2006). Clearly, country wealth plays an important role in this result. To illustrate, if I partition the sample into three groups based on a country's per-capita GDP, I find that wealthier countries exhibit higher scores on all variables, except public enforcement of securities laws, for which the ranking is not monotonic in country wealth.

In concluding this section, I should note that Table 1 does not contain variables that directly capture differences in reporting *practices* across countries. Given the topic of this paper, the table deliberately focuses on variables that describe the *regulatory* regime, including the

associated enforcement system. However, firms' actual reporting practices depend crucially on the extent to which the rules "on the books" are actually enforced and hence the extent to which the enforcement system actually uses available powers and penalties. In this regard, it is important to recall what the enforcement variables in Table 1 actually measure. They score countries, for instance, on the liability standards for various parties, the ease of proving wrongdoing, the investigative powers of the public supervisor, and the severity of available criminal penalties. As such, they describe the strength of countries' enforcement *system* but they do not necessarily capture actual enforcement activities or the severity of the penalties imposed (see also Jackson and Roe, 2008). I discuss this issue in more detail in Section 4.3.

4.2. Evidence on institutional clusters

Next, I turn to the question of what explains countries' regulatory choices and hence institutional patterns such as those in Table 1. The notion of institutional complementarities implies that there are combinations of institutional characteristics that are likely to be jointly observed. But what explains whether a country chooses a particular combination of institutional characteristics? This question has been heavily debated in the law and finance literature (e.g., La Porta et al., 1998; Beck et al., 2003; Berkowitz et al., 2003; Rajan and Zingales, 2003; Coffee, 2007). But it cannot be answered by a simple regression analysis. As institutional arrangements are likely jointly chosen or have jointly evolved over time, it is fraud with problems to run a regression of one institutional variable (e.g., investor protection) on another institutional variable (e.g., disclosure regulation). Such an analysis essentially treats one variable as more primitive than another, which may be justified in some cases, but in many others it is clearly not appropriate, given the joint evolution of many institutional factors and the feedback effects between them.

Similar issues arise when regressing market outcomes (e.g., ownership concentration, financial development) on legal institutions or regulatory variables. Take for instance the association between dispersed ownership and investor protection. It is clearly plausible that strong investor protection facilitates the dispersion of ownership, essentially allowing investors to hold smaller stakes and to diversify without fear of expropriation. But it is equally plausible that, in countries with more dispersed ownership, regulators are more concerned about outside investor protection, especially in financial crises, as investors are likely to play an important role in the political process (Coffee, 2007). Thus, causality could run in both directions. This example highlights the interactive nature of institutional development, which makes it difficult to attribute a combination of institutional characteristics to a particular factor or reason.[17]

Moreover, a candidate variable like legal origin may act as a summary measure for a country's approach to a number of regulatory issues and therefore could have significant explanatory power in regressions involving institutional (or country) variables. But this finding does not imply that the variable itself is indeed a causal factor. For similar reasons, it can be misleading to run "horse races" between institutional variables with respect to their explanatory power for outcomes such as countries' reporting practices or financial development.

At this point, there is no definitive answer as to why countries exhibit particular bundles of institutional characteristics but it is clear that many factors play a role, including legal, political and historical reasons (see also Malmendier, 2009). The existence of complementarities implies that countries' institutional frameworks exhibit hysteresis and path dependence. Thus, starting

[17] That said, it is sometimes possible to exploit historical variation in regulation to study the link between regulation and market outcomes. See, for instance, the analysis in Agrawal (2009) for the effects of investor protection on firms' financing decisions and investment policy.

points and historical events matter for today's institutional infrastructures, making it difficult to disentangle the determinants of the institutional clusters.

Considering these challenges, the goal of this section is more modest. It intends to illustrate the existence of institutional clusters and to demonstrate why commonly used variables (such as legal origin) yield such powerful characterizations. To do so, I follow the approach in Leuz et al. (2003) and identify country clusters with similar institutional features. This approach, while being descriptive and exploratory in nature, captures interactions among institutional factors irrespective of where they come from. These clusters can also be used to document systematic patterns in corporate reporting practices. For instance, Leuz et al. (2003, Table 3) use nine institutional variables from La Porta et al. (1997 and 1998) and perform a k-means cluster analysis of 31 countries, ex ante specifying three country clusters. These three clusters can be interpreted as follows. The first cluster is characterized by large stock markets, low ownership concentration, extensive outsider rights, high disclosure and strong legal enforcement. Thus, countries in the first cluster have institutional features that are typical for "outsider economies" as described in Section 3.2. The countries in the second and third cluster have institutional features of "insider economies" such as smaller stock markets, higher ownership concentration, weaker investor protection, and lower disclosure levels. Countries in the second and third cluster are similar on these dimensions but differ markedly in the strength of their legal systems. Thus, there are essentially two major factors in the data. One factor is the fundamental choice between an outsider system and an insider system. The other factor is the effectiveness of the legal and enforcement system. As the specific system choice is unlikely to matter much when the legal system that enforces the system is weak, there are only three clusters. The distribution of legal

origins across the three clusters shown in Leuz et al. (2003, Table 3) is consistent with the above interpretation.

In this paper, I extend the cluster analysis in Leuz et al. (2003) in two ways: First, I expand the set of countries. Second, I use an updated set of institutional variables. Given the paper's focus on differences in reporting regulation around the world, I begin with a k-means cluster analysis that includes only regulatory (plus related enforcement) variables from Table 2. Like Leuz et al. (2003), I ex ante specify three clusters. Panel A of Table 3 reports the clusters from this analysis. The first cluster contains Anglo-American countries as well as other countries with English legal origin plus Taiwan. The second cluster consists of Continental European and Scandinavian countries, Chile and two developed countries from Asia with German legal origin, namely Japan and South Korea. The third cluster comprises developing market economies from Africa, Asia and Latin America.

Next, I include three variables for capital market development along with the regulatory variables.[18] This specification is intended to capture similarities in financial market outcomes among countries and not just differences in the rules and the enforcement system. The results reported in Panel B are quite similar to those in Panel A. The main changes are that several countries from the first cluster in Panel A move to the second cluster (e.g., India, South Africa, Taiwan) or to the third cluster (e.g., Thailand) as they have less developed financial markets. That is, while these countries have rules "on the books" that are similar to the other countries in the first cluster, the capital market outcomes for these countries are more similar to those of countries in the second or third cluster, presumably indicating weaker enforcement of the rules.

[18] Whenever possible, I use variables that are close in time to the construction of the regulatory variables from Table 2. See description of Table 3 for details.

In Panel C, I add two variables measuring the transparency of firms' reporting practices to the set of regulatory and enforcement variables: (1) the CIFAR disclosure index, which measures the inclusion or omission of certain information items in firms' annual reports and (2) an updated version of the earnings management and opacity score from Leuz et al. (2003), which captures four different properties of reported earnings.[19] Both variables are available only for 37 countries. Nevertheless, the results including the two reporting practices variables are quite similar to those in Panel A using just the regulatory and related enforcement variables from Table 2. But we also see several reclassifications of countries from the first cluster in Panel A to the third cluster in Panel C (e.g., Thailand and Taiwan) and of countries from the second cluster in Panel A to the third cluster (e.g., Greece, Italy and Portugal), as they have more opaque reporting practices. These reclassifications again highlight the distinction between formal institutional design and actual outcomes and practices.

Overall, these results confirm the existence of institutional clusters with respect to securities regulation, investor protection and legal enforcement systems. Moreover, the resulting clusters resemble closely classifications by region, economic development and especially legal origin, even though these variables are *not* used in the cluster analysis. Cluster membership is fairly stable even if market outcomes and reporting practices are added to the analysis and the results do not appear particularly sensitive to the set of institutional variables. For all three panels in Table 3, the clusters fit the earlier categorization by Leuz et al. (2003) into outsider economies (cluster 1), insider economies with better legal enforcement systems (cluster 2) and insider economies with weaker legal enforcement systems (cluster 3).

[19] The updated earnings management and opacity score is computed from 1995 to 2005. It is the average of four scores as defined in Leuz et al. (2003) but computed with slight modifications. See Appendix for more details.

Obviously, these results and conclusions may hinge on the number of clusters that are ex ante specified for the k-means cluster analysis.[20] As the number of clusters is arbitrarily chosen, I repeat the analysis increasing the number of clusters (setting k to four and five) and using the same three combinations of regulatory, market outcome and reporting practice variables as in Table 3. Clearly, specifying more clusters allows finer groupings of countries. To illustrate, Table 4 presents the results specifying five clusters and using only the regulatory variables. Compared to Table 3, Panel A, the emerging market economies now populate two clusters and the fourth cluster consists predominantly of countries with French legal origin.

However, the main thrust of the analysis is the same with more clusters as before. Clusters tend to reflect legal origin, geography, and country wealth (even though these variables are not used in the analysis), which probably explains why these distinctions have been heavily used in the literature to describe countries' institutional similarities and differences. The grouping of Anglo-American (or English legal origin) countries like the U.S., the U.K., Australia and Canada into a cluster is a robust result, as is the joint grouping of many Continental European countries. The U.K. often shares the same cluster with Canada, Hong Kong, India, Malaysia, Pakistan, and Singapore, indicating the UK's influence on the institutional design of its dominions and former colonies. This is especially true if the analysis uses variables that describe the formal design of the institutional system, rather than market or reporting outcomes. There is evidence of regional and cultural similarities (e.g., Germany and Austria almost always share a cluster; countries in Asia or Latin America often form a regional cluster) as well as evidence of similarities that come with country wealth (e.g., joint groupings of developing countries).

[20] In addition, cluster analysis can be sensitive to the composition of the k starting clusters. I therefore perform sensitivity analyses using different starting clusters. The tenor of the results is similar but the final clusters can vary somewhat depending on the starting clusters chosen. See Table 3 for more details on starting clusters.

The robust grouping of countries with the same legal origin or from the same cultural region is consistent with the notion that history matters for institutional development. However, I do not claim that legal origin, geography or country wealth are causal determinants of countries' institutional infrastructures. But they are powerful summary variables that conveniently capture many institutional similarities and differences.

To conclude my institutional analysis, I examine differences in firms' reporting practices across the three institutional clusters presented in Table 3. Using the two transparency scores described earlier, I find that countries in cluster 1 have higher disclosure scores and more informative earnings than countries in cluster 2 or cluster 3 (Panel D, Table 3). Countries in cluster 2 exhibit on average higher transparency scores than countries in cluster 3. These differences are generally statistically significant and indicate that countries with stronger securities, investor protection and self-dealing regulation (and associated enforcement systems) tend to exhibit more transparent reporting practices.

4.3. Differences among countries in the same cluster: A caveat

Despite the clustering of countries documented in the previous section, I hasten to add that there are many differences between countries (in a given cluster) that are not captured by my analysis. As mentioned before, the analysis is deliberately conducted at a relatively high level to emphasize that reporting regulation is tied into the broader institutional infrastructure. But this should not mask the fact that even countries in the Anglo-American group exhibit material and

important differences with respect to reporting regulation and related institutional arrangements, especially at a more micro level.[21]

For example, the U.S. is generally viewed as having a more litigious environment than either Canada or the U.K. (e.g., Clarkson and Simunic, 1994). This difference can be important with respect to reporting regulation because of the role of shareholder litigation in enforcement. The Sarbanes-Oxley Act (SOX) and the debate about its costs to U.S. firms illustrate this interaction and, more generally, the importance of institutional fit of reporting regulation. Coates (2007) argues that SOX was quite costly for U.S. firms, not because of the internal control provisions per se, but due to its interaction with the U.S. litigation system. Litigation concerns created incentives for managers, directors and auditors to overspend on internal controls because these parties bear only a fraction of the compliance costs but share disproportionately in the adverse consequences from control deficiencies.

Another (related) example for differences between countries in the same cluster is the level of enforcement activity in securities markets.[22] Jackson (2007) shows that there are substantial differences in enforcement intensity of financial regulation across jurisdictions and that they exist even between countries in the Anglo-American cluster. The U.S. has much larger budgets and higher staffing levels than code-law countries like France, Germany or Sweden, even when adjusting by GDP or population. But U.S. budgets and staff levels are also high compared to the U.K. (although much of this difference is driven by banking supervision). The differences between the U.S. and the U.K. are more striking when looking at differences in enforcement

[21] See also Coffee (2007) and Gadinis and Jackson (2007) and their detailed institutional comparisons of securities regulation in the U.S., U.K. and several other countries.

[22] Yet another example is the "comply-or-explain" approach to corporate governance in the U.K., which is less prescriptive than the U.S. approach as it manifests, for instance, in SOX.

activities in the securities markets. Jackson (2007) demonstrates that even adjusting for market size the SEC takes substantially more enforcement actions and imposes substantially higher (monetary) penalties than the FSA in the U.K (see also Jackson and Roe, 2008). Yet, this comparison is still likely to understate actual enforcement differences between the U.S. and the U.K. because it does not account for private securities litigation and the imposition of criminal penalties, both of which tend to be more common in the U.S. (Coffee, 2007). In many ways, the U.S. appears to be a major outlier when it comes to enforcement and quite different from fellow Anglo-American countries.

One important implication of differences in enforcement activities across countries is that we have to be careful with de jure comparisons of enforcement systems and, more generally, regulation. The effect of regulation can differ substantially depending on the degree to which the rules are actually enforced (see also Mahoney, 2009). This also points to a limitation of those analyses in Section 4.2 that primarily focus on the differences in regulation and enforcement systems, rather than actual practices. However, theses analyses are merely intended to illustrate similarities in institutional design and the existence of institutional complementarities. To address this issue, I also provide results using financial market outcomes and reporting practices, both of which should reflect de facto differences in regulation.[23]

5. Evolution of Reporting Regimes and Global Accounting Convergence

So far the discussion has focused primarily on (static) differences in reporting regulation and, more generally, on institutional differences across countries. But obviously reporting regimes evolve over time. Thus, in this section, I discuss the evolution of reporting regimes.

[23] The obvious issue with using practices in regression analyses is their endogenous nature.

As noted before, there are far fewer academic studies on what drives institutional change and regulatory reform compared to work on the rationale for regulation in the first place (see also Leuz and Wysocki, 2008). Regimes often change in response to financial crises and corporate scandals but political processes clearly play an important role. It is beyond the scope of this paper to discuss all potential factors that play a role for institutional change. Instead, I focus on the implications of two concepts that are central to this paper. First, I delineate the implications of institutional complementarities for the evolution of regulatory regimes in general. Second, I discuss what the documented differences in securities, investor protection and self-dealing regulation, including the respective enforcement systems, imply for a global convergence of reporting practices, which has been a goal of many standard setters, regulators, politicians and market participants (e.g., G20 Progress Report on Sep. 25, 2009). The demand for more comparable reporting practices has been the impetus for the widespread adoption of IFRS around the world, which is one of the most significant regulatory changes in accounting history.

My main point is that the existence of institutional differences and complementarities makes a widespread convergence of reporting practices in the foreseeable future unlikely. In fact, such convergence may even be undesirable. I therefore conclude this section with a proposal for a new regulatory approach that promises to achieve convergence in reporting practices for a set of firms for which comparable reporting practices is presumably in high demand and more likely to be achievable and beneficial.

5.1. Implications of institutional complementarities for the evolution of reporting regimes

The existence of institutional complementarities has a number of important implications for the evolution of reporting regimes. First, it implies that changes in reporting regulation cannot be considered in isolation and independent of other elements of the institutional infrastructure.

Changing one element can make the system (or economy) worse off even when the element itself improves unambiguously. For instance, it is not obvious that a country is better off adopting IFRS even if we agreed that, considered in isolation, the set of IFRS is "better" than the existing (local) reporting standards. Institutional fit should be part of the consideration. Thus, it is not obvious that having a single set of accounting standards around the world is desirable or that IFRS are the "right" set of reporting standards for every country, despite the potential comparability benefits.

Second, the existence of complementarities implies that there are impediments to institutional change because in order to preserve institutional fit countries need to change (or adjust) several elements when they change one. Complementarities likely lead to path dependencies in institutional change, i.e., historical starting points matter. Given these impediments, convergence of regimes is likely to be slow and may not take place even if such convergence is desirable. Moreover, it is not obvious that regulatory competition among reporting regimes works or yields desirable outcomes.

A third implication is that even if countries harmonize their accounting standards at a given point in time (e.g., by adopting the same set of standards), it is questionable that this harmonization is stable over time. The new set of standards will be subject to the same institutional and market pressures that shaped the old standards in the first place. Thus, unless other key institutional factors converge as well, countries adopting the rules (e.g., a common set of accounting standards) are likely to drift apart over time, among other things, due to local adaptation of the rules. These forces should not be underestimated. For instance, capital market pressures and new business practices probably were the major impetus for change in U.S.

accounting standards, and more important than regulatory competition with other accounting standards around the world (Hail et al., 2009).

5.2. Institutional differences, reporting incentives and reporting convergence

Existing institutional differences in securities, investor protection and self-dealing regulation and associated enforcement systems have important implications for the convergence reporting practices. Regulators and standard setters around the world have undertaken substantial efforts to eliminate international differences in reporting standards. The development and adoption of IFRS around the world have been at the core of these efforts. The idea is that the adoption of a common set of accounting standards leads to more comparable reporting practices around the world. There is also the hope that the adoption of a set of high-quality accounting standards, like IFRS, leads to more transparent and higher-quality reporting in many countries.

While more comparable reporting (practices) can offer significant cost savings and economic benefits, recent work in the international accounting literature raises considerable doubt that these benefits will materialize as a result of worldwide IFRS adoption (see, e.g., summary in Hail et al., 2009).[24] This work emphasizes that firms' reporting practices are shaped by more than the accounting standards (or the enforcement of these standards) pointing to the importance of firms' reporting incentives as key driver of observed reporting practices and hence the quality and comparability of the reported numbers.

The starting point of this literature is the recognition that accounting standards give firms substantial reporting discretion because the application of the standards generally involves considerable judgment. For example, accounting measurements rely on management's private

[24] In addition, there are likely significant costs from convergence if institutional fit matters as discussed earlier.

information and involve an assessment of the future, which makes accounting measurements subjective representations of management's information set. It is also important to recognize that firms are given reporting discretion for a good reason (e.g., Watts and Zimmerman, 1986). Rigid reporting rules are unlikely to capture the complexities of firms' economic realities and make it harder to convey forward-looking information residing within management, which by its very nature is often less verifiable. Reporting discretion allows managers to use private information to produce reports that more accurately reflect firm performance and are more informative to outside parties. But whether managers use reporting discretion in this way depends on their reporting incentives. Managers may also have incentives to obfuscate economic performance, achieve certain earnings targets, avoid covenant violations, underreport liabilities, or smooth earnings – to name just a few. Given managers' information advantage over investors and even auditors and enforcement agencies, it is difficult to constrain such behavior. But the issue is not just a matter of proper enforcement of the accounting standards. While strict enforcement limits what managers can report, it does not eliminate the discretion built into the rules. Even in a hypothetical world with perfect enforcement, observed reporting behavior will differ as long as firms have different reporting incentives and the accounting standards offer discretion (Leuz, 2006).

Firms' reporting incentives are shaped by many country- and firm-level factors, including a country's legal institutions (e.g., the rule of law), the strength of the enforcement regime, capital market forces (e.g., the need to raise outside capital), product market competition, a firm's compensation structure, ownership and governance structure, as well as its operating characteristics (e.g., the business model or the length of the operating cycle). While we have more evidence on some factors than others, the evidence as a whole clearly supports the notion

that institutional and market factors influence observed reporting and disclosure practices (e.g., Ball et al., 2000; Fan and Wong, 2002; Leuz et al., 2003; Haw et al., 2004).[25] Moreover, we have considerable evidence that reporting practices differ considerably across firms and countries, even when firms are subject to the same accounting standards, and that differences in reporting practices can be explained by differences in factors that shape firms' reporting incentives (e.g., Ball et al., 2003; Ball and Shivakumar, 2005; Burgstahler et al., 2006; Lang et al., 2006; Daske et al., 2009).

An important implication of these findings is that the role of accounting standards is much more limited in bringing about global reporting convergence than often thought. Moving to a single set of accounting standards is not enough to produce comparability of reporting and disclosure practices, even if these standards were strictly enforced in all countries. Reporting incentives continue to vary systematically across firms, industries, stock exchanges, countries, and cultural and geographic regions.

Illustrating this point empirically, the (rank) correlation between the Leuz et al. (2003) earnings management and opacity score computed from 1986 to 1995 and the same score computed from 1996 to 2005 is 0.73, which is quite high. It is even higher (0.87) when I compute the correlation between the score from 1990 to 1999 and the score from 2000 to 2005. Thus, the rank order of countries in terms of the transparency of their reporting practices remained remarkably stable from 1990 to 2005, despite many efforts to converge firms' reporting practices since the early 1990s.[26] In fact, when I compute a rolling 10-year earnings

[25] The earnings management literature also supports the notion of reporting incentives. See Healy and Wahlen (1999) and Dechow and Skinner (2000).

[26] I recognize that, technically, countries' reporting practices can improve or converge without a change in their rank order. As a practical matter, however, this seems unlikely. I would expect the (time-series) correlation of

management and opacity score, nine (seven) out of the 10 highest (lowest) scoring countries from 1990 to 1999 are also among the 10 highest (lowest) scoring countries from 1996 to 2005, again illustrating the stickiness of firms' reporting practices (see Appendix for rankings and more details on the computation of the scores).

Based on the aforementioned arguments and evidence, convergence in financial reporting practices is unlikely unless other key factors that shape firms' reporting incentives converge as well. However, convergence of many of these other factors is very difficult to achieve. Countries' enforcement systems are an important case in point. As discussed in Section 4, they differ considerably across countries and even when enforcement systems appear to be similar in design, there can be substantial differences in enforcement intensity (or practices). Eliminating these differences, especially as they pertain to countries' legal systems, is probably much harder than agreeing to a single set of accounting standards.

In sum, true convergence in reporting practices seems far away and would require a much broader convergence of countries' institutional frameworks, which is unrealistic in the near future (and probably not even desirable). This conclusion brings me to my proposal of a new approach towards global convergence of reporting practices.

5.3. A new approach to global reporting convergence: The Global Player Segment

My proposal starts from the premise that IFRS are set to become the global accounting language but it recognizes that, for the reasons discussed in the previous section, there will be considerable heterogeneity in firms' reporting practices for years to come. IFRS offer substantial

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the scores to decrease with convergence because rank order changes become more likely as countries' practices move closer together. That said, a more rigorous analysis of whether countries' reporting practices have converged in recent years is warranted and an important issue for future research.

discretion, like any other set of accounting standards. Moreover, the principles-based nature of IFRS implies that differences in firms' reporting incentives matter greatly for observed reporting practices. As a result, differences in countries' institutional factors are likely to remain a major source of heterogeneity in reporting practices, despite the widespread adoption of IFRS around the world (see also Ball, 2006; Nobes, 2006; Hail et al., 2009). Put differently, differences in capital markets, securities regulation, investor protection, enforcement systems and economic development, just to name a few, continue to shape firms' reporting incentives, which makes comparable reporting around the globe unlikely. Supporting this conjecture, Daske et al. (2008) provide evidence that, in many countries, mandatory IFRS adoption had little impact on market liquidity or other capital market outcomes. Moreover, they show that countries' institutional differences, including legal enforcement, play a key role for the capital market effects around IFRS adoption.

My proposal also recognizes that there appears to be a substantial demand from investors, analysts and regulators for more comparable corporate reporting, especially for the so-called "global players," i.e., firms that operate and raise finance globally. Given this demand, I suggest a new approach that is more likely to yield comparable reporting practices for these firms than IFRS adoption alone. I propose to create a "Global Player Segment" (GPS) in which participating firms use the same standards (i.e., IFRS), face the same enforcement mechanisms and are likely to have similar reporting incentives. There are two core ideas behind the proposed Global Player Segment and its approach towards reporting convergence for global players.

The first core idea is to provide comparable enforcement across participating firms. Now that IFRS have been widely adopted around the world, reporting standards are no longer the

main issue.[27] Instead, we need to shift attention towards differences in the enforcement of reporting and disclosure rules, which are still quite pronounced. But even harmonizing enforcement is not going to be sufficient. If the goal is to achieve comparable reporting, we also need to reduce differences in firms' reporting incentives. Thus, the second core idea of the GPS is to exploit self-selection by letting firms opt into the segment. The GPS would provide a way for firms to convey to market and investors that they are serious about transparency because participating firms essentially commit to tough reporting regulation and enforcement. Such a commitment through joining the GPS should be attractive to firms that have an international shareholder base, raise finance internationally, operate in many countries and hence would benefit from more comparable reporting. Moreover, for firms with substantial growth opportunities and external financing needs, a commitment to transparency is important and beneficial, particularly if they come from jurisdictions with weaker institutions. This is the central message of the cross-listing literature: firms seek such commitments and markets reward them (e.g., Coffee, 1999; Stulz, 1999; Doidge et al., 2004, 2009a; Hail and Leuz, 2009).[28] If the rules and the enforcement in the GPS are strict and credible, only some firms will be willing to participate. This is an intended outcome. Self-selection is important as it implies that participating firms are likely to have relatively similar reporting incentives in the first place.

To ensure and reinforce the selection effect, firms would not automatically become part of the GPS upon application. They would have to be approved by the administrating body of the GPS. A formal approval process would allow for additional screening based on certain firm

[27] Obviously, the U.S. is still an exception. But even if the U.S. decides not to adopt IFRS or not to permit U.S. firms to use IFRS, one can argue that IFRS and U.S. GAAP are close enough so that standards are not the issue.

[28] Cross-listing in the U.S. is an alternative mechanism. However, U.S. cross-listings have been critically debated in recent years. There are concerns that private securities litigation is excessive in the U.S and that foreign firms may face new regulations that have been designed primarily with U.S. firms in mind. For this debate and some evidence see Committee on Capital Markets Regulation (2006), Doidge et al. (2008, 2009a).

characteristics (e.g., corporate governance, ownership structure), which in turn would further reduce differences in firms' reporting incentives among participating firms.

To have global reach and appeal, the GPS has to be operated by a supra-national body. One possibility is to have IOSCO create the GPS at the global level. But in principle the proposal could also be implemented at the regional level. For instance, if the goal is to achieve greater convergence of reporting practices in the EU, CESR would be a natural body to create such a segment. Another possibility is to create a new independent body that privately operates the GPS and has an oversight board with trustees.

Membership in the GPS would be organized as a private contract between the participating firm and the administrative body operating the segment. The contract would stipulate a jurisdiction should there be a legal dispute. This private contracting solution does not involve cross-listing the participating firm's stock at a particular exchange. The advantage of this arrangement is that the GPS does not compete with stock exchanges or firms' extant listings. Thus, a firm could concentrate its liquidity and trading in one place (e.g., its home-country exchange) but still be part of the segment.

In terms of rules, the GPS could impose additional disclosure requirements beyond those in IFRS. From the viewpoint of reporting incentives, disclosures about related-party transactions, compensation policies, internal controls, risk-management practices and off-balance sheet arrangements are particularly relevant and could be considered. Credible disclosure requirements in these areas should make the GPS less attractive to firms in which controlling insiders engage in investor expropriation and private benefit consumption. Such firms tend to have weaker reporting incentives (Leuz et al., 2003). Thus, additional disclosure requirements

would have the effect of further aligning the reporting incentives of participating firms.[29] Similarly, the GPS could impose governance requirements that are likely to reassure outside investors with respect to the quality of corporate reporting, such as having an audit committee or having independent directors on the audit committee.

On the enforcement side, the GPS's aim would be to harmonize the enforcement of IFRS for participating firms, despite widespread differences in legal and enforcement systems around the world. Moreover, by tightening enforcement relative to what many participating firms face in their home countries, the GPS would not only align but also improve firms' reporting incentives and provide a credible commitment to transparency, which in turn would have tangible benefits. Towards these goals, the GPS would use a number of enforcement mechanisms.

First, GPS firms would be required to use a GPS approved auditor. Not all auditors would be eligible to audit participating firms. The GPS administrating body would approve audit firms. Being an approved GPS auditor would also come with certain reporting requirements for the auditor, e.g., about key events such as new staff disciplinary actions or legal actions against the audit firm. These reporting requirements could be modeled after existing rules by the U.S. Public Company Accounting Oversight Board. Second, GPS enforcement staff would monitor the compliance with its additional disclosure (and governance) requirements. In addition, it would have the right to review firms' financial statements and disclosures as well as the right to seek further information and clarification on these documents. Firms would be required to respond to such requests for further information. Such a review would be mandatory (and not just an option) if there is no review process for financial statements in a firm's home country.

[29] Such requirements could also become an important tool to the extent that future IFRS become more of a political "compromise" as more countries adopt IFRS and try to influence the standard setting process. See Hail et al. (2009) for a discussion of the political risks in the IFRS standard setting process.

Third, the GPS contract would give GPS enforcement staff the right to on-site inspections and to seize certain documents in the event GPS staff has serious concerns about a firm's reporting practices. Fourth, the GPS would publish its enforcement actions against a participating firm. Finally, it would have the right to expel firms from the segment if they do not comply with its requirements. The last two mechanisms would essentially rely on adverse publicity and market reactions as a way to enforce GPS rules. To the extent that these enforcement mechanisms are viewed as insufficient, firms could be asked to post a monetary bond in an (interest-bearing) escrow account upon becoming a GPS member. This bond would be forfeit if a firm is expelled from the GPS or leaves the GPS after violating its rules. This arrangement would increase the commitment value of the GPS even further.

A key question is obviously how the operation of the GPS can be financed. Among other things, the GPS would need well-qualified enforcement staff in sufficient numbers to perform its monitoring and compliance role. Membership fees are an obvious source of funding. That is, GPS firms would be asked to pay an annual fee. Participating firms are the primary beneficiary and to the extent that the GPS provides a credible commitment to transparency firms should receive tangible benefits (see Leuz and Wysocki, 2008). Asking participating firms to pay for GPS membership amounts to an important "market test" and provides incentives to design and operate the GPS in a way that adds value to firms. If firms were unwilling to pay for a segment that is designed to achieve greater comparability of firms' reporting practices (and to overcome the issue of externalities), then this would be a clear sign that we need to re-think the case for global convergence of reporting practices in the first place.

However, corporate funding alone also has drawbacks. For instance, it can create conflicting interests when the time comes for the GPS staff to be tough on a particular firm.

Therefore, it will be important for the GPS to have further funding sources. There are several options. First, exchanges that list GPS member firms could pay a fee as they benefit from the certification and assurance that the GPS provides. Second, audit firms that are approved to audit GPS firms could pay an annual fee. Third, some funding could come from or via the IASC Foundation as the GPS contributes to the reputation of IFRS. Fourth, the G20 have called for more progress towards global reporting convergence. If they are serious about this goal, then they should consider providing financial support for steps in this direction. Finally, the GPS could raise royalty fees from financial service firms that use the GPS to create new products. For instance, the GPS could ask for a licensing fee when a financial firm creates an index based on securities from firms that participate in the GPS.

6. Conclusion

This paper discusses differences in countries' approaches to reporting regulation and explores reasons why they exist in the first place and why they are likely to persist. After delineating various regulatory choices and discussing the tradeoffs associated with these choices, I provide a basic framework based on the notion of institutional complementarities that helps us understand existing differences in corporate reporting and other regulation. The paper also provides descriptive and stylized evidence on regulatory and institutional differences across countries. It highlights that there are robust institutional clusters around the world.

A key message of this paper is that these clusters are likely to persist in the foreseeable future given the complementarities among countries' institutions. Another key message is that there are substantial enforcement differences around the world. An important implication of both messages is that reporting *practices* are unlikely to converge globally, despite widespread

IFRS adoption. Nevertheless, there appears to be a strong demand for convergence in reporting practices for globally operating firms. Thus, I propose a different way forward that does not require convergence of regulatory approaches across countries. The proposal is to create a "Global Player Segment" (GPS), in which firms play by the same reporting rules (i.e., IFRS), face the same enforcement and are likely to have similar incentives for transparent reporting. The GPS could be created and operated by IOSCO or other supra-national institutions. The core ideas behind this segment are twofold. First, it would provide comparable enforcement across participating firms. Second, it would exploit self-selection into the segment to align participating firms' reporting incentives. The segment should be attractive to globally operating firms that have desire to credibly signal that they are serious about their commitment to transparency.

But even if the GPS proposal is not successful, it turns the spotlight on the shortcomings of a convergence approach that relies primarily on IFRS adoption, in the face of major institutional and enforcement differences around the world. Thus, my hope is that this proposal at least contributes to a more rigorous debate about what it takes to achieve global reporting convergence.

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Table 1: Selected Institutional Characteristics by Country

					Securities Regulation				Self-Dealing				
Country name	*Legal origin*	*Cultural region*	*Developed capital market*	*Real per-capita GDP*	*Disclosure requirements*	*Liability standard*	*Public enforcement*	*Anti director rights*	*Ex-ante control*	*Ex-post control*	*Public Enforcement*	*Rule of law*	*Class-action lawsuits*
ARGENTINA	French	LA	0	11,000	0.5	0.22	0.58	2	0.33	0.35	0	0.18	0
AUSTRALIA	English	ES	1	26,000	0.75	0.66	0.9	4	0.89	0.63	0.5	2.00	1
AUSTRIA	German	WE	1	27,000	0.25	0.11	0.17	3	0	0.43	1	2.10	0
BELGIUM	French	WE	1	25,000	0.42	0.44	0.15	3	0.39	0.7	0.5	1.64	0
BRAZIL	French	LA	0	7,000	0.25	0.33	0.58	5	0.22	0.32	0.5	-0.15	1
CANADA	English	ES	1	27,000	0.92	1	0.8	4	0.33	0.95	1	2.01	1
CHILE	French	LA	0	11,000	0.58	0.33	0.6	4	0.5	0.75	1	1.33	0
COLOMBIA	French	LA	0	6,000	0.42	0.11	0.58	3	0.83	0.31	0	-0.64	1
DENMARK	Scandinavian	WE	1	28,000	0.58	0.55	0.37	4	0.25	0.68	0.75	1.97	0
EGYPT	French	ME	0	5,000	0.5	0.22	0.3	3	0.08	0.32	0	0.23	0
ECUADOR	French	LA	0	4,000	0	0.11	0.55	2	0	0.15	1	-0.66	0
FINLAND	Scandinavian	WE	1	23,000	0.5	0.66	0.32	4	0.14	0.77	0	2.13	0
FRANCE	French	WE	1	25,000	0.75	0.22	0.77	4	0.08	0.68	0.5	1.49	1
GERMANY	German	WE	1	25,000	0.42	0	0.22	4	0.14	0.43	1	1.91	0
GREECE	French	WE	0	14,000	0.33	0.5	0.32	2	0.08	0.35	0.5	0.75	0
HONG KONG	English	FE	1	27,000	0.92	0.66	0.87	5	1	0.93	0	1.66	0
INDIA	English	FE	0	3,000	0.92	0.66	0.67	5	0.33	0.82	0.5	0.23	1
INDONESIA	French	FE	0	4,000	0.5	0.66	0.62	4	0.81	0.5	0	-0.90	0
IRELAND	English	ES	1	25,000	0.67	0.44	0.37	5	0.78	0.8	0	1.86	0
ISRAEL	English	NC	0	22,000	0.67	0.66	0.63	4	0.5	0.95	1	1.08	1
ITALY	French	WE	1	22,000	0.67	0.67	0.48	2	0.17	0.68	0	0.94	0
JAPAN	German	FE	1	24,000	0.75	0.66	0	5	0.22	0.77	0	1.82	0
JORDAN	French	ME	0	4,000	0.67	0.22	0.6	1	0.17	0.16	0	0.57	0
KOREA (SOUTH)	German	FE	0	16,000	0.75	0.66	0.25	5	0.25	0.69	0.5	0.65	0
KENYA	English	AF	0	1,000	0.5	0.44	0.7	2	0.17	0.25	0	-1.02	1
MALAYSIA	English	FE	0	11,000	0.92	0.66	0.77	5	1	0.9	1	0.55	1
MEXICO	French	LA	0	8,000	0.58	0.11	0.35	3	0.19	0.15	0.5	-0.37	0
NETHERLANDS	French	WE	1	26,000	0.5	0.89	0.47	3	0.06	0.35	0	1.97	1
NEW ZEALAND	English	ES	1	20,000	0.67	0.44	0.33	4	1	0.9	0	1.99	1
NORWAY	Scandinavian	WE	1	33,000	0.58	0.39	0.32	4	0.42	0.43	1	2.01	0
NIGERIA	English	AF	0	1,000	0.67	0.39	0.33	4	0.17	0.7	0	-1.06	1

PAKISTAN	English	ES	0	2,000	0.58	0.39	0.58	4	0.17	0.65	0.75	-0.62	1
PERU	French	LA	0	4,000	0.33	0.66	0.78	4	0.25	0.65	0.25	-0.52	0
PHILIPPINES	French	FE	0	4,000	0.83	1	0.83	4	0.06	0.38	0	-0.50	1
PORTUGAL	French	WE	1	17,000	0.42	0.66	0.58	3	0.14	0.75	1	1.16	1
SINGAPORE	English	FE	1	29,000	1	0.66	0.87	5	1	1	1	2.12	0
SOUTH AFRICA	English	AF	0	8,000	0.83	0.66	0.25	5	1	0.63	0	0.30	0
SPAIN	French	WE	1	20,000	0.5	0.66	0.33	5	0.22	0.52	1	1.38	1
SRI LANKA	English	FE	0	4,000	0.75	0.39	0.43	4	0.08	0.7	0	-0.17	0
SWEDEN	Scandinavian	WE	1	25,000	0.58	0.28	0.5	4	0.17	0.5	1	1.98	0
SWITZERLAND	German	WE	1	29,000	0.67	0.44	0.33	3	0.08	0.45	0.75	2.22	0
TAIWAN	German	FE	0	19,000	0.75	0.66	0.52	3	0.42	0.71	0	0.87	1
THAILAND	English	FE	0	6,000	0.92	0.22	0.72	4	1	0.63	0	0.43	0
TURKEY	French	ME	0	6,000	0.5	0.22	0.63	3	0.33	0.52	0	0.07	0
UNITED KINGDOM	English	ES	1	25,000	0.83	0.66	0.68	5	1	0.9	0	1.93	1
UNITED STATES	English	ES	1	34,000	1	1	0.9	3	0.33	0.98	0	1.92	1
URUGUAY	French	LA	0	11,000	0	0.11	0.57	1	0.08	0.28	0.5	0.66	0
VENEZUELA	French	LA	0	7,000	0.17	0.22	0.55	1	0.08	0.1	0	-0.81	0
ZIMBABWE	English	AF	0	3,000	0.5	0.44	0.42	4	0.33	0.45	0.5	-0.73	1

The sample comprises data for 49 countries. *Legal origin* denotes the origin of the country's legal system and is taken from Djankov et al. (2008). *Cultural region* is a classification of countries into major cultural groups based on Licht et al. (2007). It is determined by a combination of culture variables and geographic considerations (AF - Africa, ES - English-speaking, FE - Far East, LA - Latin America, ME - Mediterranean, NC - Not Classified, WE - Western Europe). *Developed capital market* is a binary classification into developed and emerging markets as given in MSCI/Barra database in 2000. *Real per-capita GDP* in 2000 is based on a chained index and taken from Penn World Tables. The next three variables describe a country's securities regulation and are taken from La Porta et al. (2006). The first variable is the level of *disclosure requirements* in securities offerings. *Liability standard* equals the arithmetic mean of the liability standards for issuers, its directors, distributors, and accountants. *Public enforcement* is a summary index of several sub-indices on public enforcement of securities regulation (supervisor characteristics index, rule-making power index, investigative powers index, orders index, and criminal index). *Anti-director rights* represent an aggregate measure of minority shareholder rights. I use the revised index provided in Djankov et al. (2008). The following three variables pertain to the protection of outsiders against self-dealing by insiders and are taken from Djankov et al. (2008). *Ex-ante control* of self-dealing is the average of requirements for approval by disinterested shareholders and ex-ante disclosure. *Ex-post control* of self-dealing is the average of disclosure in periodic filings and ease of proving wrongdoing. *Public enforcement* of anti self-dealing provisions measures available fines and sanctions to the public enforcer. The *Rule of Law index* is an assessment of the overall legal quality and of law and order in the country. It is taken from Kaufmann et al. (2003). *Class-action suit availability* takes a value of 1 if class-action suit is available and a value of 0 otherwise.

Table 2: Selected Institutional Characteristics by Legal Origin, Cultural Region, Market Development and Country Wealth

	Securities Regulation				*Self-Dealing Protection*				
	Disclosure requirements	*Liability standard*	*Public enforcement*	*Anti-director rights*	*Ex-ante control*	*Ex-post control*	*Public enforcement*	*Rule of Law index*	*Class-action suit availability*
Legal origin									
English	0.78	0.58	0.62	4.22	0.62	0.76	0.35	0.80	0.67
French	0.45	0.41	0.53	2.86	0.24	0.43	0.35	0.37	0.33
German	0.60	0.42	0.25	3.50	0.19	0.58	0.54	1.60	0.17
Scandinavian	0.56	0.47	0.38	3.63	0.24	0.59	0.69	2.02	0.00
Cultural region									
Africa (AF)	0.63	0.48	0.43	3.75	0.42	0.51	0.13	-0.63	0.75
English-Speaking (ES)	0.77	0.66	0.65	4.14	0.64	0.83	0.32	1.58	0.86
Far East (FE)	0.82	0.63	0.59	4.36	0.56	0.73	0.27	0.62	0.36
Latin America (LA)	0.31	0.24	0.57	2.72	0.28	0.34	0.42	-0.11	0.22
Mediterranean (ME)	0.56	0.22	0.51	2.33	0.19	0.34	0.00	0.29	0.00
Western Europe (WS)	0.51	0.46	0.38	3.14	0.17	0.55	0.64	1.69	0.29
Capital market development									
Emerging markets	0.55	0.42	0.55	3.33	0.35	0.50	0.31	-0.01	0.41
Developed markets	0.65	0.55	0.49	3.70	0.40	0.69	0.50	1.83	0.41
Per-capita GDP for 2000									
Low	0.53	0.39	0.58	3.32	0.30	0.45	0.21	-0.37	0.47
Medium	0.59	0.52	0.43	3.44	0.39	0.63	0.44	0.96	0.38
High	0.68	0.53	0.54	3.75	0.43	0.68	0.56	1.92	0.38
Total	**0.60**	**0.48**	**0.52**	**3.50**	**0.37**	**0.58**	**0.40**	**0.82**	**0.41**

The table provides means for various regulatory variables by legal origin, cultural region, capital market development and country wealth. The sample comprises data for 49 countries. See Table 1 for the definitions of the regulatory variables. *Legal origin* denotes the origin of the country's legal system and is taken from Djankov et al. (2008). *Cultural region* is a classification of countries into major cultural groups based on Licht et al. (2007). It is determined by a combination of culture variables and geographic considerations (AF - Africa, ES - English-speaking, FE - Far East, LA - Latin America, ME - Mediterranean, WE - Western Europe). *Developed capital market* is a binary classification into developed and emerging markets as given in MSCI/Barra database in 2000. *Per-capita GDP* is expressed in real terms for the year 2000 and taken from the Penn World Tables.

Table 3: Institutional Clusters Around the World (k=3)

Panel A	Cluster 1	Cluster 2	Cluster 3
Cluster Membership using regulatory variables only	Australia	Austria	Argentina
	Canada	Belgium	Brazil
	Hong Kong	Chile	Colombia
	India	Denmark	Ecuador
	Ireland	Finland	Egypt
	Israel	France	Indonesia
	Malaysia	Germany	Jordan
	New Zealand	Greece	Kenya
	Singapore	Italy	Mexico
	South Africa	Japan	Nigeria
	Taiwan	Korea (South)	Pakistan
	Thailand	Netherlands	Peru
	United Kingdom	Norway	Philippines
	United States	Portugal	Sri Lanka
		Spain	Turkey
		Sweden	Uruguay
		Switzerland	Venezuela
			Zimbabwe

Panel B	Cluster 1	Cluster 2	Cluster 3
Cluster Membership using regulatory and market outcome variables	Australia	Austria	Argentina
	Canada	Belgium	Brazil
	Hong Kong	Chile	Colombia
	Israel	Denmark	Ecuador
	Malaysia	Finland	Egypt
	Singapore	France	Indonesia
	United Kingdom	Germany	Jordan
	United States	Greece	Kenya
		India	Mexico
		Ireland	Nigeria
		Italy	Pakistan
		Japan	Peru
		Korea (South)	Philippines
		Netherlands	Sri Lanka
		New Zealand	Thailand
		Norway	Turkey
		Portugal	Uruguay
		South Africa	Venezuela
		Spain	Zimbabwe
		Sweden	
		Switzerland	
		Taiwan	

Panel C	Cluster 1	Cluster 2	Cluster 3
Cluster Membership using regulatory and reporting practice variables	Australia	Austria	Argentina
	Canada	Belgium	Brazil
	Hong Kong	Chile	Colombia
	Ireland	Denmark	Greece
	Israel	Finland	India
	Malaysia	France	Italy
	New Zealand	Germany	Mexico
	Singapore	Japan	Pakistan
	South Africa	Korea (South)	Philippines
	United Kingdom	Netherlands	Portugal
	United States	Norway	Taiwan
		Spain	Thailand
		Sweden	
		Switzerland	

Panel D	Cluster 1	Cluster 2	Cluster 3
Mean values for Clusters in Panel B			
CIFAR disclosure score	66.36	71.64	77.63
Earnings management and opacity score	0.34	0.54	0.55

The table presents results from k-means cluster analyses for a sample of a maximum of 49 countries specifying three distinct clusters (k=3). Panel A reports the results using the regulatory variables from Table 2 with respect to securities regulation, investor protection and enforcement (except the indicator for class-action lawsuits as binary variables can be problematic in cluster analysis). Panel B extends the set of institutional variables and includes the regulatory variables plus three financial development variables from Djankov et al. (2008), i.e., the ratio of stock market capitalization held by small shareholders to GDP, the ratio of the number of domestic firms listed in a given country to its population, and the ratio of equity issued by newly-listed firms in a given country to its GDP (all three ratios are averaged from 1996 to 2000). Panel C extends the set of institutional variables and includes the regulatory variables plus two variables that capture firms' reporting practices, i.e., the CIFAR disclosure score for 1995 and an updated earnings management and opacity score from Leuz et al. (2003) computed from 1995 to 2005. See Appendix Table for more details. All variables are standardized to z-scores. For all analyses, I sort the data by per-capita GDP in 2000 and specify that initially k nearly equal partitions are formed from the data such that approximately the first N/k observations are assigned to the first group, the second N/k observations to the second group, and so on. The group means from these k groups are used as the starting group centers. As cluster analysis can be sensitive to the initial starting groups, I repeat the analyses with different starting clusters to check robustness and representativeness of the final clusters. Panel D reports the mean CIFAR disclosure score and the mean earnings management and opacity score for each cluster in Panel B. The differences in means across clusters are statistically significant at the 10% level or better except for the difference in the earnings management scores between Cluster 2 and Cluster 3.

Table 4: Institutional Clusters Around the World (k=5)

Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Australia	Belgium	Austria	Argentina	Brazil
Canada	Finland	Chile	Colombia	Indonesia
Hong Kong	Ireland	Denmark	Ecuador	Nigeria
India	Italy	France	Egypt	Pakistan
Israel	Japan	Germany	Greece	Peru
Malaysia	Korea (South)	Norway	Jordan	Philippines
Singapore	Netherlands	Portugal	Kenya	Sri Lanka
United Kingdom	New Zealand	Spain	Mexico	Thailand
United States	South Africa	Sweden	Uruguay	Turkey
	Taiwan	Switzerland	Venezuela	Zimbabwe

The table presents results from k-means cluster analysis for a sample of a maximum of 49 countries specifying five distinct clusters (k=5). The analysis uses the regulatory variables from Table 2 with respect to securities regulation, investor protection and enforcement (except the indicator for class-action lawsuits as binary variables can be problematic in cluster analysis). The clusters are similar if I extend the set of institutional variables and include three financial development variables for the year 2000 from Djankov et al. (2008). All variables are standardized to z-scores. I sort the data by per-capita GDP in 2000 and specify that initially k nearly equal partitions are formed from the data such that approximately the first N/k observations are assigned to the first group, the second N/k observations to the second group, and so on. The group means from these k groups are used as the starting group centers. As cluster analysis can be sensitive to the initial starting groups, I repeat the analyses with different starting clusters to check robustness and representativeness of the final clusters.

Appendix: Transparency Scores

Country name	*LNW Score 1990-1999*	*LNW Score 1996-2005*	*CIFAR Index 1995*
ARGENTINA	0.371	0.391	68
AUSTRALIA	0.149	0.078	80
AUSTRIA	0.862	0.808	62
BELGIUM	0.739	0.682	68
BRAZIL	NA	0.658	56
CANADA	0.286	0.162	75
CHILE	0.267	0.358	78
COLOMBIA	NA	0.478	58
DENMARK	0.475	0.530	75
EGYPT	NA	NA	NA
ECUADOR	NA	NA	NA
FINLAND	0.397	0.260	83
FRANCE	0.475	0.536	78
GERMANY	0.726	0.620	67
GREECE	0.910	0.881	61
HONG KONG	0.371	0.521	73
INDIA	0.486	0.537	61
INDONESIA	0.796	0.715	NA
IRELAND	0.428	0.199	81
ISRAEL	0.367	0.329	74
ITALY	0.844	0.826	66
JAPAN	0.856	0.802	71
JORDAN	NA	NA	NA
KOREA (SOUTH)	NA	NA	68
KENYA	0.765	0.693	NA
MALAYSIA	0.666	0.643	79
MEXICO	NA	0.502	71
NETHERLANDS	0.593	0.482	74
NEW ZEALAND	0.182	0.121	80
NORWAY	NA	NA	75
NIGERIA	0.330	0.306	70
PAKISTAN	0.677	0.706	73
PERU	NA	0.464	NA
PHILIPPINES	0.372	0.552	64
PORTUGAL	0.774	0.880	56
SINGAPORE	0.646	0.601	79
SOUTH AFRICA	0.235	0.307	79
SPAIN	0.756	0.792	72
SRI LANKA	NA	NA	74
SWEDEN	0.394	0.168	83
SWITZERLAND	0.637	0.504	80
TAIWAN	0.452	0.639	58
THAILAND	0.453	0.506	66
TURKEY	NA	NA	58
UNITED KINGDOM	0.216	0.133	85
UNITED STATES	0.115	0.228	76
URUGUAY	NA	NA	NA
VENEZUELA	NA	NA	NA
ZIMBABWE	NA	NA	72

The table provides transparency scores for the sample of 49 countries in Table 2 (if available). The first two columns present (updated) earnings management and opacity scores based on Leuz, Nanda and Wysocki (2003) (*LNW Scores*) that are computed from 1990 to 1999 and 1996 to 2005, respectively. Following LNW, the earnings management and opacity score consists of four different metrics measuring the extent to which firms' reported earnings obfuscate economic performance due to earnings smoothing and the use of reporting discretion. As a slight deviation from LNW, the smoothing scores are first computed by firm (requiring a minimum of 4 firm-years) and then aggregated at the country level (which should be more accurate). I use percentage (rather than raw) ranks to aggregate the four metrics into the aggregate country score. Following LNW, I require that countries have a minimum number of firm-year observations (i.e., 500) to compute the loss aversion metric and I discard country-years with high inflation rates (above 20%) before computing the four individual metrics. The *CIFAR Index* is created by the Center for Financial Analysis and Research based on firms' 1995 annual reports. It counts the inclusion (or omission) of 90 items that fall into 7 broad disclosure categories and, in each country, the index covers a minimum of 3 companies (see Bushman et al., 2004, for more details).

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