

**WHEN IS TWO REALLY COMPANY? THE EFFECTS OF COMPETITION AND
REGULATION ON CORPORATE GOVERNANCE**

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ABSTRACT

In this paper we bring together agency, stakeholder, institutional and resource-dependence theories to study the direct and interactive effects of country regulation and competition on two dimensions of corporate governance: the overall quality of corporate governance of firms in a country, and firm-to-firm variations in corporate governance. Interactive conditions are more representative of the real-world context of corporate governance, and the contradictory pressures that firms face in such interactive conditions are better explained through the use of multiple theories of corporate governance. Using a dataset that spans 15 countries and includes 463 firms, we find that firm corporate governance is better in conditions where either regulation or competition is well-developed, by comparison with interactive conditions. We also find that while regulation enhances within- country convergence, it is likely that competition serves to enhance across-country convergence.

WHEN IS TWO REALLY COMPANY? THE INTERACTIVE EFFECTS OF COMPETITION AND REGULATION ON CORPORATE GOVERNANCE

Corporate governance, defined as “*the determination of the broad uses to which organizational resources will be deployed and the resolution of conflicts among the myriad participants in organizations*” (Daily, Dalton, & Canella, 2003: 371), has been a key domain of research, given its relevance to both firm performance and overall efficiency of the business environment. While firms are concerned with the competitive aspects of corporate governance, policy-makers attempt to bring about better governance practices, and consequently foster a better business climate, through regulation. However, despite the large volumes of work on the issue of country environments (e.g. LaPorta, Lopez-de-Silanes, Shleifer, & Vishny, 1998; LaPorta, Lopez-de-Silanes, & Shleifer, 1999; Shleifer & Vishny, 1997), the interactive impact of regulatory pressures and competitive forces on firm corporate governance has received relatively less attention.

In general, the legal environment has a strong effect on firm corporate governance (LaPorta et al., 1998). Market competition also has a disciplinary effect on firms by driving inefficient firms out (Alchian, 1950; Stigler, 1958), and making monitoring more efficient (Holmstrom, 1982; Nalebuff & Stiglitz, 1983). However, while competition reduces expropriation by managers, in itself it may be insufficient to engender better corporate governance (Shleifer & Vishny, 1997). Regulation, without a commensurate emphasis on competition may lead to compliance by firms in order to avoid punitive measures, but lacks positive incentives for firms to enhance governance. This may distort the governance incentives of the firm’s managers and produce highly inefficient outcomes. Firms may also improve their corporate governance, in a bid to attract positive attention from market intermediaries (Khanna &

Palepu, 2000), and thereby enhance the resources available to them from labor, product and capital markets. Regulation and competition therefore provide different types of incentives for firms to enhance corporate governance. In the case of regulatory pressures, firms are likely to consider the costs of non-compliance, whereas in the case of competitive forces, the focus would be on resultant benefits, such as differential access to resources, and reduced agency costs.

To reconcile these potentially contradictory pressures requires reliance on more than one theory of corporate governance alone, essentially since the governance behavior of firms in different interactive conditions is likely to be based on different motivations. While the institutional and stakeholder perspectives of corporate governance suggest that compliance with regulatory mandate is an important consideration for firms, agency and resource-dependence theories highlight the potential competitive benefits that may arise from corporate governance. Yet the resources available to firms may be limited, and environment pressures to comply may vary, with the result that regulation and competition may not always work in tandem. We therefore take a multi-theoretical perspective to explore the interactive effects of regulation and competition on firm corporate governance, as well as on corporate governance convergence. Using a dataset that spans 15 countries and includes 463 firms, we find that firm corporate governance is better in conditions where either regulation or competition is well-developed, by comparison with interactive conditions. We also find that while regulation enhances within-country convergence, competition serves to enhance across-country convergence.

BACKGROUND

Regulation and Competition

We define regulation as *positive legislation and mandate, designed to enhance investor and shareholder protection*, as opposed to the possible interpretation of regulation as an

impediment or obstacle to efficient conduct of business. This is in keeping with previous operationalizations of regulation, in terms of shareholder protection (LaPorta et al., 1998), judicial efficiency, and support for business (Klapper & Love, 2002), and also positions our paper in line with prior findings that positively associate the level of regulation in an environment with the quality of corporate governance therein. Similarly, we define competition as *the operation of market mechanisms, which allow for the conduct of business whereby stronger competition leads to more efficient markets*. Therefore, conditions with strong regulation and competition, in general, are viewed as desirable.

Our choice of regulation and competition as the predictor variables of interest is motivated partly by emerging research and partly by practice. Both social factors, such as regulation, and economic factors, such as the competitive environment, influence corporate governance, distinctly, and interactively (Aguilera & Jackson, 2003). Each of these forces shares links with the other (Aoki, 2001), and the influence of one may even be contingent on the other (Aguilera & Jackson, 2003). Further, governance practices found in the real world tend to emerge from a confluence of the actions of managers and policy-makers: Policy-makers attempt to change the governance environment through regulation, and managers, while concerned with regulation, would also be driven strongly by the competitive environment, in their decision-making.

Corporate Governance

The basic postulate of this paper is that regulation and competition, directly and interactively, affect firm corporate governance. We highlight two aspects of corporate governance as being of relevance here:

Firm Corporate Governance. First, we are interested in assessing the extent to which a firm has mechanisms and practices that allow for the fulfillment of the aims of corporate governance, including specifically the maximization of shareholder value, and balancing stakeholder interests, as put forth in Daily, Dalton & Canella (2003)'s broad definition. Academic research uses specific indicators drawn from the underlying theory to determine the quality of corporate governance, such as CEO characteristics (Jensen & Zajac, 2004); compensation (Cyert, Kang & Kumar, 2002); and board diversity (Carter, Simkins, & Simpson, 2003). Some researchers have also sought to combine many of these indicators to arrive at scores or indices of firm corporate governance, for example, the Governance Index (Gompers, Ishii & Metrick, 2003), the Entrenchment Index (Bebchuk & Cohen, 2005; Bebchuk, Cohen & Ferrel, 2004), and the Anti-takeover (ATI) Index (Cremers & Nair, 2005). Recently, practitioner and consulting organizations such as Credit Lyonnais Securities Asia, Governance Metrics International, and Standard & Poor offer firm scores or rankings based on a variety of governance indicators, many of which are derived from academic research, such as board independence and CEO compensation. Our first dependent variable therefore is a numerical quantification of governance quality, as represented by a firm's score for corporate governance.

Our interest in this element of corporate governance stems from the evidence that suggests that better corporate governance leads to better performance (e.g. Black, Jang, & Kim, 2003; Durnev & Kim, 2003; Peng, 2004)¹. Despite our reliance on multiple theories, this seems

¹ At this point, we believe it is important to distinguish between the arguments we present and seemingly contradictory evidence. A series of meta-analyses by Dalton and colleagues on ownership (Dalton, Daily, Certo, & Roengpitya, 2003), board composition (Dalton, Daily Ellstrand, & Johnson, 1998) and board size (Dalton, Daily, Ellstrand, & Johnson, 1999) suggests that there is no significant link between corporate governance and performance. These studies examine only certain facets of corporate governance, such as board of directors, and ownership,

to be a point of consistency between these different perspectives. Under the agency theory, firm performance is augmented by reduced costs of capital (Jensen & Meckling, 1976). Under the resource-dependence theory good corporate governance can provide the firm with increased resources (Hillman & Dalziel, 2003). Efficient stakeholder management contributes to firm performance (Hillman & Keim, 2001), and consonance with the demands of the institutional environment can provide access to resources such as legitimacy, and thereby enhance performance (Suchman, 1995).

Variation in corporate governance. Second, we are interested in the relative similarities or differences in corporate governance scores of firms in a particular country, as represented by our second dependent variable: the variation in a firm's corporate governance from the environmental average. This issue is linked to the debate on convergence of corporate governance, which is briefly summarized thus: While on the one hand, researchers predict that global forces will lead to convergence of corporate governance practices towards the Anglo-American model (Aguilera & Jackson, 2003), others point to the effects of historical path-dependence in fostering variation (Bebchuk & Roe, 1999). Yet others argue for some level of convergence, though towards a hybrid model that takes into account differences in governance systems (Aoki, 1990).

This issue is of interest from a strategic point of view, since it is representative of the debate on organizational consistency, in the specific context of corporate governance. The Weberian perspective suggests that close adherence to 'rules' enhances organizational efficiency, accountability and co-ordination, which in turn may result in performance benefits (Weber, 1946). Such consistency also reduces uncertainty, and enhances accountability and reliability in

severally and distinctly. We are concerned with the overall effect of mechanisms and practices that constitute corporate governance, and refer therefore to research that shares the same concern.

the eyes of stakeholders and exchange partners (Hannan & Freeman, 1977, 1984). In this paper therefore, we look at the effects of regulation and competition on consistency (or lack thereof) of corporate governance, within a given country context. Aguilera & Jackson (2003) distinguish between within-country and across-country convergence, to suggest that processes which support the former would actually inhibit the latter. In this way, our paper goes beyond the convergence debate as it is traditionally conceived, in that we examine within-country convergence and draw linkages from our conclusions thereon back to the issue of cross-country convergence.

Theories of Corporate Governance

We are interested in how different theories of corporate governance inform the mechanisms underlying the effects of regulation and competition on corporate governance. While agency and resource-dependence theories provide links to the competitive elements of corporate governance, institutional and stakeholder theory together suggest that compliance with norms and mandate also drives firm corporate governance.

Agency theory. The classical arguments of Jensen & Meckling (1976) suggest that ownership and managerial interest may not be aligned, leading to agency costs (Jensen, 1986; Jensen & Meckling, 1976). The concern of the domain of corporate governance has long been to resolve the agency issue (Daily, Dalton, & Rajagopalan, 2003; Tsipouri & Xanthakis, 2004), particularly since such resolution would increase firm performance, by reducing agency costs and increasing internal efficiencies. Agency theory therefore also leads to the postulate that firms with high levels of agency are likely to face threats from firms in the environment, through the mechanism of the market for corporate control (Jensen & Ruback, 1983). This presumes the operation of an efficient competitive environment, in which information asymmetries are minimal, and competitive pressures are high. Efficient competition is also a precondition to the

general notion that reduced agency and increased managerial efficiency would lead to performance benefits, in the form of increased economic valuation by the market within which the firm operates. We therefore propose generally that the agency theory of corporate governance is likely to explain the effects on firm corporate governance particularly in competitive environments.

Resource-dependence theory. Boards of directors can be a key source of various resources (Pfeffer, 1972), based on human capital, such as advice and expertise, and social capital, such as legitimacy and links to other organizations, cumulatively described as board capital (Hillman & Dalziel, 2003). The relationship between board capital and firm performance is well documented (Dalton et al., 1999; Pfeffer, 1972), thereby making the resource dependence view a key theory in corporate governance. However, this view essentially presumes that firms are in a position to benefit from their board capital, implying that the organization is an efficient one. The general proposition that such human capital is of value also presumes the existence of a reasonably efficient labor market. Similarly, relational capital, such as channels of communication, is likely to be of more value in situations where such channels offer firms a competitive edge or increased advantage over their competitors. The resource-dependence theory, therefore, is also best applied in competitive environments.

Stakeholder theory. Freeman, (1984) in his work on stakeholder theory, proposes the concept of stakeholder management to address the ethical and moral considerations of business alongside the more competitive ones. Such views have gained much force with suggestions that the practice of stakeholder management will contribute positively to the performance of firms (Donaldson & Preston, 1995; Hillman & Keim, 2001). However, the emphasis on stakeholders may vary in keeping with the levels of protection that are provided to various stakeholder groups.

Prior research shows that firm value is higher in countries with better protection of minority shareholders, (LaPorta, Lopez-De-Silanes, Shleifer, & Vishny, 2002), and in countries with strong protection of minority investor rights, overinvestment in declining industries is curbed (Wurgler, 2000). In general the operation of an effective system of stakeholder management by firms therefore assumes that such stakeholders are identified and recognized through legislation.

Institutional theory. Institutional theory has long advocated the performance benefits of consonance with the institutional environment (Arthur, 2003; Hart & Milstein, 2003; Oliver, 1997). The economic benefits of legitimacy are dependent on such consonance (Suchman, 1995). Specifically institutions impact firm corporate governance (e.g. Gillian & Starks, 2001; Shleifer & Vishny, 1997). Institutional actors also lead to reduced “earnings management”, or the alteration of firms’ reported economic performance by insiders (Leuz, Nanda, & Wysocki, 2003). However, the institutional perspective on corporate governance assumes that the business environment is adequately regulated, and both recognizes and empowers institutions to reward firms with, or withhold from firms resources such as legitimacy. Therefore, the tenets of institutional theory are also best met in a business environment with strong regulation.

HYPOTHESES: A MODEL OF THE EFFECTS OF REGULATION AND COMPETITION

Firm Corporate Governance Score

Drawing mainly from the institutional and stakeholder perspectives of corporate governance, we argue, in keeping with the findings of prior research (La Porta et al, 1998, 1999) that regulation would have a positive impact on corporate governance. Where regulation is strong, firms would comply with mandate in order to avoid potential punitive repercussions. Since such regulation may empower stakeholders, and better afford protection to their rights,

firms may place more focus on managing these stakeholders, and meeting their interests. Therefore, while essentially a restatement of such prior findings, in the interests of clarity we hypothesize as follows.

H1. Regulation has a positive effect on firm corporate governance scores.

Drawing from the link between corporate governance and performance, as competition grows intense, firms may use corporate governance as a means to gain some sort of competitive benefit, such as reduced costs of capital, or access to resources. We therefore use both agency and resource-dependence theories here to highlight the potential uses of corporate governance to gain some form of competitive edge. Corporate governance in itself may serve to enhance legitimacy and draw favorable attention to the firm (Khanna & Palepu, 2004a), as well as reduce the costs of capital (Stulz, 1996; 1998), and enhance the availability of resources (Peng, 2004; Hillman & Keim, 2001). Competitive forces operating in the larger business environment may exert a disciplinarian effect on firm corporate governance, and increase productive efficiency (Bertrand & Mullainathan, 2003). Where contracts protecting investors from expropriation are enforced by the market, the regulation of financial markets would be unnecessary (Stigler, 1964; Easterbrook & Fiskel, 1991). In fact, deregulation leads to the development of alternative, internal governance mechanisms by firms, for strategic reasons (Kim & Prescott, 2005; Hillman, Cannella & Paetzold, 2000), and increases the importance of the managerial function (Kole & Lehn, 1997). This suggests that competitive forces, in themselves serve to enhance corporate governance, distinct from the positive effects of regulation. We therefore hypothesize as follows.

H2. Competition has a positive effect on firm corporate governance scores.

In the preceding sections we identify two benefits arising from corporate governance. While the argument supporting the positive effects of regulation is that firms would choose to comply to avoid punitive costs, the competitive process is characterized by gain, rather than cost avoidance. In competitive conditions, firms would use corporate governance to gain competitive benefits, such as lower costs of capital. However, in conditions where regulation is strong, firms would have already benefited from the reduced agency costs and increased resource availability that accrue under agency and resource-dependence theories respectively. Here, stakeholder and institutional theories would serve to explain firm compliance with legal mandate.

In such situations, firms may not find it efficient to allocate their resources towards further enhancing corporate governance, particularly when such resources may be used beneficially in more traditional forms of competition. That is, we propose that the dual benefits arising from regulation and competition, may not be distinct, but rather the former may subsume the latter, when both regulation and competition are strong. Firms in such interactive conditions may not be highly-rewarded for their corporate governance, since many, if not all firms would comply with mandate to avoid punitive costs. The benefits arising from competition therefore are diluted. Faced with overall competitive pressures, and little competitive benefits forthcoming from governance, firms may even consider restricting the resources they devote to corporate governance. Firms aiming to comply with mandate may also be restricted from doing so, due to inadequacy of resources, given the competitive environment. We therefore propose that the interaction of regulation and competition embodies contrasting pressures, and therefore hypothesize:

H3. The interaction of competition and regulation has a negative effect on firm corporate governance scores.

Variation in Corporate Governance

The effects of regulation proposed in literature thus far have been derived mainly from institutional and stakeholder perspectives of corporate governance. Institutional theory suggests that regulatory forces work predominantly through mechanisms of coercive isomorphism (Scott, 2001). The coercive nature of a well-defined regulatory environment would require that firm corporate governance meets legally set standards. Such regulatory regimes also result in a historical, or path dependent effect. For example, the historical bank monitoring systems in Japan could be linked to labor market practices (Aoki, 1994) and extent of equity cross-holdings by firms (Berglof & Perotti, 1994). Since firms within a given country environment are equally exposed to a specific regulatory regime, it is logical that firms within this regime would tend to have similar corporate governance, with little deviation from the country average. Particularly, as regulation increases, either through additional mandate, or through an increase in monitoring and enforcement of existing mandate, the coercive nature of this environmental force would ensure higher compliance with prescribed standards, and consequently, reduce the possible diversity in firm corporate governance, within a given country. The process of coercive isomorphism is therefore identified as a likely explanation for homogenization of corporate governance within a country.

As firms attempt to address the interests of multiple stakeholders, given the empowerment of the latter in well-regulated environments, the likelihood of variation in corporate governance decreases. The more the stakeholders being addressed by each firm, the greater the possibility of overlap in stakeholder groups across firms, leading to similarities in corporate governance across the latter. Also, in environments with strong and efficient regulation,

there will be a trend towards convergence on the mandated standards of corporate governance, thereby reducing the variation in firm corporate governance. We therefore hypothesize:

H4. Regulation has a negative effect on variation in firm corporate governance scores.

The competitive business environment is, by implicit definition in the preceding sections, one that allows for efficient information exchange, and where the response of the market to information is fast. In such an environment, therefore, firms are likely to aim to benefit from reduced agency costs, increased monitoring, and availability of resources through improved corporate governance. Earlier, we have used agency and resource-dependence perspectives to suggest that competition affects corporate governance, essentially since better governance may lead to better firm performance. In this section, we call upon the same two theories: agency and resource-dependence, to examine the effect of competition on variation in corporate governance. While, as discussed in previous sections, competition is likely to enhance firm corporate governance, more benefits are likely to accrue to firms which not only exhibit good governance, but also display governance that is better than that of competitors.

As firms compete with each other on the basis of governance, the relative quality of corporate governance becomes important. Profit may be dependent not only on deriving benefits from corporate governance, but on deriving significantly more benefits from corporate governance than competitors. That is, it becomes important to benefit from costs of capital lower than that of competitors, and enjoy differential access to resources that cannot be easily replicated. For this reason, many firms are likely to bring about governance that is not only of a good quality, but also exceeds, or is distinct from general practice, since it may be possible for firms to gain some benefit or premium by displaying corporate governance that is better than the

norm. Firms may benefit from increased legitimacy, beneficial comparisons, and enhanced reputation, leading to better valuation in the market, as well as differential access to various resources. In such a case, the forces of competition are likely to work to increase variation in corporate governance.

H5. Competition has a positive effect on variation in firm corporate governance scores.

However, the effects of competition may be contingent on the level of regulation in the environment. Where regulation is inadequate, competitive forces may enhance isomorphism, though through mimetic processes that are distinct from the coercive processes associated with regulation. Scott (2001) identifies the mimetic branch of institutional influence as cognitive in its basis, suggesting that the institutional perspective, in addition to agency and resource-dependence theories, may be useful in explaining the effects of competition on variation in corporate governance. Compliance with mimetic influences suggests that firms respond by tending towards isomorphism on the basis of a cognitive decision to benefit from imitation, given that they may not have enough information to construct alternatives (Scott, 2001). This decision comes from the cognitive evaluation of the need to take a profitable, performance-enhancing decision, even if the decision is to imitate an action that has benefited comparable firms.

Consequently firms are likely to display mimetic isomorphism when a) informational asymmetries inhibit the pursuit of competitive advantages, and/or b) when the firm adopts imitation as a competitive tactic, irrespective of the availability of information, to enjoy resource-linked benefits available to firms that are being imitated. That is, firms may sometimes benefit concurrently from institutional and resource-dependence processes linked to corporate

governance (Peng, 2004). Isomorphism can also be a source of legitimacy for firms (Deephouse, 1996; Hillman & Wan, 2005; Suchman, 1995), and such legitimacy may confer advantages in terms of access to resources, as well as enhanced reputation. Further, adapting to country standards, as evidenced by other firms, may be essential for firm survival (Duysters & Haagdoorn, 2001), and firms may tend to converge on some mandated or normative practices in order to reduce the threat of takeovers. This would have the effect of creating clusters of firms, with similar governance, but these clusters are in themselves likely to be distinct from each other, in terms of governance, leading to a considerable degree of firm-to-firm variation in corporate governance².

Where regulation is strong, competition may not affect variation in corporate governance in the same manner. Since regulation is supported by the possibility of punitive costs for non-compliance, the convergence effects of regulation and the divergence effects of competition may lead to conflicting pressures. Therefore while in certain conditions, the interaction of regulation and competition may reduce variation somewhat, in general, it is likely to have a positive effect, as hypothesized below.

H6. The interaction of regulation and competition has a positive effect on variation in firm corporate governance.

Table 1 summarises these hypotheses and shows the linkages between the four theories of corporate governance, regulatory and competitive environments.

Insert Table 1 about here

²We are grateful to a colleague for suggestions that led to the development of this particular argument.

The Distribution of Corporate Governance

In the preceding sections we hypothesized that regulation and competition would have a negative interactive effect on firm corporate governance, and a positive interactive effect on the firm-to-firm variation in corporate governance. However, we are also interested in understanding the differences in corporate governance across broad categories of interactive conditions. In this section, we elaborate on the likely distribution of corporate governance across four broad conditions captured by dichotomous distinctions (strong and weak) of regulation and competition.

Given the conflicting incentives in the processes of competition and regulation, the effect of regulation on firm corporate governance is likely to be most pronounced in environments with less emphasis on competition. As a consequence, in environments with strong regulatory efficiency but weak competition, there will be a tendency towards convergence on the high, legally-set, standards of corporate governance. In such environments, the costs of non-compliance may outweigh possible benefits of reducing costs associated with corporate governance, and instead result in congruence between institutional, stakeholder, agency and resource-based incentives for corporate governance. We therefore suggest that such environments would exemplify the best corporate governance, by comparison with other environments. Also, in such an environment, firms are not likely to benefit from a competitive stance that draws on corporate governance to gain either increased legitimacy or increased efficiency, since many firms, if not all, would meet mandated corporate governance standards, thereby reducing the variation in firm corporate governance to be the least across all environments.

Environments with strong regulation and strong competition showcase intensely competitive conditions, where the basics of corporate governance are relatively well-established. Firms would need to commit considerable resources in order to outdo their rivals and sustain their competitive advantage on the basis of corporate governance; particularly since the efficient business environment and competitive processes therein would recognize and reward only relatively distinctive corporate governance. At the point when firm corporate governance is reasonably homogenous across the environment, then no firm is likely to have a competitive edge based on corporate governance. Firms in such environments also face strong competition, and may therefore attempt to reduce costs associated with corporate governance, though only to the extent that it does not invoke the punitive costs of non-compliance that are likely in well-regulated environments. This would lead to moderately high firm corporate governance, with relatively little variation across firms.

In environments that are not well-regulated, firm may face some uncertainty as to what would constitute efficient and/or acceptable standards of corporate governance. In such environments, firms are likely to choose imitation as a means of dealing with such environmental uncertainty (DiMaggio & Powell, 1983; Henisz & Delios, 2001). As firms imitate the corporate governance of other firms in the environment to achieve competitive parity, homogenization is enhanced. However, conditions of weak regulation and strong competition also exemplify instances where it becomes important for firms to attract the attention of market intermediaries. Well-governed firms benefit more in environments with inadequate laws (Klapper & Love, 2002), since they may be able to beneficially distinguish themselves on the basis of corporate governance. These incentives however, would not provide the impetus required to meet the high standards of governance mandated in environment where regulation is, by comparison, stronger.

Particularly, those firms with above-average corporate governance may have little incentive to further enhance their governance, given that there is no legally-defined 'high standard' of governance, leading overall, to moderate firm corporate governance scores.

The interaction of both weak regulation and weak competition is a somewhat unique situation. These environments are the least structured, and therefore not supportive of either competition or compliance on the basis of corporate governance. Doidge, Karolyi & Stulz (2004) postulate that in economies with poor regulatory development, firms will find it difficult to commit to good governance, particularly because adopting good governance practices involves costs, without any associated benefits. In the absence of regulatory mandate, firms are not required to comply, and given the absence of any competitive benefits, firms may not invest their resources towards enhancing corporate governance. It is likely that the utility of good corporate governance is perceived to be limited, and attempts to implement corporate governance practices are highly idiosyncratic to firms. Therefore, such environments are likely to embody the lowest levels of corporate governance.

However, it is not possible to conclude that corporate governance is completely absent in such environments. Particularly, some firms may view corporate governance as a means to compensate for the perceived lack of business efficiency and transparency in the country, and a few outstanding firms may exhibit better corporate governance in a bid to attract positive attention (Khanna & Palepu, 2004a). Firms which are able to compensate for the inadequate institutionalization of the country environment, for example, through business groups as substitutes for financial institutions (Khanna & Palepu, 2000; 2004b), may not gain from exhibiting better corporate governance. In such an environment there is likely to be a large

variation in firm corporate governance. These arguments can be summarized to present the following set of hypotheses:

H7: Firm corporate governance scores in the strong regulation - weak competition condition > in the strong regulation - strong competition condition > in the weak regulation - strong competition condition > in the weak regulation - weak competition condition.

H8: Variation in firm corporate governance scores in the weak regulation - weak competition condition > in the weak regulation - strong competition condition > in the strong regulation - strong competition condition > in the strong regulation - weak competition condition.

Figure 1 shows the hypothesized dispersion of governance over the four conditions.

Insert Figure 1 about here

METHODS

Data and Sample

In order to test the hypotheses we use a cross-country dataset of 463 firms from 15 countries covered by the 2001 Credit Lyonnais Securities Asia (CLSA) report. The CLSA report is a recent, annual publication, which covers mainly emerging countries, located in Asia, Latin America, Europe and Africa, though developed economies such as Hong Kong and Singapore contribute to a sizeable a portion of the data. Table 2 shows the distribution of firms over the various countries. Due to the low number of observations in three Latin American countries,

namely Brazil, Chile and Mexico, firms in these countries were clubbed together as representing the South American region³.

Insert Table 2 about here

Our data on corporate governance comes from the aforementioned CLSA report. Firms are scored on their corporate governance through a questionnaire filled out by CLSA analysts in each country⁴. These data have been well-used in recent studies (Black, Jang, & Kim, 2003; Chen, Chen, & Wei, 2003; Doidge, Karolyi, & Stulz, 2004; Durnev & Kim, 2003; Klapper & Love, 2002; Krishnamurti, Sevic, & Sevic, 2003). Particularly, Palepu et al. (2002) use the CLSA report in their study of convergence in corporate governance, at the country-level, and also note, after testing, that the CLSA data does indeed meet the standards of reliability required. We chose the CLSA report as our source of data on corporate governance instead of other available academic and practitioner indices for two reasons: a) the construction of the index with emphasis on the most number of indicators or mechanisms of governance, and b) the availability of data for as many countries as possible.

Variables

Independent Variables. Our source of data on the independent variables used in this study is the World Competitiveness Report (WCR) 2000, which has also been used recently by other researchers (Glaeser, Johnson, & Shleifer, 2001; Yiu & Makino, 2002; Wan & Hoskisson,

³ The values of the independent variables, regulation and competition were found to be similar for these three countries, as were the values of the dependent variables. We therefore submit that aggregating data from these three countries into a single region is appropriate.

⁴ The questionnaire assesses the companies on 57 main issues based on seven key criteria derived from the OECD Principles of Corporate Governance (2000): Management discipline, transparency, accountability, responsibility, fairness, and social responsibility, and is designed such that all questions have binary answers (yes/no), so that the analyst's subjectivity is reduced.

2003). We lagged the independent variable by a year, in order to allow time for firms to respond to environmental forces. The WCR ranks countries on four components, Government Efficiency, Economic Performance, Business Efficiency and Infrastructure, covering a total of 286 criteria. Using a standard deviation method (SDM) that is discussed in detail in each edition of the World Competitiveness Yearbook, the criteria are scaled to compute the overall competitiveness factor, and its components, for each country surveyed. We used two of these components, Government Efficiency, which covers 73 criteria, as proxy for the strength of coercive forces in a country; and Economic Performance, which covers 79 criteria, as proxy for the strength of mimetic forces, as these two components were best suited to capture the conditions based on mimetic and coercive influences, as we conceptualized them.

The Government Efficiency component emphasizes the existence, strength and efficiency of various governmental entities, their functions and regulatory activities, which capture both the presence and strength of regulatory forces, particularly as it is relevant to business. Included in this component are sub-components dealing with the nature and quality of various business legislation, role of the central bank, and extent of protectionism, among others. We prefer this measure of overall efficacy of the regulatory environment, over measures of legislation alone, to capture both the existence of mandate and its adequate and efficient enforcement. In keeping with our definition of regulation as a positive impetus to business, the government efficiency component accords a lower ranking to countries that have protectionist regulation that impairs economic development (such as subsidies), or is inflexible. Political interference in judicial process and bureaucratic inefficiency are also considered as negative. The component also includes variables that examine the role of the judiciary, existing legislation and potential to

introduce legislation, transparency, and corruption, suggesting that the government efficiency component of the WCR is a valid measure of regulation, in the context of this study.

Similarly, the Economic Performance component covers basic economic and competitive elements such as foreign and domestic trade, foreign investment, threats to factors of production, economic health of the economy and potential for growth, which captures the overall competitive health of the country economy, and therefore would reflect the likelihood that firms would use their corporate governance mechanisms in order to meet competitive pressures. For example, the potential to access capital markets, and foreign investments, as captured by the WCR (Pol, 2003), could impact firm corporate governance (Fiss & Zajac, 2004), and may provide incentive for firms to engage in mimetic behavior vis-à-vis corporate governance. This component includes variables traditionally considered as indicators of the level of competition in countries, such as GDP and Purchasing Power Parity (PPP), as well as recent factors that are linked to competition and market efficiency, such as economic resilience, real growth rates of goods and services, exports and employment, as well as Foreign Direct Investment (FDI) and outflow of investment.

We therefore identify the WCR in general, and ‘Government Efficiency’ and ‘Economic Performance’ to be appropriate measures of coercive and mimetic influences, for this study⁵. Specifically, we tested these two components of the WCR against other measures to establish their reliability. We found that our measure of regulation is strongly correlated with another measure of regulation used in prior corporate governance research - the Government Efficiency component is very strongly correlated with the country measure of ‘legality’ used by Klapper &

⁵ The ‘Infrastructure’ and ‘Business Efficiency’ components were examined for the relevance of their constituent elements, and were found to be less relevant to the issue under examination in this paper, as compared to the two components that we used.

Love (2002) in their study of corporate governance (0.9, $p < 0.01$). We also found that the Economic Performance component is strongly correlated with the Global Competitiveness Rankings reported by the World Economic Forum (0.59, $p < 0.01$), suggesting that it is an accurate and reliable measure of competition.

To test hypotheses seven and eight, we coded the regulation and competition scores for each country into categorical variables– ‘1’ for strong, and ‘0’ for weak, based on whether they fall below or above the middle rank for population subgroup covered by the WCR (greater than or less than 20 million) ⁶. We calculate the four combinations of these two components of the environment, namely weak/strong regulation and weak/strong competition. The spread of countries across the four conditions is also given as part of Table 2. We find that Indonesia, Philippines and Turkey fare poorly on both the regulation and competition components. India and Korea exhibit strong competition, but remain poor on regulation. South Africa and Latin America are strong on regulation, but weak on competition. Six of the fifteen countries in our sample exhibit strong regulation and strong competition. While economies such as Singapore, Hong Kong and Taiwan could be expected to fall into this condition, we found it particularly interesting to see that China, Malaysia and Thailand were also in this group. In order to explore the possible reasons for the classification, as well as to further enhance the reliability of our measures, we looked into qualitative factors that may explain the position of all countries over the four conditions. A brief description of the countries, as well as justification of their classification, is given in Appendix A.

⁶ The bifurcation of rankings according to country size, for the year 2000, was made retrospectively available by IMD in 2003, and was advised as a more accurate representation of the relative position of countries as per the WCR.

Dependent Variables. Firm corporate governance scores are the dependent variables for hypotheses one to three, and hypothesis seven. We measured firm corporate governance using the weighted average of the seven components of the CLSA corporate governance scores. Variation in corporate governance scores of firms is the dependent variable for hypotheses four to six, and hypothesis eight. Our measure for this dependent variable is sensitive to both the number of firms in the country, as well as the difference in firm corporate governance scores. The sum of the values of this variable, for all firms in a given country, would give the variance of corporate governance scores for the population of firms in that country, in our dataset.

$$\frac{(\text{Country Average CG} - \text{score Firm CG score})^2}{N_{\text{country}} - 1}$$

Control variables. Since our hypotheses examine broadly the social and economic contexts of corporate governance, there remains little by way of environmental factors that are not covered under the purview of these two variables. We remain conscious that inclusion of further variables in our model may result in over-specification, though admittedly, it may contribute positively to the statistical outcomes of our tests. In order to avoid such potential over-specification, and also bearing in mind that the focus of our testing is predictive, as opposed to explanatory, we consciously trade-off the explanatory potential of our model as a whole for accurate predictive capability. However, given that our process of calculating the two independent variables, regulation and competition, involves rankings which are bifurcated on the basis of country size, we included a control variable to capture potential effects of the same. We control for country size using a simple categorical variable which has a value of 0 if the population of the country was less than 20 million, and a value of 1 if the population was 20

million or greater, following the WCR classification of country size. We specifically do not control for industry and firm-level effects, in the interests of parsimony. Recent literature suggests that with the exception of the distinction between financial services and non-financial services, industry does not seem to affect corporate governance (Doidge, Karolyi & Stulz, 2004; Palepu, Khanna & Kogan, 2002). While many firm-level variables could be argued to affect corporate governance, we do not identify any firm characteristics as being of specific relevance to the broad links drawn here between country characteristics and firm corporate governance. We therefore have little theoretical basis to choose from the many firm characteristics that may be linked to corporate governance. Consequently, including such variables may reduce the parsimony of our model, and misrepresent the predictive power of our model by inflating the percentage of variance explained.

Insert Table 3 about here

Testing and Results

We use a lag of a year between the independent and dependent variables, in order to ensure that firms have had time and opportunity to respond to environmental changes through their corporate governance practices. However, given the fast-paced nature of the competitive environment, as well as the quick operation of legislation in today's business context, we restrict this lag to one year. Standard diagnostic tests were performed on the data, including tests for normality and multicollinearity. Variance Inflation Factors (VIF) statistics for each of the models were used to check for multicollinearity. In all cases, the VIF statistics suggest that multicollinearity is not an issue.

While our predictor variables are logically independent from each other, the creation of an interaction term resulted in significant correlations between the variables. We therefore used a

partial Gram-Schmidt transformation procedure (Burrill, 1997) to orthogonalize our interaction variable, and ensure its mathematical independence from the other predictor variables. This is in order to avoid high correlation and consequent spurious multicollinearity between the main effects and interaction variables, which may lead to unstable results and low tolerances, as well as inflate the proportion of variance explained by the model as a whole, despite low explanatory power of the regression coefficients. The procedure involves regressing the interaction variable on the two main effects variables (regulation and competition) to obtain standardized residuals, which are then used in subsequent procedures in place of the interaction variable.

We then performed OLS regression to test hypotheses one to six. Our choice of this procedure, and the subsequent presentation of results derived thereby merits some explanation. While OLS regression is, in itself a well-accepted statistical procedure, we nevertheless had to address two concerns: a) the possibility of interrelation between our two dependent variables, and b) our data was likely to be right skewed, since few firms had governance scores close to zero, while many firms had governance scores close to the maximum possible score of one hundred. In the first case, the correlation between our two dependent variables firm corporate governance and variation in corporate governance is low (-0.13 , $p = 0.003$) and therefore it is likely that the two dependent variables are not interrelated. However, we use the General Linear Models Multivariate Analysis (GLM-Multivariate) procedure in SPSS to simultaneously estimate the effects of the independent variables on both dependent variables. The results from the GLM-Multivariate procedure were identical to those obtained using OLS regression, suggesting that there is no significant relationship between the two dependent variables. We therefore present results only from the OLS procedure.

In order to address the second concern, and test the stability of our results we used a simple jack-knife procedure, wherein we further tested two sub-models derived from our dataset. The jackknife method (Crask & Perreault, 1977; Quenouille, 1949; Tukey, 1958) involves repetitively dropping different cases or subsets of cases from the analysis to determine how stable results are across various configurations of cases (Ang, 1998). In the first of our two sub-models, we dropped the firms with the highest corporate governance scores in each country environment, to arrive at a reduced sample. Similarly, in the second sub-model we dropped the firm with the lowest corporate governance scores in each country environment, to arrive at a second reduced sample. We ran different OLS regression models for each of the dependent variables on these reduced datasets and found the results to be similar to the universal (full-dataset) model⁷. Using procedures described in Yu (2003), the jack-knifed coefficients were computed by averaging the ‘pseudo-coefficients’ from both sub-models, and these coefficients were then used to derive t-statistics to assess the stability of the coefficients. We concluded, on the basis of these results that our results from the universal model were stable.

Using dummy variables to represent the four interactive conditions of regulation and competition, we ran tests of means using ANOVA to test hypotheses seven and eight. All results are presented below. Descriptives and bivariate correlations of dependent variables, independent variables, and the control variable are given in Table 3. Table 4 provides the results of the regression model.

Insert Table 4 about here

⁷ Results are available from the authors.

Regression Analysis. Two regression models were run to examine the main and interactive effects of regulation and competition on firm corporate governance, and variation in corporate governance, respectively. Results are presented in Table 4. Model 1 tests hypotheses one to three and model 2 tests hypotheses four to six. Both models are significant with R-square of 0.27 (F-value = 41.71, $p = 0.000$), and (F-value = 0.09, $p = 0.000$) respectively. The results from model 1 are as follows: The control for country size was positive and significant ($\beta = 0.55$, $p = 0.000$). The coefficient for regulation is positive and significant ($\beta = 1.04$, $p = 0.000$), providing support for hypothesis one. Contrary to our expectations, the effect of competition on firm corporate governance was negative ($\beta = -0.64$, $p = 0.000$). Therefore, hypothesis two was not supported. The coefficient for the variable capturing interaction between regulation and competition is negative and significant ($\beta = -0.26$, $p = 0.000$), thereby providing support for hypothesis 3. Model two tested the direct and interactive effects of regulation and competition on variation in firm corporate governance. The control for country size had a negative coefficient ($\beta = -0.28$, $p = 0.001$). As hypothesized, regulation had a negative and significant effect on variation ($\beta = -0.42$, $p = 0.000$), whereas competition, and the interaction of regulation and competition both had positive and significant effects ($\beta = 0.28$, $p = 0.000$; $\beta = 0.29$, $p = 0.000$, respectively). Hypotheses four, five and six are therefore supported.

Insert Table 5 about here

Comparison of Means. Tables 5 and 6 provide the results of one-way ANOVA tests, with firm corporate governance scores, and variation in firm corporate governance scores as the two dependent variables. These tests show that that there is a statistically significant difference in firm corporate governance scores, and variation in firm corporate governance scores across the

four conditions of strong/weak regulation and strong/weak competition ($F = 50.34$, $p = 0.000$; $F = 21.55$, $p=0.000$ respectively). Tukey's HSD post-hoc tests reveal that all the group means are significantly different from one another. Firms in environments characterized by strong regulation and weak competition have the highest corporate governance scores (mean = 64.47) followed by firms in environments with strong regulation and strong competition (mean = 57.81), and then by firms in environments with weak regulation and strong competition (mean = 53.4). Firms in environments with weak regulation and weak competition have the lowest corporate governance scores (mean = 41.43). Pairwise comparisons show that the difference in means across all four conditions are statistically significant, and fall in the order mentioned above, thereby providing support to hypothesis seven.

Hypothesis eight was only partially supported. The results show that as hypothesized, variation is highest in the weak regulation – weak competition condition (mean = 7.30), and was lowest in strong regulation – weak competition condition (mean = 1.34). While the mean values of variation in the two former conditions were significantly different from each other and from values of mean variation in the weak regulation - strong competition and strong regulation – strong competition conditions (mean = 1.36, and 3.54 respectively), we failed to find a significant difference in the mean values of variation, between the latter two conditions. That is, we were unable to find support for part of hypothesis eight, which proposed that variation would be higher in the weak regulation – strong competition condition, as compared to the strong regulation – strong competition condition. We explore some of the possible explanations for our findings in the next section.

Insert Table 6 about here

DISCUSSION

Effects of Regulation and Competition

Our results provide support for all hypotheses except two and eight. While hypothesis two was rejected, we found partial support for hypothesis eight. In keeping with findings in prior research, based primarily on institutional and stakeholder perspectives of corporate governance, stronger and more effective regulation tends to foster better corporate governance. As firms increasingly comply with such mandated standards, similarities in mechanism, practices and key stakeholder groups result in increased within-country convergence. We also find that as hypothesized, competition has a positive effect on variation in firm corporate governance scores. Based on agency and resource-dependence theories, we argued that firms would attempt to distinguish themselves from competitors on the basis of corporate governance in order to enjoy lower costs of capital and differential access to resources, resulting in greater variation in corporate governance. Hypotheses three, six and seven, which dealt with interactive conditions of regulation and competition all received support. We relied on all four theories of corporate governance: agency, stakeholder, resource-dependence, and institutional, to argue that interactive conditions place multiple, sometimes opposing pressures on firms, leading therefore to a negative effect on firm corporate governance scores, and a positive effect on variation in governance scores, respectively.

Hypotheses two was not supported. We had predicted that competition would have a positive effect on firm corporate governance. Our argument was based on the premise that the competitive benefits accruing from corporate governance would serve as impetus for firms to enhance the latter. However, the results suggest that as competition increases, firms may actually dilute corporate governance than enhance it. Looking back to theory, we see that this is not in

contradiction with institutional and stakeholder theories of governance – possibly, firms have little to gain from consonance with institutional norms, or would not be subject to punitive costs for non-compliance with mandate. However, we find it difficult to reconcile this finding with the tenets of agency and resource-dependence theory, which in fact are the basic theoretical drivers behind our arguments relating competition to corporate governance. An alternative explanation is that our data cover countries where the forces of competition are not as yet sufficiently developed for us to be able to find effects of competition as hypothesized. However, this is an insufficient alternate explanation for the results because our measure of competition is relative to a large set of countries, including many developed economies such as the United States. Therefore, it is not likely that our results are affected by the choice of countries in our dataset, which is indeed a sample representative of the global population.

We therefore explain these results as follows: While our data are in themselves suitably rigorous, they do admittedly cover a number of countries that have recently engendered strong levels of competition – in other words, newly competitive economies. In such economies, it may be possible that firms do not adequately understand the potential benefits of governance, particularly since these benefits may not be well-institutionalized. In countries with a longer history of well-developed competition, the relationship between corporate governance and performance may be recognized and established enough to motivate firm governance behavior, and may therefore result in a positive relationship between competition and governance, as hypothesized. Therefore, while the level of competition in emerging economies is, *per se*, adequate to represent a sample of the global population, indeed there are differences in the processes underlying corporate governance, in such emerging economies.

Contrary to part of hypothesis 8 we find that variation in firm corporate governance scores is higher in conditions of strong regulation and strong competition, than in conditions of weak regulation and strong competition. While we expected that the coercive effects of strong regulation would always override the effects of competition, the results lead us to reconsider this view. We had, it appears, underestimated the isomorphic influences of competition, particularly in conditions where regulation is inadequate. Perhaps, there may be some form of governance threshold, beyond which the marginal costs associated with corporate governance is low, and proximity to this threshold may result in more idiosyncratic responses to environmental pressures. This would lead to variation in corporate governance as evidenced by the data.

These explanations would not have been possible had we relied on a single theory of corporate governance alone. For example, reliance on institutional theory alone would not help us recognize the exceptions to the coercive isomorphic effects of regulation that are apparent in strong regulation and competition conditions. Similarly, reliance on agency theory alone may be inadequate to explain the impetus given to corporate governance in developing economies, where competition may be, comparatively, weaker. This is in keeping with the general trend expressed by many researchers, that a single model of corporate governance may not be applicable across all country contexts. For example, Lee & O'Neill (2003) suggest that the precepts of agency theory, which dominates corporate governance in the U.S context, may not be generalizable to other countries. Perotti & von Thadden (2003) note that governance systems based on debt control, such as in European countries, are different from the Anglo-Saxon context of the U.S. and U.K., where management or equity control is more prevalent; and Berglof & Perotti (1994) suggest that country-specific phenomena, such as the Keiretsu system of corporate

governance can be effective means of ensuring internal discipline given the capital structure of Japanese firms.

Within and Across-country Convergence

We relied on the arguments of Aguilera & Jackson (2003), to propose that when firms within a country tend to be more similar to each other, they are likely to be different from firms in other countries. We find that both within-country convergence, and within-country divergence (implying cross-country convergence), are phenomena that can both be observed in our study. Our paper essentially demonstrates that multiple theories of corporate governance affect outcomes in each different environmental condition. Consequently, we conclude that different governance logics determine firm governance outcomes in each condition. *Prima facie*, this presents arguments in favour of the path dependence view of corporate governance (Bebchuk & Roe, 1999). As different logics shape the evolution of the governance environment in different countries, divergence becomes more likely. However, our results also show that strong competition does result in cross-country corporate governance convergence.

Taking these observations in totality, we conclude that hybrid convergence, through the clustering of firms is the most likely outcome. That is, clusters of firms are likely to be similar in terms of their governance, with variations between clusters within a country. For example, while firms in the top score cluster of each country may be different from other clusters firms in the same country; these firms may be significantly similar across countries. Particularly, our earlier arguments that firms may enhance corporate governance to gain competitive benefits provides support for this view – across countries, top scorers may be motivated by the prospect of competitive benefits, irrespective of the strength or weakness of regulation in those environments, leading to across-country convergence.

CONCLUSION

We draw upon multiple theories of corporate governance, namely, agency resource-dependence, institutional and stakeholder perspectives, to examine the effects of regulation and competition on firm corporate governance. We found that regulation enhances firm corporate governance, and within-country convergence, whereas competition has a negative effect. We explore the interactive effects of regulation and competition, and specifically examined the distribution of corporate governance across four distinct interactive conditions. An interesting avenue for future research would be a longitudinal study that separates the effect of the intensity of competition and regulation (the focus of this study) on firm corporate governance from the temporal effect of the two forces as they gain foothold in a country.

Our paper makes two key contributions. First, it provides an integrative view of corporate governance, whereby the processes underlying corporate governance may vary from country to country. Different governance logics affect firm governance in different environments, leading to variations in firm governance behavior. Reliance on a single theory of corporate governance is therefore inadequate when considering governance in its global context, and also, may preclude consideration of alternatives in the case of even a single country environment. Second, we contribute to the debate on within and across-country convergence of corporate governance, and suggest the occurrence of hybrid convergence as a way to reconcile the two opposing perspectives of corporate governance convergence.

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TABLE 1
Summary of Hypotheses

<i>Hypothesis</i>	<i>Argument</i>	<i>Theoretical Perspective</i>
<i>H1: Regulation positively affects firm CG</i>	Firms comply with regulation in order to avoid punitive measures Firms are required to better manage stakeholders, since the latter tend to be more empowered	Institutional Stakeholder
<i>H2: Competition positively affects firm CG</i>	Firms benefit from reducing lower costs of capital, and reduced threat of takeover Firms benefit from better access to resources	Agency Resource-dependence
<i>H3: The interaction of regulation and competition negatively affects firm CG</i>	Firms may face conflicting pressures since competitive benefits arising from differentiation on the basis of corporate governance will be contingent on the level of regulation	Agency, Institutional, Stakeholder & Resource-dependence
<i>H4: Regulation negatively affects variation in CG</i>	Greater compliance with mandated CG practices in order to avoid punitive measures reduces variation Better protection of stakeholder results in greater overlap of stakeholder groups, and consequently, similarities in stakeholder practices	Institutional Stakeholder
<i>H5: Competition positively affects variation in CG</i>	Firms benefit from reducing costs of capital to levels lower than that of competitors Firms benefit from differential access to resources	Agency Resource-dependence
<i>H6: The interaction of regulation and competition positively affects variation in CG</i>	Firms face conflicting pressures to converge on legally mandated CG and address stakeholder interests, and to distinguish themselves through better CG to enhance differential access to resources, and avoid takeover threats	Institutional, Stakeholder, Resource-dependence & Agency

TABLE 2
Country-wise Distribution of Data

Environment	Country	Number of Firms in Sample
Weak Regulation, Weak Competition	Indonesia	18
	Philippines	20
	Turkey	17
Weak Regulation, Strong Competition	India	79
	Korea	24
Strong Regulation, Weak Competition	Latin America	45
	South Africa	40
Strong Regulation, Strong Competition	China	25
	Hong Kong	38
	Malaysia	47
	Singapore	43
	Taiwan	47
	Thailand	20
Total		463

TABLE 3
Descriptives and Correlations

<i>Variables</i>	Mean	s.d.	Correlations (2-tailed significance)				
			1	2	3	4	5
<i>Firm CG</i>	56.11	12.94	1				
<i>Variation in Firm CG</i>	3.10	5.27	-0.13**	1			
<i>Country</i>	0.72	0.45	-0.20***	0.07	1		
<i>Regulation</i>	15.89	4.63	0.29***	-0.06	-0.69***	1	
<i>Competition</i>	15.20	6.17	-0.07*	0.05	-0.05	0.57***	1
<i>Interaction (Regulation X Competition)^a</i>	0.00	1.00	-0.11**	0.22***	0.26	0.00	0.00

p < .05, ** p < .01, *** p < .001

^a Orthogonalized variable

TABLE 4
Regression Results

Predictors	<i>Firm CG^a</i>	<i>Variation in Firm CG^a</i>
Intercept	18.89*** (4.14)	9.53*** (1.89)
Country	15.99*** (2.21)	-3.34** (1.00)
Regulation	2.91*** (0.25)	-0.48*** (0.11)
Competition	-1.35*** (0.13)	0.24*** (0.6)
Interaction (Regulation X Competition)	-3.37 (0.58)	1.53*** (0.26)
F Statistic	41.72	10.63***
Adjusted R ²	0.26	0.08
R ²	0.27	0.09

** p < .01, *** p < .001. n = 463

^aUnstandardized beta coefficient shown. Standard errors in parentheses.

TABLE 5
Post-hoc One-Way ANOVA Results: Firm CG

Condition (I)	N	Mean (s.d)	Mean Differences in Firm CG ^a			
			1	2	3	4
Weak Regulation- Weak Competition	55	41.43 (11.80)		-23.03***	-11.96***	-16.38***
Strong Regulation- Weak Competition	85	64.47 (8.75)	23.03***		11.07***	6.65***
Weak Regulation- Strong Competition	103	53.4 (10.58)	11.96***	-11.07***		-4.41**
Strong Regulation- Strong Competition	220	57.81 (12.24)	16.38***	-6.65***	4.41**	

***p < .001 level, ** p < .01 level.

^aANOVA F = 50.34, p= 0.00.

TABLE 6
Post-hoc One-Way ANOVA Results: Variation in Firm CG

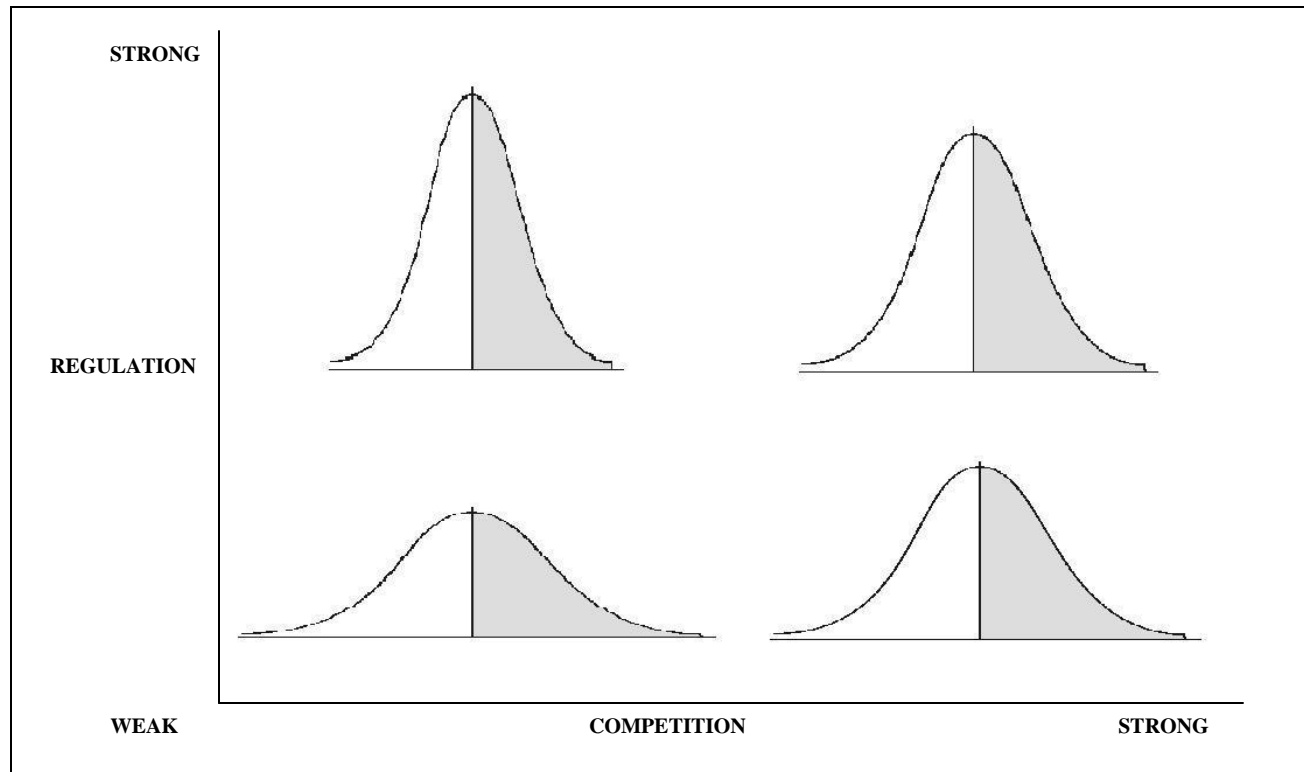
Condition (I)	N	Mean (s.d)	Mean Differences in Variation in Firm CG ^a			
			1	2	3	4
Weak Regulation- Weak Competition	55	7.30 (8.79)		5.96***	5.93***	3.75***
Strong Regulation- Weak Competition	85	1.34 (2.16)	-5.96***		-0.024	-2.2**
Weak Regulation- Strong Competition	103	1.36 (2.41)	-5.93***	0.024		-2.17***
Strong Regulation- Strong Competition	220	3.54 (5.28)	-3.75***	2.2**	2.17***	

***p < .001 level, ** p < .01 level.

^aANOVA F = 21.55, p= 0.00.

FIGURE 1

Effects of Competition and Regulation on Corporate Governance



APPENDIX A

Competition and Regulation in Countries in Sample

China. We find that China occupies the strong regulation and strong competition quadrant in our classification. China's focus on business regulation began a substantial amount of time ago, while the reform of state-owned enterprises (SOE) from the 1990s. This coupled with the social hangover of a communist regime suggests that China may find it easier to introduce and ensure compliance with regulation. However, in keeping with the need to foster a competitive business environment, such regulation has been used to develop an efficient business atmosphere, rather than create a protectionist economic regime. The China Securities Regulatory Commission has made tremendous efforts to increase the levels of transparency disclosure and efficiency of the environment as a whole, in a bid to attract foreign investors. In terms of the competition in the environment, China excels on certain counts, but falls behind on others, suggesting that while the environment is highly competitive, it may not be well balanced. China has exhibited impressive growth rates particularly since its 2001 entry into the WTO. This, coupled with low costs and availability of basic resources such as labor, had led to very high foreign direct investment (FDI). However, capital markets remain very young, with approximately only five percent of the companies in the country listed on its stock exchange. Despite this particular shortcoming, many of these factors suggest that not only is China currently a well-regulated and competitive environment, but also has tremendous future potential, thereby justifying its classification.

Hong Kong. We find Hong Kong classified as being strong on both regulation and competition, on the basis of WCR rankings. Hong Kong follows the common law system, considered as offering the highest protection to shareholders. In addition, its special dual status

has offered a climate that is similar in many ways to Western business environments, with commensurate institutional and regulatory environments. Hong Kong has also thereby positioned itself as a strong service-oriented economy. Services consistently contribute to over 80% of Hong Kong's GDP, and this coupled with excellent infrastructure, offers a highly efficient business environment, leading to its strong competition categorization in our study.

India. Not surprisingly, our classification shows India's regulatory climate as weak. In general judicial efficiency is low, despite the extensive amounts of legislation found in India, and its common law tradition. Business legislation in particular facilitates bureaucratic inefficiency, further coupled with political interference. India also fares poorly in terms of its levels of corruption. However, India falls into the strong competition category. While GDP per capita is low, Purchasing Power Parity (PPP) is quite high. India's growth potential for direct investment abroad, exports of good and services, and overall resilience of the economy makes it an attractive environment. In particular, capital markets are very well developed, with a large percentage of domestic companies listed on stock exchanges. Labor is well-skilled and available. In general, India does well in terms of the availability of market intermediaries despite need to improve business infrastructure, thereby attracting foreign investors.

Indonesia. Indonesia was one of the worst hit countries during the Asian Financial Crisis, and its recovery remains incomplete, leading to its position in the weak regulation, weak competition quadrant in our dataset. Per capita GDP is one of the lowest of all countries in our dataset, at USD 740. While the Indonesian Bank Restructuring Agency (IBRA) has taken measures to ensure a recovery of capital markets, huge debts are still outstanding. In terms of its regulation, Indonesia follows the French legal tradition, observed by researchers to be the poorest for shareholder protection. This coupled with judicial inefficiency and political

interference in dealing with post-crisis recovery lawsuits and regulation places Indonesia in the weak regulation condition.

Korea. South Korea ranks in our dataset as being weak on regulation but strong on competition. With a German legal tradition, Korea affords only moderate protection to shareholders, as compared to Common Law traditions. However, Korea's recovery, post the Asian Crisis, has been laudable. With the high proliferation of Internet Technology amongst its population, South Korea is emerging as a strong niche competitor in the IT industry. This also allows for increased development of capital markets through online trading and operations. Corporate Sectors reforms, which re-examined the Chaebol system and allowed for operation of market principles, and a strong emphasis on Foreign Direct Investment, support the strong competition categorization of Korea.

Latin America. The countries of Latin America that we include in this study, namely Brazil, Chile and Mexico, all fall into the strong regulation and weak competition cell, on the basis of the WCR scoreboard. Despite histories of political strife, countries in Latin America have made efforts to ameliorate regulation. The process has been further supplemented by political reforms. While these have not yet resulted in significant increase in the competition in the environment, regulatory scores for these countries tend to be high. The emphases on ensuring sustainable development, and dealing with issues of poverty and population have been a consistent priority in recent years. However, issues relating to the liberalization of economies, and free trade have continued to restrict the development of a competitive environment.

Malaysia. Malaysia displays consistently high per capita GDP amongst Asian countries, well over 3000 USD. Its legal system is predominantly influenced by Common Law. Malaysia's current ranking as strong on regulation and competition, on the basis of WCR components is also

a function of its economic and regulatory resilience. Despite inflation and other impacts post the Asian Crisis, legal proceedings against political leaders and members of government, and suggestions that its recovery policies were motivated by private interests, Malaysia has been successful in curbing inflation and increasing its foreign exchange reserves.

Philippines. The current legal system of the Philippines is based on the French legal tradition, setting the tenor for lower shareholder protection. Furthermore, at the time period in question, the Philippines was the focus of political unrest, threats of rebellion and money laundering, all making for poor regulation. Philippines also had high inflation, high interest rates and currency instability, coupled with fiscal deficit. Since then however, the country has seen a period of political change, with the new government taking some measures to change the economic situation through liberalization and better business regulation, making the Philippines an interesting country to watch as it goes through its transition, despite its position in the weak regulation and weak competition cell, in our study.

Singapore. Singapore consistently ranked as having a strong competitive environment, over diverse indicators and many years. With high investment in infrastructure, and numerous beneficial bilateral trade agreements, Singapore has since long been able to maintain its position as a highly ranked business environment, in terms of its efficiency and ease of transaction. Its emphasis on entrepreneurship and emerging industries, such as biotechnology, provide Singapore considerable current and long-term economic promise. The origins of Singapore's legal systems are in Common Law. A highly stable political environment, strong emphasis on business legislation and high quality of national governance, all contribute to Singapore's classification as a strong regulation environment.

South Africa. In the post-apartheid era South Africa's priorities have involved nation rebuilding and the provision of basic infrastructure and amenities to its people. Given this focus, it is not surprising that South Africa falls into the strong regulation category. However, as an economy that already lags due to the unusual lack of strong relations with many nations over the years, South Africa has been able to do little to boost its competitiveness. Costs of investment are high, and capital is not easily available. However, given that the country's economic future may well depend on exports, the strong focus on education in South Africa serves not only a social, but also economic purpose.

Taiwan. Developing business relationships with China have further boosted the strong competitive environment in Taiwan. With large FDI flows into Taiwan from China over the last decade, the economy continues to be strong. Taiwan is an instance of Western business practices that have been integrated into the Asian context, leaving little concern on the efficiency of conducting business in the country. Despite hailing from a German law tradition, Taiwan is strong in regulation, given the transparency and ease of conduct of business in its environment. This offers support for our classification of Taiwan as being strong on both competition and regulation, in this study.

Thailand. Thailand has been one of the countries to recover best from the Asian Financial Crisis, particularly due to its dual emphasis on domestic consumption as well as international trade. Thailand has a liberal investment regime and does not impose export restrictions, foreign equity limits for manufacturing, or local content requirements. It also has lucrative taxation systems for foreign investors and expatriates. By offering the strongest benefits in regions, which are the least developed, Thailand aims to achieve all around economic health. With strong economic growth rates, spurred by credit spending, Thailand ranks as a strong

competitive environment, in our dataset. Furthermore, in recent times Thailand has enjoyed comparative political stability, leading to political reforms and clear policies that facilitate business. This coupled with its Common Law background place it in the strong regulation category.

Turkey. Democratic tensions have highlighted a significant portion of Turkey's history, and these continue to affect its regulatory environment. Characterized by purported government inefficiency and high levels of corruption, Turkey ranks as weak on regulation. Its involvement in international territorial and sovereignty issues, notably the case of Cyprus Island, also contribute to overall uncertainty in its regulatory and competitive environments. The year 2001 saw the height of an economic crisis for Turkey, thereby explaining Turkey's position in the weak competition category. While notable for its high inflation rates, substantial declines in these rates can be observed in years since the crisis. With structural reforms and laws supporting Central Bank autonomy and business transparency, Turkey is interesting as a potential emerging market.