

# Corporate Governance, Investor Protection, and Performance in Emerging Markets

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## Abstract:

Recent research studying the link between law and finance has concentrated on country-level investor protection measures and focused on differences in legal systems across countries and legal families. We use recent data on firm-level corporate governance rankings across 14 emerging markets and find that there is wide variation in firm-level governance across countries in our sample and that the average firm-level governance is lower in countries with weaker legal systems. We explore the determinants of firm-level governance and find that governance is correlated with the extent of the asymmetric information and contracting imperfections that firms face. We also find that better corporate governance is highly correlated with better operating performance and market valuation. Finally, we provide evidence that firm-level corporate governance provisions matter more in countries with weak legal environments. These results suggest that firms can partially compensate for ineffective laws and enforcement by establishing good corporate governance and providing credible investor protection.

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## **1. Introduction**

Previous research studying the link between law and finance has concentrated on corporate governance around the world and focused on differences in legal systems across countries and legal families. This rapidly developing body of literature began with the finding that the laws that protect investors differ significantly across countries, in part because of differences in legal origins (see La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1998). Recent literature finds that cross-country differences in laws and their enforcement affect ownership structure, dividend payout, availability and cost of external finance, and market valuations.<sup>1</sup>

However, many provisions in country-level investor protection laws may not be binding since firms have the flexibility in their corporate charters and bylaws to either choose to “opt-out” and decline specific provisions or adopt additional provisions not listed in their legal code (see Easterbrook and Fischel, 1991; Black and Gilson, 1998). For example, firms could improve investor protection rights by increasing disclosure, selecting well-functioning and independent boards, imposing disciplinary mechanisms to prevent management and controlling shareholders from engaging in expropriation of minority shareholders, etc. Therefore, it is likely that firms within the same country will offer varying degrees of protection to their investors.

A number of recent papers have studied firm-level corporate governance mechanisms, but most of these studies have concentrated almost exclusively on OECD and US countries (see Shleifer and Vishny, 1997, and Maher and Andersson, 2000, for comprehensive surveys). For example, a recent paper by Gompers, Ishi, and Metrick (2001) used differences in takeover defense provisions to create a corporate governance index of US firms and found that firms with stronger shareholder rights have better operating performance, higher market valuation, and are

more likely to make acquisitions. However, until recently there was no empirical evidence on the differences in firm-level governance mechanisms across firms in emerging markets. An exception is Black (2000), which found that the governance practices of Russian corporations are strongly related to implied value ratios.

In addition to the recent attention given to differences in legal systems across countries, another interesting empirical question is whether there is variation in firm-level governance standards within countries and the relationship between firm-specific governance mechanisms and country-level laws governing investor protection. The relationship between the country-level legal infrastructure and firm-level corporate governance mechanisms is far from obvious. One supposition is that firms in countries with weak laws would want to adopt better firm-level governance to counterbalance the weaknesses in their country's laws and their enforcement and signal their intentions to offer greater investor rights. This would suggest a negative correlation between the strength of firm-level governance and country-level laws. A second possibility is that in countries with weak laws the degree of flexibility of firms to affect their own governance is likely to be smaller (i.e. the firm is likely be constrained by the country-level legal provisions), which would imply a positive correlation. This question has not previously been empirically studied.

The second question that we address is *which* firms within countries have relatively better governance? LLSV (1998) argued that greater investor protection increases investors' willingness to provide financing and should be reflected in lower costs and greater availability of external financing. This suggests that we should find that firms with the greatest needs for financing in the future will find it the most beneficial to adopt better governance mechanisms

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<sup>1</sup> For example, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1999a, 1999b, and 2000, further referred to as LLSV), Claessens, Djankov, and Lang (2000), Berkowitz, Pistor, and

today. Finally, we address the most important – and difficult – question, which is whether or not firm-level differences in corporate governance matter for future performance, market valuation, and access to external finance. This paper is a first attempt to address some of these questions and suggest avenues for future research.

The surge of interest in the topic of corporate governance among investment banks, rating agencies, and other specialized financial institutions has made it possible to address these questions empirically as a number of private firms have started to collect firm-level data on differences in corporate governance across firms in different countries.<sup>2</sup> In a recent report, Credit Lyonnais Securities Asia (further referred as CLSA) calculated an index with corporate governance rankings for 495 firms across 25 emerging markets and 18 sectors.<sup>3</sup> The descriptive statistics presented in the CLSA report show that companies ranked high on the governance index have better operating performance and higher stock returns. We use the governance rankings produced by CLSA to further investigate the relationship between firm-level governance, other firm-level characteristics, and the country-level legal environment.

Our study proceeds in two parts. In the first part we investigate the determinants of firm-level governance. First, we observe that there is wide variation in firm-level governance, although the degree of variation is not systematically related to countries' legal environments. In other words, we find that there are well-governed firms in countries with weak legal systems and badly governed firms in countries with strong legal systems. However, we find that the overall level of firm-level governance is strongly positively related to country-level measures of investor

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Richard (2002), Lombardo and Pagano (2000), and Beck, Demircuc-Kunt, and Levine (2001).

<sup>2</sup> In addition to the data used for this paper, described below, similar governance rankings were produced by Deutsche Bank for Latin American countries, Deminor Rating for Western European countries, and more recently S&P 500 has entered the governance ranking market and is producing rankings for both developed and emerging markets.

protection, i.e. average governance is higher in countries with stronger legal protection. For example, increasing the country-level index of efficiency of the legal system from the low to the median value increases the average firm-level governance by about half a standard deviation, a large and economically significant effect. This supports the argument that firms have limited flexibility to affect their governance, which implies that improving the country-level efficiency of the legal system is likely to lead to an increase in the average firm-level governance.

Next, we investigate the firm-level determinants of governance and find support for the hypothesis that a growing firm with large needs for outside financing has more incentive to adopt better governance practices in order to lower its cost of capital. We also investigate whether differences in firm-level contracting environments affect a firm's choice of governance mechanisms, in line with arguments put forth in Himmelberg, Hubbard, and Palia (1999). They argued that some firms would find it easier to expropriate from minority shareholders due to the nature of their operations; therefore, these firms would find it optimal to impose ax-ante stricter governance mechanisms to prevent ex-post expropriation. For example, the composition of the assets of a firm will affect its contracting environment because it is easier to monitor and harder to steal fixed assets (i.e. machinery and equipment) than "soft" capital (i.e. intangibles, R&D capital, and short-term assets, such as inventories.) Therefore, firms operating with higher proportions of intangible assets may find it optimal to adopt stricter governance mechanisms to signal to investors that they intend to prevent the future misuse of these assets. We find support for this hypothesis using a capital intensity measure, which is significantly negatively correlated with governance.

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<sup>3</sup> Credit Lyonnais Securities Asia report entitled "Saints and Sinners: Who's got religion", April 2001.

In the second part of our paper we investigate the relationship between governance and performance. We find that better corporate governance is associated with higher operating performance (ROA) and higher Tobin's-Q. After including country fixed effects we find that the correlation of performance measures with governance becomes twice as large and statistically more significant. This suggests that improvements in governance *relative* to the country-average are more important than the absolute value of the index.

Finally, we explore the cross-country nature of our sample and look at the interaction of firm-level governance and country-level investor protection. We test whether good corporate governance matters more or less in countries with weak shareholder protection and judicial efficiency. One hypothesis is that in countries with weak judicial efficiency, additional charter provisions would not be enforced and therefore firms would be powerless to independently improve their investor protection. In this case we should find that firm-level governance matters less in countries with weak legal systems. An alternative hypothesis is that in countries with weak legal systems, investors would welcome even small improvements in governance relative to other firms, in which case we should find that good governance matters more in bad legal environments. This is consistent with the assertion in Doidge, Karolyi, and Stulz (2001) that by establishing good governance mechanisms the controlling shareholders give up more of their benefits of control in countries where such benefits are high (i.e. investor protection is low), which will be reflected in measures of performance and market valuation. Our results suggest that good governance practices are more important in countries with weak shareholder rights and inefficient enforcement. This finding has strong policy implications and suggests that recommending to firms to adopt good governance practices is even more important in countries with weak legal systems.

An important caveat on our results showing the link between governance and performance is the likely endogeneity of corporate governance practices. For example, as we have already argued, a growing firm with large needs for outside financing has more incentive to adopt better governance practices in order to lower its cost of capital. These growth opportunities would also be reflected in the market valuation of the firm, thus inducing a positive correlation between governance and Tobin's-Q.<sup>4</sup> Since our governance data have no time-variation we cannot address the issue of causality directly and leave this issue for future research. However, we attempt to mitigate this problem by adding several control variables that could proxy for growth opportunities such as size, average growth in sales, and the rate of investment and find that our governance results are not spuriously caused by these omitted variables. We also control for capital intensity in our performance regressions and the governance results remain significant. Thus, although the concern of reverse causality is a clear drawback of our governance-performance results, at a minimum we confirm that our results are not caused by omitted variable bias and leave establishment of causality for further research.

The paper proceeds as follows: Section 2 describes the CLSA corporate governance survey and summarizes our firm- and country-level data. Section 3 discusses the potential endogeneity of governance and reports results on the determinants of corporate governance behavior. Section 4 reports our results, which include correlation tests between measures of corporate governance and legality, Tobin's-Q, and return on assets (ROA.) Section 5 concludes.

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4 Similar endogeneity problem arises in the studies of ownership and performance, as argued by Himmelberg, Hubbard, and Palia (1999) who propose panel data techniques and instrumental

## 2. Data

The CLSA report includes corporate governance (CG) rankings on 495 companies in 25 countries. The CLSA sample is selected based on two criteria – firm size and investor interest.<sup>5</sup> The CG ranking compiled by CLSA is a composite of 57 qualitative, binary (yes/no) questions, designed to avoid subjectivity. Appendix 1 reports an abbreviated version of the questionnaire. Each question is constructed such that answer ‘Yes’ adds one point to the governance score. The analysts were given strict instructions to answer negatively if they had any doubts or if there were any unresolved controversies. According to CLSA, about 70% of the questions are based on objective facts and the remaining questions represent analysts’ opinions. Unfortunately, reliance on analysts' opinions worsens the endogeneity problem in the governance-performance regressions, as it is possible that analysts could rely on past performance to form their opinions.<sup>6</sup> However, most of the subjective questions refer to the historical experience of the firm and specifically ask whether there have been any violations or controversial disputes over shareholder rights in the past, usually within the past five years (for example, questions 6, 20, 36-38, 40, 42, 47). These questions are likely to reflect the reputation of the company, i.e. whether in past years the company had established a reputation for respecting minority shareholder rights. Such reputational characteristics can be considered a part of corporate governance practices and, if past behavior is any indication of future behavior, could serve as a useful measure of corporate governance behavior.

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variables to address this question.

<sup>5</sup> A recent paper by Khanna, Korgan, and Palepu (2001) uses this data to study convergence of corporate governance practices across countries and confirms the sample selection criteria based on their detailed study of India.

<sup>6</sup> This bias is likely to be worse for regressions including past returns since analysts answering the questions are most concerned with return performance, as it appears that the main purpose of the CLSA original report was to give buy/sell recommendations based on the governance rankings. This is the main reason why we do not study returns as a measure of performance.

The questions in the CLSA report cover seven broad categories: management discipline, transparency, independence, accountability, responsibility, fairness, and social awareness. A representative questions for each category is listed below:

1. Discipline: *Is expected remuneration for executive(s) tied to the value of the shares?*
2. Transparency: *Does the company publish its Annual Report within four months of the end of the financial year?*
3. Independence: *Is the Chairman an independent, non-executive director?*<sup>7</sup>
4. Accountability: *Are the board members and members of the executive/management committee substantially different?*
5. Responsibility: *Does the company have a known record of taking effective measures in the event of mismanagement? Are there mechanisms to allow punishment of the executive/management committee in the event of mismanagement?*
6. Fairness: *Are voting methods easily accessible (i.e. proxy voting)? Do all equity holders have the right to call General Meetings?*
7. Social Awareness: *Is the company explicitly environmentally conscious?*

Our main governance index, further referred to as GOV, is the sum of first six categories and excludes the social awareness category, which is not relevant for corporate governance (although our results are robust to the inclusion of this category). Furthermore, we do not study the disaggregated indices, since the categories seem to overlap and are categorized with some subjectivity. (For example, question 28 could easily belong to the Independence section; questions 37 and 39 could belong to the Discipline section; question 45 to Transparency section; etc.) Also, the distinction between the Independence and Accountability sections is imprecise and the Responsibility and Fairness sections both reflect minority shareholder rights (as are the questions 20 and 22 from the Independence section).

In order to include firm-level accounting data, we merged the CLSA data with Worldscope data (June 2001). To avoid the anomalous period of the Asian Crisis we included

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<sup>7</sup> Independence of directors must be demonstrated by either being appointed through nomination of non-major shareholders or having on record voted on certain issues against the rest of the Board. If no evidence of independence, other than being stated to be so by the company and the director(s), then answer "No".

only firms that had available accounting data beginning in at least 1998.<sup>8</sup> We began with 451 firms with non-missing accounting data. After excluding 50 banks, 20 firms in Eastern Europe and China (excluded because of unavailable legal indices), and seven firms in countries with less than three firms each (Argentina, Columbia, Greece and Mexico), our sample was reduced to 374 firms in 14 countries – Brazil, Chile, Hong Kong, India, Indonesia, Korea, Malaysia, Pakistan, Philippines, Singapore, South Africa, Taiwan, Thailand, and Turkey. We also excluded some outlier observations in the individual regressions, which we describe in the relevant sections.<sup>9</sup> We also added a dummy indicating if a firm trades American Depository Receipts (ADRs) in the United States.<sup>10</sup>

The distribution of our GOV index across countries is shown in Table 1, Panel A. As shown, our sample is not equally distributed across countries - 68% of firms are in East Asia, 19% of firms are in South Asia, and 11% of firms are in Latin America. Mean GOV rankings overall are 54.16 and vary from a country average of 31.85 in Pakistan to 66.53 in South Korea. There is also great variation within countries – for example, the corporate governance ranking of firms in Pakistan varies from 17.25 to 66.68. These summary statistics highlight the firm-level variations in corporate governance practices even within countries and families of legal origins.

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<sup>8</sup> Our sample contains 29 firms with 1998 as the last available data. We include in all regressions a dummy for year 1998 to control for time effects. The dummy is always negative and significant (it is not reported) but does not affect the significance of our governance results.

<sup>9</sup> As is commonly found, the distribution of Tobin's-Q is significantly skewed to the right with some firms having extremely high values, which could significantly influence our results without representing the common patterns. Therefore, we excluded firms with Tobin's Q above 10 (which excludes 17 firms - slightly less than 5% of the sample) and firms with ROA above the 99<sup>th</sup> and below the 1<sup>st</sup> percentiles (6 firms). To use as many observations as possible we exclude only Q outliers in Q regressions and ROA outliers in ROA regressions – therefore the sample in ROA regressions is slightly different from the sample in Q regressions. In addition, some of the control variables are missing for some observations, which further causes slight variation in the sample size across regressions.

<sup>10</sup> We identify ADRs traded on the NYSE, AMEX, and NASDAQ using the JP Morgan website: [www.adr.com](http://www.adr.com).

We use three country-level measures of legal efficacy. The first is Judicial Efficiency, which is an index constructed by the International Country Risk Guide (2000). The second is Shareholder Rights, which is the sum of dummies identifying one-share/one-vote, proxy by mail, unblocked shares, cumulative vote/proportional representation, preemptive rights, oppressed minority, and percentage of shares needed to call a shareholders meeting (LLSV, 1998.) The third is Legality, which is an index of the strength of the legal system and institutional environment constructed as a weighted average of Judicial Efficiency (identical to our first index), Rule of Law, Corruption, Risk of Expropriation, and Risk of Contract Repudiation (this index is constructed using principal components analysis by Berkowitz, Pistor, and Richard, 2002.) We use three different measures in order to cover separately the existence of laws (Shareholder Rights) and the effectiveness of their implementation (Judicial Efficiency), as well as the overall legal environment (Legality). Summary statistics and sample distributions for the legal indicators are given in Table 1, Panel A.

We use two main performance measures: Tobin's-Q as a measure of market valuation of the firm and return on assets (ROA) as a measure of operating performance.<sup>11</sup> Summary statistics and sample distributions for Tobin's-Q and ROA are given in Table 1, Panel B. For 1999, the average Tobin's-Q is 2.09 and varies from country-average 1.16 in Turkey to 3.67 in Taiwan. The median Q (1.39) is slightly higher than the median reported in other studies (for example LLSV, 1999) reflecting the overall good performance of the global economy in 1999. The standard deviation is 1.68, reflecting the significant variation in performance across firms. The

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<sup>11</sup> Tobin's-Q is defined as the market value of assets (calculated as book value of assets minus book value of equity plus market value of equity) over book value of assets, and return on assets (ROA) is defined as net income over total assets. Other measures of operating performance – such as gross margin and return on equity – give similar results.

country-average ROA is 0.08, with the highest average performance of 0.11 in India and the lowest performance of 0.01 in Brazil.

### **3. Determinants of Governance**

#### *3.1. Hypotheses*

As discussed in the introduction, corporate governance is likely to be endogenously determined. In this section we discuss variables that in theory could be associated with firms adopting better governance mechanisms and present empirical results in support of these theories. We deliberately do not include any performance-related measures as governance determinants as we will study governance-performance relationships in the next section. Recognizing the endogeneity of the governance, we can only interpret all our results as partial correlations. However, the exercise in this section helps us better understand the potential sources of this endogeneity.

Our discussion closely follows Himmelberg, Hubbard, and Palia (1999), who argued that the degree of managerial ownership is endogenously determined by a firm's contracting environment and therefore ownership-performance regressions could spuriously pick up the effect of this unobserved heterogeneity. As managerial ownership is only one of many governance mechanisms, this argument could be easily transferred to other mechanisms such as managerial compensation, board structure, disclosure, and other minority shareholder protections that are included in our governance index.

We consider several causes for the variation in contracting environments. The most obvious is the overall country-level measure of shareholder rights and their enforcement. For example, if a country's laws offer weak shareholder protection it might be costly for firms to adopt different provisions in their corporate charters because it will be difficult for investors and

judges to understand non-standard contracts, as argued by LLSV (1998). Therefore, firms in countries with overall weak legal environments may not have much flexibility to improve their own investor protection and may consequently have lower corporate governance indices, on average. In this case we should expect a positive relationship between the quality of country-level legal systems and the average of firm-level governance indices within each country. In the extreme case, for example, firms would be completely powerless to change the overall legal environment with internal governance mechanisms. In another extreme, if firms could completely “overwrite” the legal code in their own contracts, we would observe better governance in countries with bad legal systems as these firms would be more in “need” of good governance mechanisms to compensate for their bad legal systems. In this case we would observe a negative relationship between country-level legal systems and firm-level governance mechanisms. However, this case is very unlikely as a large body of evidence shows that the legal system does matter, most likely because if the enforcement of contracts is weak, then firms will be unable to “overwrite” their country’s legal system and their flexibility to improve their corporate governance would be limited.<sup>12</sup>

In addition to country-level differences in legal efficiency, it is likely that there will be variations across firms within contracting environments, as initially proposed by Himmelberg, et al. (1999) and further developed by Himmelberg, Hubbard, and Love (2001). These papers suggest that firm-level characteristics affect the level of investor protection. For example, the composition of a firm’s assets will affect its contracting environment because it is easier to monitor and harder to steal fixed assets (i.e. machinery and equipment) than “soft” capital (intangibles, R&D capital, and some short-term assets, such as inventories). Therefore, a firm

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<sup>12</sup> In a related study Dimitrov (2001) shows that firms in countries with weak legal environments are less likely to have independent directors, since firms are unable to show credible

operating with a higher proportion of intangible assets may find it optimal to adopt stricter governance mechanisms to prevent misuse of these assets, i.e. we should observe negative correlation between the proportion of fixed assets and governance. It is important to keep this relationship in mind when we later estimate the effect of governance on performance, since the level of intangibles may also result in higher Tobin's-Q since, in general, the market values intangibles higher than their book values. Similarly, operating performance should be higher since the denominator (for example, total assets) does not fully account for all intangibles. In our performance regressions we control for asset composition and find that the effect of governance on performance is not driven by this source of heterogeneity. We use fixed capital (i.e. property plant and equipment) to total sales ratio, denoted  $K/S$ , as a measure of the relative importance of fixed capital in the firm's output.<sup>13</sup>

Another source of endogeneity could arise because of differences in unobserved growth opportunities. Firms with good growth opportunities will need to raise external financing in order to expand and may therefore find it optimal to improve their governance mechanisms as better governance and better minority shareholder protection will be likely to lower their costs of capital.<sup>14</sup> For example, if Tobin's-Q is higher for firms with good growth opportunities, this could also be a cause of endogeneity of governance in the performance regressions and result in positive spurious correlations with governance. Unfortunately there is no good measure of the growth opportunities besides Tobin's-Q. As an arguably imperfect measure, we use the average

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commitments not to expropriate.

<sup>13</sup> Himmelberg, et al. (1999) also used research and development intensity (R&D) and advertising expenses as additional measures of the "intangibility" of the assets. Unfortunately, the Worldscope database does not include advertising expenses as an independent variable and R&D amounts are reported as missing for most firms in our sample.

<sup>14</sup> See La Porta, et al. (1999a), Lombardo and Pagano (2000) and Himmelberg, Hubbard, and Love (2001) among others on the relationship between investor protection and the cost of capital.

real growth rate in sales for the last three years, denoted SalesGR, as a proxy for future growth (and growth opportunities).<sup>15</sup>

We also explore the effects of differences in firm size on governance. The effect of size is ambiguous as large firms may have greater agency problems (because it is harder to monitor them or because of the “free cash flows” argument of Jensen, 1986) and therefore need to compensate with stricter governance mechanisms. Alternatively, small firms may have better growth opportunities and, as implied by the argument above, greater need for external finance and better governance mechanisms. For this reason we also use size as a control variable in the Tobin's-Q regressions. We use the natural log of sales (in US\$), denoted Log(SalesUS) as a measure of firm size.

We also include a dummy indicating if a firm trades American Depository Receipts (ADRs). There are several reasons to expect that firms that trade in the US should have better corporate governance rankings. First, firms listed on a US exchange are required to comply with US GAAP accounting standards, which might improve their transparency.<sup>16</sup> Second, firms that list shares on a US exchange are subject to many SEC laws and regulations that protect minority shareholders. Cofee (1999), Stulz (1999) and Reese and Wesibach (2001) find that firms in countries with weak minority shareholder rights list in the US in order to better protect foreign investors. We expect that since reporting standards and investor protection in the US are much

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<sup>15</sup> Past growth rates will be correlated with future growth if there are investment adjustment costs, “time to build” (i.e. it takes several periods to make new investment fully operational), or if the shocks to productivity are serially correlated.

<sup>16</sup> For example, recent papers by Cantale (1996), Fuerst (1998) and Moel (1999) argue that firms list in the US in order to signal their higher quality to investors through greater disclosure and transparency and higher accounting standards.

higher than in most other countries, firms in emerging markets would be required to improve their corporate governance provisions in order to list overseas.<sup>17</sup>

Finally we test whether the relationship between ADR issuance and governance varies with differences in country-level investor protection and enforcement. For example, in a country with a weak legal system, a firm issuing ADRs would need to make more changes to its governance to be able to meet the more stringent disclosure and investor protection requirements. This suggests that the increase in the governance index for ADR firms will be larger in countries with weaker legal system, i.e. the interaction of ADR and Efficiency is expected to be negative.

To summarize, our model to study governance determinants is given by:

$$\begin{aligned}
 GOV_f = & \mathbf{b}_1 \text{Log}(\text{Sales})_f + \mathbf{b}_2 \text{SalesGr}_f + \mathbf{b}_3 K/S_f + \mathbf{b}_4 \text{LegalSystem}_c + \mathbf{b}_5 \text{ADRs}_f \\
 & + \mathbf{b}_6 \text{ADRs}_f * \text{LegalSystem} + \mathbf{g}
 \end{aligned} \tag{1}$$

As previously implied, we expect  $\mathbf{b}_2 > 0$ ,  $\mathbf{b}_3 < 0$ ,  $\mathbf{b}_4 > 0$ ,  $\mathbf{b}_5 > 0$ ,  $\mathbf{b}_6 < 0$  and  $\mathbf{b}_1$  is ambiguous. We have three different country-level indicators for the Legal System: the laws on the book (Shareholder Rights) and the effectiveness of their implementation (Judicial Efficiency), as well as the overall legal environment (Legality). Since Efficiency and Legality measures are both indicators of the quality of legal enforcement, we do not include them together, but we include shareholder rights in combinations with either Efficiency or Legality.

### 3.2 Evidence

We begin our exploration of the relationship between the distribution of firm-level governance and country-level indicators with graphs and descriptive statistics. Figure 1 presents

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<sup>17</sup> Unfortunately, we are unable to establish causality – it is possible that only the firms with good governance issue ADR's, so our results should be interpreted as a partial correlation and not a causal relationship.

a Box-and-Whisker plot of governance by country and shows that there is wide variation in the governance rankings in most countries in our sample. The countries are sorted based on their index of Legality and the plot shows that the degree of the variation in governance within countries does not appear to be systematically related to the country-level measures of legal effectiveness. Figure 2 presents a plot of country-average values of the firm-level governance index plotted against the legality index. The relationship is strongly positive, indicating that countries with better legal systems have on average higher firm-level governance. The correlations presented in Panel C confirm the evidence in the figures. The correlations of country-average governance with any of the legal indicators are significantly positive, while the correlations of standard deviations and the interquartile range with legal indicators are (marginally) insignificantly negative, indicating that, if anything, there is more variation in firm-level governance in countries with weaker legal systems.

We next begin a more formal investigation. Table 2 reports our estimates of the governance determinants and finds all signs consistent with our hypotheses. In Column 1 we include only our three firm-level variables and find that size is positive and marginally significant, while average growth rate and capital intensity have predicted signs and are significant at 1%. However, the explanatory power of this regression is low, with an adjusted  $R^2$  of only 0.06. In Column 2 we add an ADR dummy, which is significant, confirming our prior that firms that list in the US have relatively higher corporate governance standards. The size variable is no longer significant, but this is not surprising since larger firms are more likely to list abroad.

In Column 3 we include country-level measures of the legal environment – shareholder rights and efficiency of the legal system – and the coefficients of these variables are positive and

significant, although shareholder rights is weakly significant at 10% (using the Legality index instead of Efficiency produces very similar results). Adding these country-level variables doubles the explanatory power of the regression ( $R^2$  raises to 0.15). Thus, we can conclude that firms in countries with weak overall legal system have on average lower governance rankings. The coefficients from the regression of governance on the efficiency index alone (not reported) imply that an increase in efficiency from the country with the lowest efficiency (Indonesia) to the country with the median efficiency (South Africa) results in an improvement in average governance ranking of 7.7, or about half a standard deviation, which is an economically significant effect. These results support the theoretical arguments in Shleifer and Wolfenson (2002) that firms are unable to completely replicate a good legal environment on their own, but must depend on a supporting efficient judicial system.

In Column 4 we add the ADR dummy and the interaction of the ADR dummy and Efficiency and find that the interaction term is significantly negative (at 5%). This confirms our intuition that firms that issue ADRs have better governance, and the effect is stronger in countries with weak legal systems.<sup>18</sup> In Column 5 we include both firm-level and country-level variables together and find that sales growth, capital intensity, and both measures of enforcement remain significant while size and shareholder rights become insignificant at conventional levels (size becomes insignificant in Column 4 and shareholder rights in Column 5). Finally, instead of country-level legal indicators we run a regression with country dummies in Column 7 and find that capital intensity and growth rates are still significant while size is not. The  $R^2$  in this model is much larger, implying that unobserved country effects account for large differences in the

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<sup>18</sup> These results are larger and more significant for firms that trade on a US exchange (NYSE, AMEX or NASDAQ) than for firms that trade 144a or OTC. This is not surprising as exchange listed firms are likely to have greater disclosure and shareholder protection requirements and is consistent with findings in Doidge, et al., 2001.

variation in governance rankings. However, over 60% of this variation is not explained by country effects, suggesting that firms have enough flexibility to affect their corporate governance and investor protection.

To summarize, we find that (1) firms in countries with weak overall legal systems on average have lower governance rankings, however there is no systematic relationship between the variation in firm-level rankings and country-level legal efficiency; (2) past growth rates are positively associated with good governance; (3) firms with higher proportions of fixed assets have lower governance; and (4) firms that trade shares in the US have higher governance rankings, especially so in countries with weak legal systems. These results confirm our intuition of the endogeneity of governance and emphasize that it is important to control for these factors in our performance regressions to ensure that the governance effect on performance is not spuriously caused by any of these omitted factors.

## **4. Governance and Performance**

### *4.1. Hypotheses*

In this section we study the relationship between firm-level governance, the country-level legal environment, and firm performance. Our first hypothesis tests the correlation between firm governance and equity valuation:

$$Q_f = \mathbf{a} + \mathbf{b}_I(Gov_f) + \mathbf{g} \quad (2)$$

Where  $Q_f$  equals Tobin's-Q and  $Gov_f$  equals the firm-level corporate governance ranking. To test the robustness of this relationship we sequentially add 1-digit industry dummies, country dummies and other firm-level control variables discussed in Section 3. We then repeat the same exercise using ROA as an alternative performance measure.

Second, we test whether the country-level legal environment is correlated with market and operating performance and whether firm-level governance is robust to controlling for country-level legal efficiency. Regardless of individual firm-level investor protection, firms are also subject to country-level regulatory and legal environments that differ in laws and enforcement. Previous literature has shown the legal environment to be related to firm performance on the international, country, and state levels (Lombardo and Pagano, 2000, La Porta et al., 1999, and Daines, 2001, respectively). This relationship can be explained for a number of reasons: First, block shareholders are more likely to exploit minority shareholders in countries that have weaker protection of minority shareholders. Second, firm-level protection of minority rights is less likely to be effective if legal enforcement and judicial efficiency is weak. We address this concern by first, replacing the firm-level governance index in our model with country-level legal indicators and second, including the two measures simultaneously to test for their relative importance.

Our third hypothesis tests the effect of the effect of the interaction of corporate governance and judicial efficiency on firm valuation. We include in this regression:

$$Q_f = \mathbf{a} + \mathbf{b}_1(Gov_f) + \mathbf{b}_2(Eff_c) + \mathbf{b}_3(Gov_f*Eff_c)_f + \mathbf{g} \quad (3)$$

where  $Gov$  equals the firm-level corporate governance ranking;  $Eff_c$  equals the country-level judicial efficiency; and  $(Gov*Eff)_f$  equals the interaction. We interpret the interaction term to identify whether corporate governance matters more or less in countries with weak legal enforcement (an alternative interpretation is explored below). There are two alternative hypotheses relating to the differential effect of governance in countries with different levels of investor protection. One hypothesis is that in countries with weak law enforcement the adoption of firm-specific governance-related provisions could be less effective than in countries with good

enforcement (because the provisions are not enforceable and additional mechanisms such as independent board of directors or audit committees will be powerless to discipline the insiders). Therefore, we could find that governance matters less in countries with weak legal system (i.e. a positive interaction). An alternative hypothesis is that governance matters more in countries with weak legal systems. One reason for this relationship could be that investors in countries with weak legal systems will reward more a firm that establishes a good corporate governance framework – as even a little bit of improvement *relative* to other firms in a country will make a big difference for investors – which will improve market valuation and decrease the cost of capital (and subsequently improve operating performance).

Another reason for a negative interaction effect is suggested in a recent paper by Doidge, Karolyi, and Stulz (2001). Their argument is based on the mounting evidence that controlling shareholders have more incentives to expropriate from minority shareholders in countries with less investor protection and therefore the benefits of control are greater in countries with weaker rule of law, as recently evidenced by Nenova (2002). By establishing good governance mechanisms, the controlling shareholders give up more of their benefits of control in countries where such benefits are high (i.e. investor protection is low), which will be reflected in the firm's performance and market valuation.

Because our empirical exploration is not based on a structural model and the interaction term treats governance and legality as symmetric variables, an alternative interpretation of the interaction term is to test for which firms the legal environment matters more. For example, the negative interaction term would suggest that a good legal environment matters more for firms with weak firm-level governance. In other words, investors in firms with weak governance must rely more on the enforcement of country-level laws and the efficiency of the courts to uphold

their rights, while investors in well-governed firms are less dependent on their countries' legal systems.

#### *4.2 Evidence*

Table 3 reports our first set of results. Panel A uses Tobin's-Q as the dependent variable and finds a significant positive correlation with our governance indicator. This supports our hypothesis that firms with better corporate governance have higher market valuation. Columns 2 and 3 show that this result becomes stronger with the inclusion of country dummies (Column 2) and does not change much with addition of 1-digit SIC code dummies (Column 3). It is interesting to note that the governance coefficient doubles in magnitude after including country dummies, which suggests that relative governance (i.e. relative to the country average) is more important than the absolute value of the index. The magnitude of this effect is large, as one standard deviation change in governance results in about a 23% increase in the value of Tobin's-Q.

To test whether this relationship could be spuriously caused by some omitted variables, we add the variables that we found in Section 3 to be associated with higher governance rankings. Column 4 shows that our results are robust to the inclusion of log sales, which suggests that the relationship between good governance and market valuation holds regardless of firm size. Column 5 adds the average growth rate of real sales, SalesGR, which is significantly positive, in line with our intuition discussed in Section 3 that past sales growth is likely to be correlated with future growth opportunities and therefore increases market valuation. Column 6 adds our measure of capital intensity, K/S, which is significantly negative, suggesting that firms with more intangible assets (i.e. lower capital intensity) have higher Tobin's-Q. However,

governance is robust to the inclusion of these additional controls, which makes us confident that the relationship is not spuriously caused by any of the omitted variables.<sup>19</sup>

Table 3, Panel B also shows a similar positive correlation between corporate governance behavior and firm performance, as estimated by ROA. These results are consistent with results found in Gompers et al. (2001), which find that firms with weaker corporate governance have relatively lower profits in the US. However, ours is the first evidence that a relationship between corporate governance and firm performance holds across several emerging markets, which unlike the US are categorized by more concentrated ownership and weaker legal environments.

Table 4 extends the previous regressions to include the effect of legal indicators, with Tobin's-Q as the dependent variable. We include three measures of legal performance: Panel A includes Judicial Efficiency, which indicates the implementation of laws; Panel B includes Shareholders Rights, which indicates the existence of laws protecting investors; and Panel C includes Legality, which is an overall measure of the legal environment.

Table 4, Column 1 shows tests of Tobin's-Q and legal indicators (all regressions include 1-digit SIC code and year1998 dummies.) We find only a significant correlation with Legality, which is the broadest measure of a good legal environment.<sup>20</sup> Column 2 shows that good corporate governance continues to be significantly related to valuation, even after correcting for the legal environment. This suggests that even though our governance measure is significantly

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<sup>19</sup> The results are unchanged when we add all three additional controls simultaneously (not reported, available on request)—governance and all control variables remain significant at 1% level. We have also experimented with Investment to Assets ratio as another proxy for the future growth opportunities. It was not significant and did not affect our governance results. Finally, we included a dummy indicating firms that trade ADRs in all performance regressions, which was insignificant and did not affect our other results.

<sup>20</sup> However, when we add the interaction with governance in column 4 we find that all three legal indicators are significant at least at 10% or better. This is consistent with La Porta, et al (2002) that finds evidence in 27 high-income countries that firms with better protection of minority shareholders have higher market valuation.

correlated with country-level legal indicators (as shown in Section 3), firm-specific governance measures are of greater importance than the constraints of country-level laws in determining market valuation.

In Table 4, Column 3 we include the interaction of firm-level governance and a measure of country-level legal efficiency.<sup>21</sup> We find that this interaction is negative, which indicates that governance is more important in countries with overall weak legal systems.<sup>22</sup> As discussed above, the alternative interpretation of this interaction term is that the legal system matters less for the well-governed firms, which is plausible because firms with better governance will have less need to rely on the legal system to resolve governance conflicts. In Column 3 the interaction is only significant for the measure of Judicial Efficiency. However, when we include the Latin dummy in Column 4 the interaction becomes significant for all three legal indicators (significant at 1% for Efficiency and 10% for Shareholder Rights and Legality). We also obtain similar results (i.e. all legal indicators are significant at least at 10%) when we exclude these two Latin American countries from our regressions. We argue that the two Latin American countries in our sample (Chile and Brazil) are different from the rest of the sample because they have the lowest mean and median Q in the sample (except for Turkey) and relatively low ROA, however they have relatively strong governance indicators and country-level indices of investor protection. One explanation may be that the governments of Brazil and Chile both enacted in

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<sup>21</sup> An important caveat for our interaction results is the small sample – 14 countries may not be a large enough sample to properly test this hypothesis. We therefore should be cautious in attaching strong interpretations to these results and encourage further research.

<sup>22</sup> Our finding of the negative interaction effect parallels that of Doidge, Karolyi and Stulz (2001) who find that the premium associated with ADR issuance is larger for firms in countries with weaker investor protection.

2000 new laws offering greater protection to minority shareholders and these recent improvements in governance would not be correlated with 1999 data.<sup>23</sup>

Table 5 reproduces these results with ROA as the dependent variable. With the exception of the results including Shareholder Rights, we find a strong correlation between governance and ROA, and a significantly negative correlation with the interaction of judicial effectiveness. The weaker results of Shareholder Rights could reflect the smaller variation within this variables as well as the possible weaker importance of actual laws relative to their implementation.

The results in Tables 4 and 5 suggest that firm-level investor protection is more important for firm valuation in countries with weaker investor protection from the courts. In terms of magnitude, a one standard deviation improvement in governance increases Tobin's-Q by 33% of its standard deviation if the Efficiency score is five, and improves Tobin's-Q by 18% of its standard deviation if the Efficiency score is eight. Although an improvement in firm-level governance always improves performance and market valuation, the improvements are higher in countries with weaker legal and judicial infrastructures.

## **5. Conclusion**

Although it is well established that country-level shareholder rights and judicial efficiency affects firm value, in this paper we explore the differences in firm-level governance mechanisms, their relationship with the country-level legal environment, and the correlations between governance and performance. We use data from a recent report by Credit Lyonnais Securities Asia (CLSA) that constructed corporate governance rankings for 495 firms across 25 emerging markets and 18 sectors. We find that (1) firms in countries with weak overall legal

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<sup>23</sup> This includes "Rule 345" in Brazil and the OPA law in Chile, which protect minority shareholders during acquisitions, and the Corporate Law bill in Brazil, which provide broad

systems have on average lower governance rankings, (2) firm-level governance is correlated with variables related to the extent of the asymmetric information and contracting imperfections that firms face, which we proxy with firm size, sales growth (proxy for the growth opportunities) and intangibility of assets, (3) firms that trade shares in the US have higher governance rankings, especially so in countries with weak legal systems, (4) good governance is positively correlated with market valuation and operating performance and (5) this relationship is stronger in countries with weaker legal systems.

One interpretation of the last result is that firm-level corporate governance matters more in countries with weak shareholder protection and poor judicial efficiency. An alternative interpretation is that the legal system matters less for the well-governed firms, which is plausible because firms with better governance will have less need to rely on the legal system to resolve governance conflicts.

Our results suggest that firms in countries with poor investor protection can improve their corporate governance, which may improve their performance and valuation. Our results do not attempt to imply that firm-level corporate governance is a replacement for country-level judicial reform. For example, we also find that firms have on average significantly lower governance rankings in countries with weak legal systems, which suggests that firms cannot completely compensate for the absence of strong laws and good enforcement. Although we do find that firms can independently improve their investor protection and minority shareholder rights to a certain degree, this adjustment mechanism is a second best solution and does not fully substitute for the absence of a good legal infrastructure.

Our results also have important policy implications. Although the task of reforming investor protection laws and improving judicial quality is difficult, lengthy, and requires the  

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protections to minority shareholders.

support of politicians and other interest groups, improving corporate governance on a firm-level is a feasible goal. Our results suggest that even prior to legal and judicial reform, firms can still reduce their cost of capital by establishing credible investor protection provisions. Our paper proposes that firms in countries with poor investor protection can use provisions in their charters to improve their corporate governance, which may improve their performance and valuation. However, the task of reforming the legal systems should remain a priority on the policymaker's agenda.

## **Appendix 1: Abbreviated CLSA questionnaire**

### **Discipline (15%)<sup>24</sup>**

1. Has the company issued a "mission statement" that explicitly places a priority on good corporate governance? <...><sup>25?</sup>
2. Is senior management incentivised to work towards a higher share price for the company eg, <...> expected remuneration for the top executive(s) is tied to the value of the shares?
3. Does management stick to clearly defined core businesses? (Any diversification into an unrelated area in last 3 years would count as "No".)
4. <...> Is management's view of its cost of equity within 10% of a CAPM derived estimate?
5. <...> Is management's estimate of its cost of capital within 10% of our estimate based on its capital structure?
6. Over the past 5 years, is it true that the Company has not issued equity, or warrants for new equity, for acquisitions and/or financing new projects where there was any controversy over whether the acquisition/project was financially sound? <...>
7. Does senior management use debt for investments/capex only where ROA (or average ROI) is clearly higher than cost of debt and where interest cover is no less than 2.5x? <...>
8. Over the past 5 years, is it true that the company has not built up cash levels <...>?
9. Does the company's Annual Report include a section devoted to the company's performance in implementing corporate governance principles?

### **Transparency (15%)**

10. Has management disclosed three- or five-year ROA or ROE targets? <...>
11. Does the company publish its Annual Report within four months of the end of the financial year?
12. Does the company publish/announce semiannual reports within two months of the end of the half-year?
13. Does the company publish/announce quarterly reports within two months of the end of the quarter?
14. Has the public announcement of results been no longer than two working days of the Board meeting? <...>
15. Are the reports clear and informative? (Based on perception of analyst.) <...>
16. Are accounts presented according to IGAAP? <...>
17. Does the company consistently disclose major and market sensitive information punctually? <...>
18. Do analysts have good access to senior management? Good access implies accessibility soon after results are announced and timely meetings where analysts are given all relevant information and are not misled.
19. Does the Company have an English language web-site where results and other announcements are updated promptly (no later than one business day)?

### **Independence (15%)**

20. Is it true that there has been no controversy or questions raised over whether the board and senior management have made decisions in the past five years that benefit them, at the expense of shareholders? (Any loans to group companies/Vs, non-core/non-controlled group-investments, would mean "No").
21. Is the Chairman an independent, non-executive director?
22. Does the company have an executive or management committee <...> which is substantially different from members of the Board and not believed to be dominated by major shareholders? (ie, no more than half are also Board members and major shareholder not perceived as dominating executive decision making.)
23. Does the company have an audit committee? Is it chaired by a perceived genuine independent director?
24. Does the company have a remuneration committee? Is it chaired by a perceived genuine independent director?
25. Does the company have a nominating committee? Is it chaired by a perceived genuine independent director?
26. Are the external auditors of the company in other respects seen to be completely unrelated to the company?
27. Does the board include no direct representatives of banks and other large creditors of the company? (Having any representatives is a negative.)

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<sup>24</sup> Percents reflect the weight in the CLSA weighted average index.

<sup>25</sup> We kept the wording of the questions exactly as specified in the CLSA report, however to save the space and without loss of contents we cut out portions of the questions, these cuts are marked with <...> . For example we removed all clarifications as to how the analysts should answer the questions and endings such as "as far as the analyst can tell".

### **Accountability (15%)**

28. Are the board members and members of the executive/management committee substantially different <...>? (ie, no more than half of one committee sits on the other?)
29. Does the company have non-executive directors who are *demonstrably and unquestionably* independent? (Independence of directors must be demonstrated by either being appointed through nomination of non-major shareholders or having on record voted on certain issues against the rest of the Board. <...>)
30. Do independent, non-executive directors account for more than 50% of the Board?
31. Are there any foreign nationals on the Board <...>?
32. Are full Board meetings held at least once a quarter?
33. Are Board members well briefed before Board meetings? <...>(Answers 33-35 must be based on direct contact with an independent Board member. If no access is provided <...> answer "No" to each question.)
34. Does the audit committee nominate and conduct a proper review the work of external auditors <...>?
35. Does the audit committee supervise internal audit and accounting procedures <...>?

### **Responsibility (15%)**

36. If the Board/senior management have made decisions in recent years seen to benefit them at the expense of shareholders (cf Q20 above), has the Company been seen as acting effectively against individuals responsible and corrected such behavior promptly, ie, within 6 months? (If no such case, answer this question as "Yes".)
37. <...> Over the past five years, if there were flagrant business failures or misdemeanors, were the persons responsible appropriately and voluntarily punished? (If no cases <...> then answer "No".)
38. Is there any controversy or questions over whether the Board and/or senior management take measures to safeguard the interests of all and not just the dominant shareholders? <...>
39. Are there mechanisms to allow punishment of the executive/management committee in the event of mismanagement <...>?
40. Is it true that there have been no controversies/ questions over whether the share trading by Board members have been fair, fully transparent, and well intentioned? <...>
41. <...> Is the board small enough to be efficient and effective? (If more than 12, answer "No".)

### **Fairness (15%)**

42. Is it true that there have not been any controversy or questions raised over any decisions by senior management in the past 5 years where majority shareholders are believed to have gained at the expense of minority shareholders?
43. Do all equity holders have the right to call General Meetings? <...>
44. Are voting methods easily accessible (eg proxy voting)?
45. Are all necessary <...> information for General Meetings made available prior to General Meeting?
46. Is senior management unquestionably seen as trying to ensure fair value is reflected in the market price of the stock <...>?
47. Is it true that there has been no questions or perceived controversy over whether the Company has issued depositary receipts that benefited primarily major shareholders <...>?
48. Does the majority shareholder group own less than 40% of the company?
49. Do foreign portfolio managers, and/or domestic portfolio investors who have a track record in engaging management on CG issues, own at least 20% of the total shares with voting rights?
50. Does the head of Investor Relations report to either the CEO or a Board member?
51. <...> Over the past five years, is it true that total directors remuneration has not increased faster than net profit after exceptionals? <...>

### **Social awareness (10%)**

52. Does the company have an explicit (clearly worded) public policy statements that emphasize strict ethical behavior: ie, one that looks at the spirit and not just the letter of the law?
53. Does the company have a policy/culture that prohibits the employment of the under-aged <...>?
54. Does the company have an explicit equal employment policy <...>?
55. Does the Company adhere to specified industry guidelines on sourcing of materials <...>?
56. Is the company explicitly environmentally conscious? <...>
57. Is it true that the company has no investments operations in Myanmar?

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## **Table 1: Summary Statistics**

*Governance* is CLSA's firm-level corporate governance rankings. *Tobin's-Q* is defined as the market value of equity plus total liabilities divided by total assets. *ROA* is a firm-level measure of firm performance and is defined as net income plus interest expense divided by total assets. *Legality* is an index of legal and economic development constructed as a weighted average of Efficiency of the Judiciary, Rule of Law, Corruption, Risk of Expropriation, and Risk of Contract Repudiation. (Berkowitz, et al., 2002). *Shareholder Rights* is the sum of dummies identifying one-share/one-vote, proxy by mail, unblocked shares, cumulative vote/proportional representation, preemptive rights, oppressed minority, and percentage of shares needed to call an ESM (Shleifer, et al., 1999). *Judicial Efficiency* is from the International Country Risk Guide (2000). The Mean, Standard deviation, and Range of firm-level governance are calculated separately for each country. All correlations are based on 14 country-level observations. P-values are in parenthesis.

### **Panel A: Firm-Level Corporate Governance Index and Country-Level Legal Indicators**

		<b>Firm-Level Governance Index</b>					<b>Country-Level Indices</b>		
	<b>Obs</b>	<b>Mean</b>	<b>Median</b>	<b>Min.</b>	<b>Max.</b>	<b>Std Dev</b>	<b>Legality</b>	<b>Shareholder Rights</b>	<b>Judicial Efficiency</b>
<i>All Sample</i>	<b>374</b>	<b>54.11</b>	<b>54.97</b>	<b>11.77</b>	<b>92.77</b>	<b>14.00</b>	<b>13.88</b>	<b>3.57</b>	<b>6.30</b>
Brazil	24	57.26	59.87	43.08	68.22	7.99	14.07	3.00	5.75
Chile	13	61.63	60.62	48.22	69.25	5.18	14.68	5.00	7.25
Hong Kong	35	58.27	59.73	30.90	92.77	14.80	19.09	5.00	10.00
India	68	52.78	51.07	32.33	92.52	10.76	12.78	5.00	8.00
Indonesia	16	37.81	38.52	11.77	62.85	12.91	9.14	2.00	2.50
Malaysia	40	54.44	58.64	21.63	78.30	14.40	16.65	4.00	9.00
Pakistan	9	31.85	26.83	17.25	66.68	15.56	8.96	5.00	5.00
Philippines	17	40.72	34.08	19.40	64.35	13.66	8.50	3.00	4.75
Singapore	38	65.34	66.10	45.37	85.97	9.82	19.51	4.00	10.00
South Africa	32	66.53	67.16	42.62	80.38	8.55	14.32	5.00	6.00
South Korea	18	40.66	39.73	33.00	55.82	5.73	14.21	2.00	6.00
Taiwan	37	53.45	53.13	38.95	74.52	8.39	17.60	3.00	6.75
Thailand	18	53.54	49.69	28.33	79.02	14.53	12.92	2.00	3.25
Turkey	9	43.04	46.58	23.43	56.77	12.90	11.82	2.00	4.00

**Table 1: Summary Statistics (cont.)*****Panel B: Firm-Level Performance Variables, 1999***

	<b><i>Tobin's-Q:</i></b>				<b><i>ROA:</i></b>			
	Obs	Mean	Median	Std Dev	Obs	Mean	Median	Std Dev
All Sample	336	2.09	1.39	1.68	357	0.08	0.06	0.16
Brazil	24	1.27	1.10	0.67	24	0.01	0.02	0.05
Chile	12	1.38	1.20	0.65	12	0.04	0.05	0.04
Hong Kong	29	1.95	1.37	1.67	33	0.09	0.06	0.09
India	55	2.82	1.66	2.26	66	0.11	0.09	0.08
Indonesia	16	2.23	1.89	1.28	16	0.10	0.08	0.10
Malaysia	39	1.84	1.45	1.06	39	0.10	0.08	0.08
Pakistan	9	1.49	1.46	0.47	9	0.06	0.09	0.11
Philippines	17	1.46	1.36	0.65	17	0.04	0.04	0.05
Singapore	35	1.73	1.19	1.37	37	0.05	0.04	0.05
South Africa	32	1.90	1.37	1.40	29	0.09	0.07	0.07
South Korea	16	1.58	1.09	1.32	16	0.03	0.02	0.04
Taiwan	30	3.67	3.12	2.31	31	0.10	0.07	0.07
Thailand	16	2.07	1.50	1.50	15	0.05	0.04	0.09
Turkey	6	1.16	1.16	0.53	7	0.05	0.00	0.08

***Panel C. Correlations of Country-level governance statistics and Legal Indicators***

	<b>Mean of Governance</b>	<b>St. Dev. of Governance</b>	<b>Interquartile Range of Governance</b>	<b>Legality</b>	<b>Efficiency</b>
St. Dev. Governance	-0.42 (0.14)				
Interquartile Range Governance	-0.39 (0.16)	0.74 (0.00)			
Legality	0.77 (0.00)	-0.30 (0.29)	-0.43 (0.13)		
Efficiency	0.64 (0.01)	-0.14 (0.64)	-0.45 (0.11)	0.81 (0.00)	
Shareholder Rights	0.47 (0.09)	0.00 (1.00)	-0.39 (0.17)	0.28 (0.33)	0.64 (0.01)

**Table 2: Governance Determinants**

The dependent variable is *Governance*, which is CLSA's firm-level corporate governance ranking. *Log(SalesUS)* is Log of Sales in US\$. *SalesGR* is 3-year average growth rate of sales (in US\$). *K/S* is the ratio of the 3-year average of fixed capital (property plant and equipment) to sales. *ADR Dummy* equals one if the firm lists in the US, 0 otherwise. *Judicial Efficiency* is from the International Country Risk Guide (2000). *Shareholder Rights* is the sum of dummies identifying one-share/one-vote, proxy by mail, unblocked shares, cumulative vote/proportional representation, preemptive rights, oppressed minority, and percentage of shares needed to call an ESM (La Porta et al., 1999). Firm-level data is for 1999 except for 29 firms whose last available data is 1998. All regressions include a year dummy for firms whose last available data is 1998 (not shown). T-statistics are in parenthesis, \*, \*\*, and \*\*\* indicate significance at 10%, 5%, and 1% respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log(SalesUS)	0.98* (1.84)	0.39 (0.69)			0.52 (0.90)	0.47 (0.82)	0.38 (0.81)
SalesGR	9.98*** (2.6)	9.96*** (2.63)			8.61*** (2.38)	8.62*** (2.38)	6.86** (2.11)
K/S	-1.48*** (-2.97)	-0.99** (-2.09)			-1.05*** (-2.64)	-0.96*** (-2.51)	-0.89** (-2.12)
ADR Dummy		5.18*** (3.23)		4.49*** (2.68)	4.47*** (3.03)	5.27*** (2.79)	2.39* (1.68)
Judicial Efficiency			1.65*** (3.56)	2.11*** (4.03)	1.77*** (3.71)	2.22*** (4.16)	
Shareholder Rights			1.67** (1.96)	1.56* (1.85)	0.63 (0.69)	0.94 (1.04)	
Judicial Efficiency *ADR Dummy				-1.45** (-2.04)		-1.52** (-2.14)	
Intercept	42.5*** (6.1)	47.99*** (6.59)	34.76*** (12.82)	31.48*** (9.79)	31.44*** (3.94)	27.68*** (3.33)	---
Country Dummies	No	No	No	No	No	No	Yes
Adjusted R <sup>2</sup>	0.06	0.07	0.13	0.16	0.17	0.18	0.39
# of Firms	335	335	374	374	335	335	335

**Table 3: Corporate Governance and Firm Valuation**

The dependent variable in Panel A, *Tobin's-Q*, measures expected market performance and is defined as the market value of equity plus total liabilities divided by total assets. The dependent variable in Panel B, *ROA*, measures the return on assets and is calculated as net income plus interest expense divided by total assets. *Governance* is CLSA's firm-level corporate governance rankings. *Log(SalesUS)* is the natural log of total sales. *SalesGR* is 3-year average growth rate of sales (in US\$). *K/S* is the ratio of the 3-year average of fixed capital (property plant and equipment) to sales. Firm-level data is for 1999 except for 29 firms whose last available data is 1998. All regressions include a year dummy for firms whose last available data is 1998 (not shown.) T-statistics are in parenthesis, \*, \*\*, and \*\*\* indicate significance at 10%, 5%, and 1% respectively.

<b>Panel A: Dependent Variable = Tobin's-Q</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	1.56*** (4.99)	—	—	—	—	—
Governance	0.011** (1.94)	0.023*** (3.12)	0.023*** (3.36)	0.025*** (3.54)	0.021*** (2.97)	0.0196*** (2.76)
Log(SalesUS)				-0.25*** (-4.24)		
SalesGR					1.58*** (3.91)	
K/S						-0.24*** (-4.49)
Country dummies	No	Yes	Yes	Yes	Yes	Yes
1-Digit SIC dummies	No	No	Yes	Yes	Yes	Yes
Adjusted R <sup>2</sup>	0.03	0.21	0.30	0.34	0.30	0.33
# of Firms	336	336	336	334	323	333

<b>Panel B: Dependent Variable = ROA</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	2.3 (1.59)	—	—	—	—	—
Governance	0.08*** (2.83)	0.14*** (3.58)	0.13*** (3.48)	0.13*** (3.52)	0.12*** (3.17)	0.11*** (2.84)
Log(SalesUS)				-0.26 (-0.85)		
SalesGR					0.05** (2.13)	
K/S					No	-0.01*** (-4.48)
Country dummies	No	Yes	Yes	Yes	Yes	Yes
1-Digit SIC dummies	No	No	Yes	Yes	Yes	Yes
Adjusted R <sup>2</sup>	0.03	0.19	0.25	0.25	0.26	0.28
# of Firms	351	351	351	347	335	346

**Table 4: Corporate Governance, Legality and Firm Valuation**

The dependent variable, *Tobin's-Q* is defined as the market value of equity plus total liabilities divided by total assets. *Governance* is CLSA's firm-level corporate governance rankings. *Legality* is an index of legal and economic development constructed as a weighted average of Efficiency of the Judiciary, Rule of Law, Corruption, Risk of Expropriation, and Risk of Contract Repudiation (Berkowitz, et al., 2002). *Judicial Efficiency* is from the International Country Risk Guide (2000). *Shareholder Rights* is the sum of dummies identifying one-share/one-vote, proxy by mail, unblocked shares, cumulative vote/proportional representation, preemptive rights, oppressed minority, and % of shares needed to call an ESM (Shleifer, et al., 1999). Latin Dummy is equal to 1 if the country is in Latin America, 0 otherwise. Firm-level data is for 1999 except for 29 firms whose last available data is 1998. All regressions include 336 firms, 1-digit SIC dummies and a year dummy for firms whose last available data is 1998 (not shown.) T-statistics are in parenthesis, \*, \*\*, and \*\*\* indicate significance at 10%, 5%, and 1% respectively.

<b>Panel A:</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>
Judicial Efficiency	0.02 (0.62)	-0.02 (-0.53)	0.22** (2.14)	0.27** (2.61)
Governance		0.019*** (3.20)	0.049*** (3.44)	0.066*** (4.31)
Judicial Efficiency* Governance			-0.004** (-2.25)	-0.006*** (-2.98)
Latin Dummy				-1.05 (-5.62)
Adjusted R <sup>2</sup>	0.11	0.13	0.14	0.19

<b>Panel B:</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>
Shareholder Rights	0.44 (0.58)	-0.02 (-0.30)	0.39 (1.49)	0.43* (1.68)
Governance		0.02*** (3.19)	0.05*** (2.33)	0.06*** (2.82)
Shareholder Rights* Governance			-0.01 (-1.52)	-0.01* (-1.84)
Latin Dummy				-1.15*** (-6.26)
Adjusted R <sup>2</sup>	0.11	0.13	0.14	0.18

<b>Panel C:</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>
Legality	0.47** (2.05)	0.17 (0.67)	0.08 (1.18)	0.14* (1.87)
Governance		0.017*** (2.71)	0.03* (1.74)	0.06*** (2.74)
Legality*Governance			-0.001 (-0.92)	-0.003* (-1.79)
Latin Dummy				-1.18*** (-6.16)
Adjusted R <sup>2</sup>	0.12	0.13	0.13	0.18

**Table 5: Corporate Governance, Legality and Firm Performance**

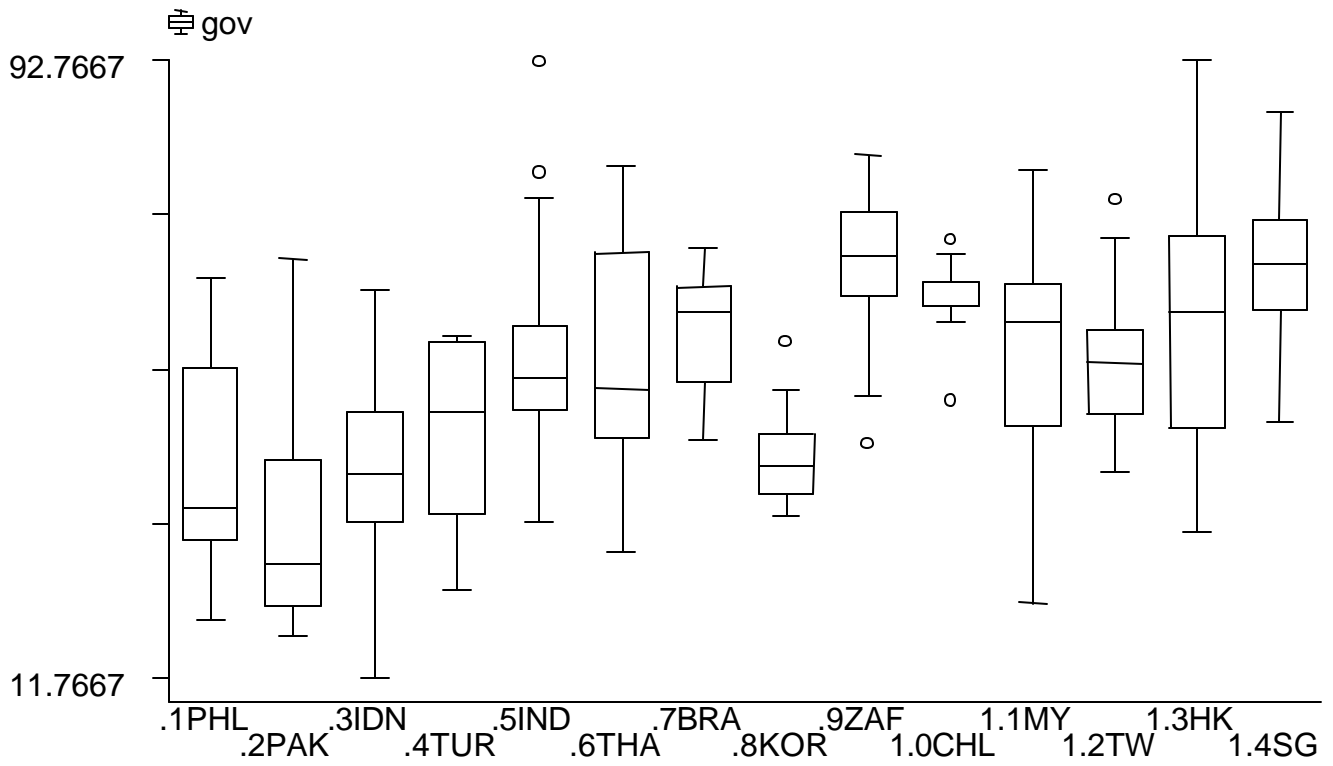
The dependent variable, *ROA*, measures the return on assets and is calculated as net income plus interest expense divided by total assets. *Governance* is CLSA's firm-level corporate governance rankings. *Legality* is an index of legal and economic development constructed as a weighted average of Efficiency of the Judiciary, Rule of Law, Corruption, Risk of Expropriation, and Risk of Contract Repudiation (Berkowitz, et al., 2002). *Judicial Efficiency* is from the International Country Risk Guide (2000). *Shareholder Rights* is the sum of dummies identifying one-share/one-vote, proxy by mail, unblocked shares, cumulative vote/proportional representation, preemptive rights, oppressed minority, and % of shares needed to call an ESM (Shleifer, et al., 1999). Latin Dummy is equal to 1 if the country is in Latin America, 0 otherwise. Firm-level data is for 1999 except for 29 firms whose last available data is 1998. All regressions include 348 firms, 1-digit SIC dummies and a year dummy for firms whose last available data is 1998 (not shown.) T-statistics are in parenthesis, \*, \*\*, and \*\*\* indicate significance at 10%, 5%, and 1% respectively.

<b>Panel A:</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>
Judicial Efficiency	0.39** (1.95)	0.20 (0.96)	1.2** (1.97)	0.01** (2.38)
Governance		0.09*** (2.87)	0.22*** (2.67)	0.31*** (3.56)
Judicial Efficiency* Governance			-0.019 (-1.38)	-0.028** (-2.44)
Latin Dummy				-6.1*** (-5.69)
Adjusted R <sup>2</sup>	0.12	0.14	0.15	0.20

<b>Panel B:</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>
Shareholder Rights	1.2*** (3.15)	0.95** (2.27)	1.7 (1.31)	1.8 (1.34)
Governance		0.08*** (2.55)	0.14 (1.31)	0.18* (1.79)
Shareholder Rights* Governance			-0.01 (-0.53)	-0.02 (-0.81)
Latin Dummy				-5.4*** (-5.50)
Adjusted R <sup>2</sup>	0.14	0.16	0.16	0.20

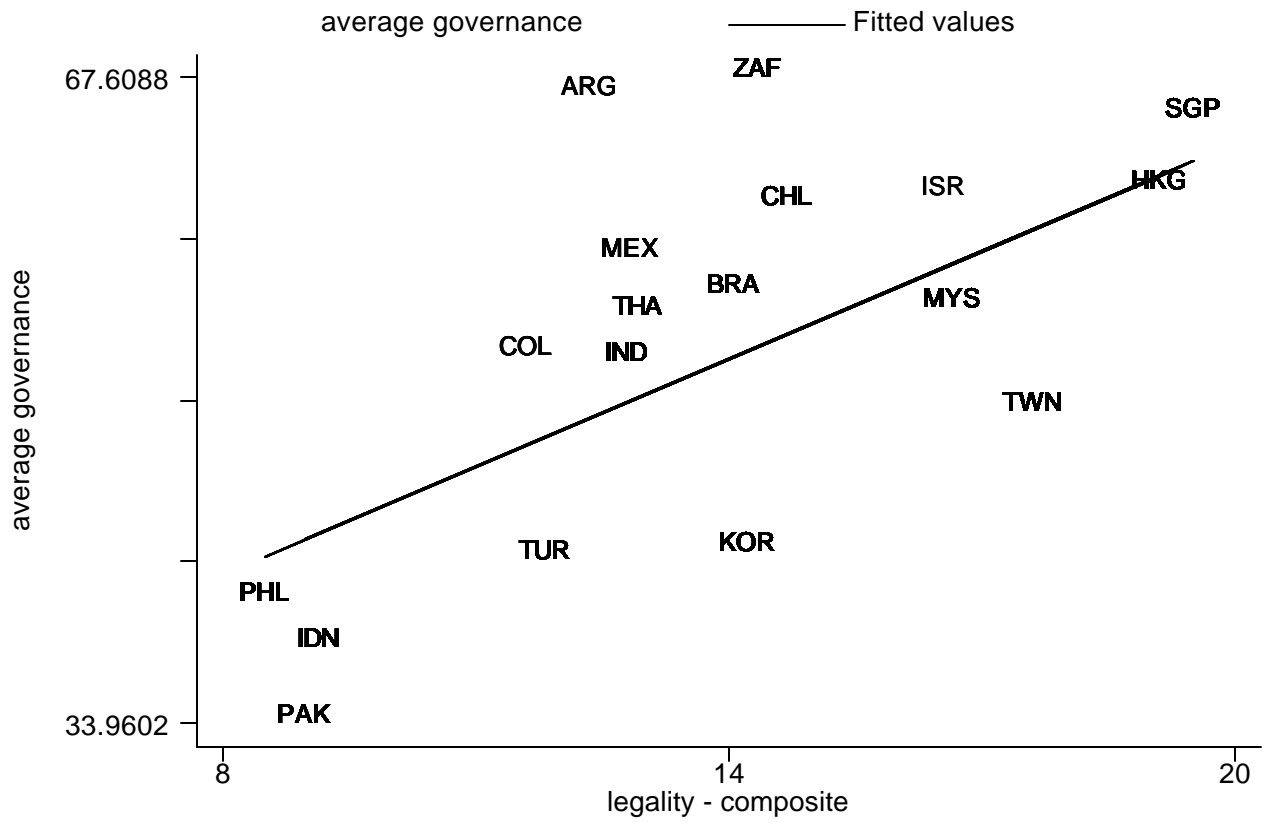
<b>Panel C:</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>
Legality	0.15 (1.22)	-0.03 (-0.25)	0.71* (1.62)	0.98** (2.20)
Governance		0.10*** (3.14)	0.31*** (2.47)	0.43*** (3.31)
Legality*Governance			-0.014* (-1.79)	-0.021*** (-2.55)
Latin Dummy				-6.4*** (-6.09)
Adjusted R <sup>2</sup>	0.11	0.14	0.15	0.20

**Figure 1: Box –and-Whisker Plot of the Distribution of Governance Rankings, by Country**



Notes: Countries are sorted in the order of increasing index of Legality.

**Figure 2: Scatterplot of Average Governance and Index of Legality, by Country**



Notes: Plotted are country-means of firm-level governance rankings against index of Legality.