

Corporate Governance,
Investor Protection, and Performance
in Emerging Markets

Leora F. Klapper

Inessa Love

The World Bank
Development Research Group
Finance
April 2002



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. Klapper and Love extend this literature and provide a study of firm-level corporate governance practices across emerging markets and a greater understanding of the environments under which corporate governance matters more. Their empirical tests show that better corporate governance is highly correlated with better operating performance and market valuation. More important, the authors provide

evidence showing 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. The authors' tests also show that firm-level governance and performance is lower in countries with weak legal environments, suggesting that improving the legal system should remain a priority for policymakers.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to study corporate governance around the world. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Agnes Yaptenco, room MC3-446, telephone 202-473-1823, fax 202-522-1155, email address ayaptenco@worldbank.org. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at lklapper@worldbank.org or ilove@worldbank.org. April 2002. (32 pages)

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the view of the World Bank, its Executive Directors, or the countries they represent.

Corporate Governance, Investor Protection and Performance in Emerging Markets

Leora F. Klapper
Development Research Group
The World Bank
1818 H Street, NW
Washington, DC 20433
(202) 473-8738
lklapper@worldbank.org

Inessa Love
Development Research Group
The World Bank
1818 H Street, NW
Washington, DC 20433
(202) 458-0590
ilove@worldbank.org

We thank Geert Bekaert, Stijn Claessens, Asli Demirguc-Kunt, Simeon Djankov, Olivier Fremond, Christian Harm and Charles Himmelberg for useful discussions. We also thank Victor Sulla for providing excellent research assistance.

.....

1. Introduction

Previous research studying the link between law and finance has concentrated on corporate governance around the world, focusing 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.¹

However, many provisions in 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 a specific provision or adopt additional provisions not listed in the legal code (see Easterbrook and Fischel (1991), Black and Gilson (1998)). It is likely, therefore, that not all firms in the same country offer the same degree of protection to their investors. This raises the following questions that we explore: Do differences in investor protection across firms within the same country matter? Can a firm that is “stuck” in a country with a weak legal environment distinguish itself and afford more protection to its investors by adopting good corporate governance practices, such as greater firm disclosure and stronger minority shareholder rights? Finally, does the adoption of good corporate governance practices matter more in countries with overall good or bad legal systems?

¹ For example, La Porta, Lopez-de-Silanes, Shleifer and Vishny (1999a, 1999b, 2000), Claessens, Djankov and Lang (2000), Berkowitz, Pistor and Richard (2002), Lombardo and Pagano (2000), Beck, Demirguc-Kunt and Levine (2001) and others.

Most existing literature using firm-level corporate governance provisions has studied exclusively US and OECD firms (see Shleifer and Vishny (1997) and Maher and Andersson (2000) for comprehensive surveys). For example, a recent paper by Gompers, Ishi and Metrick (2001) uses differences in takeover defense provisions to create a corporate governance index of US firms and finds that firms with stronger shareholder rights have better operating performance, higher market valuation, and are more likely to make acquisitions. An exception is Black (2000), which finds that the governance practices of Russian corporations are strongly related to implied value ratios. However, a remaining gap in the literature -- that our paper attempts to fill -- is a study of firm-level corporate governance practices across emerging markets and a greater understanding of the environments under which corporate governance matters more.

In a recent report, Credit Lyonnais Securities Asia (further referred as CLSA) produced corporate governance rankings for 495 firms across 25 emerging markets and 18 sectors.² The descriptive statistics presented in the 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 governance and performance using multivariate regression analysis. Unlike the CLSA report that concentrates on returns, we use Tobin's-Q to measure the market valuation of assets and return on assets (ROA) as a measure of operating performance.³

² Credit Lyonnais Securities Asia, report titled "Saints and Sinners: Who's got religion", April 2001.

³ We do not use returns as a performance measure for several reasons. The first reason is the extreme volatility in returns over the last several years in emerging markets overall and particularly in Asia, which constitutes 70% of our sample. Second, even though the CLSA report suggests that firms with bad corporate governance have lower returns than better governed firms, the interpretation of this finding has to rely on market inefficiency arguments-- instead of considering poor governance as a source of risk (and therefore requiring additional compensation for this risk in the form of higher return --i.e. negative correlation between governance and performance) investors underestimate the degree of agency costs resulting from poor

We find that better corporate governance is associated with higher operating performance and higher Tobin's-Q. Not surprisingly, the country-average governance index is higher in countries with good overall legal systems. To ensure that the governance index is not proxying for country-level variables we include country fixed effects and find that the correlation 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.

We also explore the cross-country nature of our sample to study the correlation between performance measures and country-level indicators of the legal system, such as shareholder rights and the law enforcement index. We find that country-level legal efficiency indices are not robust across specifications, while the effect of the firm-level governance index is always positive and significant.

Finally, we test whether good corporate governance matters more or less in countries with weak shareholder protection and judicial efficiency. One hypothesis is that in a country with weak judicial efficiency, additional charter provisions would not be enforced and therefore firms would be powerless to independently improve investor protection. In this case we should find that governance matters less in countries with weak legal systems. An alternative hypothesis is that in a country with a weak legal system, investors would welcome even small improvements in governance relative to other firms, in which case we should find that good governance matters more in a bad legal environment. We provide an empirical answer to this question by interacting the firm-level

governance practice which results in lower returns (i.e. positive correlation between governance and performance). Gompers et al. (2001) uses a similar argument to explain their results.

corporate governance index with measures of legal efficiency and shareholder rights. The main contribution of this paper is our finding 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 of this study is the likely endogeneity of corporate governance practices. For example, 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 test this proposition by using the growth rate of sales as one of the determinants of governance and find significantly positive correlation. These growth opportunities should also be reflected in the market valuation of the firm, thus creating a positive correlation between governance and Tobin's-Q.⁴ 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.

An additional source of endogeneity could arise as a result of the differences in proportion of intangible to fixed assets. 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 even some short-term assets, such as inventories). Therefore, a firm operating with a

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 variables to address this question.

higher proportion of intangible assets may find it optimal to adopt stricter governance mechanisms to prevent misuse of these assets. We find support for this hypothesis using a capital intensity measure, which is significantly negatively correlated with governance. We also include capital intensity as an additional control variable in our performance regressions and the governance results remain significant.

The paper proceeds as follows: section 2 describes the CLSA corporate governance survey and summarizes our firm- and country-level data. Section 3 discusses 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 equity (ROE.) Section 5 concludes.

2. Data

The CLSA report contains CG ranking on 495 companies in 25 countries. The CLSA sample is selected based on two criteria – firms' size and investor interest. A recent paper by Khanna et al (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.

The corporate governance (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 are given strict instructions to answer negatively if they have any doubts or if there was any unresolved controversy over

the minority shareholder rights. According to CLSA, about 70% of the questions are based on objective facts and remaining questions represent analysts' opinions. Unfortunately, reliance on analysts' opinions worsens the endogeneity problem, as it is likely that analysts could rely on past performance to form their opinions. This is likely to be worse for regressions including past returns and is one of the reasons why we do not study returns.

The questions cover seven broad categories: management discipline, transparency, independence, accountability, responsibility, fairness and social awareness. Our main governance index, further referred 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 inclusion of this category). Furthermore, we do not study the disaggregated indices, since the categories seem to overlap and are categorized with some subjectivity.⁵ For example, 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 CD-ROM). To avoid the anomalous period of the Asian Crisis we included only firms that had available accounting data beginning in at least 1998.⁶ We started with 451 firms with non-missing accounting data.⁷ After excluding 50 banks, 20 firms in Eastern Europe and China (excluded because of unavailable legal indices), and 7 firms in countries with less than 3 firms each (Argentina, Columbia, Greece and Mexico),

⁵ 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.

⁶ 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.

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, Turkey.⁸

The distribution of our GOV index across countries is shown in Table 1, Panel A. Note that 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-specific differences in corporate governance practices even within countries and families of legal origins.

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.⁹ Substituting other measures of operating performance – such as gross margin and return on equity – give similar results. 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 La Porta et al. (1999))

⁷ Since a few variables are missing for some firms, the sample size varies slightly depending on the set of included variables.

⁸ We further 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 99th and below the 1st 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.

⁹ 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.

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 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.

We add 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 % of shares needed to call a shareholders meeting (La Porta et al., 1998.) The third is Legality, which is an index of legal system and institutional environment constructed as a weighted average of Judicial Efficiency (same as 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 C. The average Judicial Efficiency is 13.88 (out of 20), the average Shareholder Rights is 3.57 (out of 5), and the average Legality is 6.30 (out of 10.) There is large variation across countries, emphasizing regional and global difference in the quality and effectiveness of laws around the world.

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.

The arguments below follow closely Himmelberg, Hubbard and Palia (1999) who argued that the level of managerial ownership is endogenously determined by the firm's contracting environment and therefore could spuriously pick up the effect of this unobserved heterogeneity in the ownership-performance regressions. As managerial ownership is only one of the governance mechanisms, the arguments could easily be transferred to other mechanisms such managerial compensation, board structure, disclosure and other minority shareholder protections, which are combined into our governance index.

We consider several sources of the variation in contracting environments. The most obvious is the overall country-level measure of shareholder rights and their enforcement. 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 La Porta et al. (1998). Therefore, firms in countries with overall weak legal environments may not have much flexibility to

improve their investor protection and may therefore have lower corporate governance indices, on average. In the extreme case, for example, firms would be completely powerless to change the overall legal environment with internal governance mechanisms.¹⁰ However, our finding that there is substantial variation in the governance indicators within countries and that governance is significantly correlated with performance after controlling for country effects (as discussed in section 4) implies that firms are not completely powerless and do have some flexibility to improve their governance mechanisms.

In addition to country-level differences in legal efficiency, it is likely that there will be variation across firms within contracting environments, a point proposed by Himmelberg et al. (1999) and further developed by Himmelberg, Hubbard and Love (2001). 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 even some short-term assets, such as inventories). Therefore, a firm 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 while estimating the effect of governance on performance, since the level of intangibles may result in higher Q since in general, the market values intangibles higher than their book value. Similarly, operating performance should be higher since the denominator (for example, total assets) does not fully account for all intangibles. In our performance

¹⁰ In another extreme, if the firm could completely "overwrite" the legal code in their own contracts, we would observe better governance in countries with bad legal system as these firms will be more in "need" of

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.¹¹

Another source of endogeneity could arise because of differences in unobserved growth opportunities. Firms with good growth opportunities will need to expand and raise external financing and may therefore find it optimal to improve their governance mechanisms as better governance and better minority shareholder protection will likely to lower their cost of cost of capital.¹² 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 average real growth rate in sales for the last 3 years, denoted $SalesGR$, as a proxy for future growth (and growth opportunities).¹³

Finally, 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 stricter governance mechanisms to compensate. Alternatively, small firms

good governance mechanisms to compensate for their bad legal system. However, if the enforcement of contracts is weak, the firm will not be able to do that as is the fact that the legal system does matter.

¹¹ Himmelberg et al. (1999) also use research and development intensity (R&D) and advertising expenses as additional measures of the "intangibility" of the assets. Unfortunately, the Worldscope database does not provide variables with advertising expenses and the R&D data is unavailable for most firms in our sample.

¹² 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.

¹³ 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.

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 variables in the Tobin's-Q regressions. We use the natural log of sales (in US\$) as a measure of firm size.

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

$$GOV_f = \beta_1 \text{Log}(\text{Sales})_f + \beta_2 \text{SalesGr}_f + \beta_3 K/S_f + \beta_4 \text{LegalSystem}_c + \gamma$$

As previously implied, we expect $\beta_2 > 0$, $\beta_3 < 0$, $\beta_4 > 0$, and β_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 two different indicators of the quality of the law enforcement, we do not include them together, but we include shareholder rights in combinations with either Efficiency or Legality.

3.2 Evidence

Table 2 reports our estimates of the governance determinants, which find all signs consistent with our hypotheses. In Column 1 we only include our 3 firm-level variables-- size is positive and marginally significant, while average growth rate and capital intensity are significant at 1%. However, the explanatory power of this regression is low, with an adjusted R^2 of only 0.06. In Columns 2 and 3 we include country-level measures of the legal environment: Shareholder rights paired with either Efficiency or Legality and we find the coefficients of these variables positive and significant. These regressions generate much larger R^2 , which explain about 13% in the regression with Efficiency and 22% in the

regression with Legality. Thus, we can conclude that firms in countries with weak overall legal system on average have lower governance rankings.¹⁴

In Columns 4 and 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 model 6 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 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; (2) past growth rates are positively associated with good governance; and (3) firms with higher proportion of fixed assets have lower governance. We also find that size has a marginally positive effect on governance. 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.¹⁵

¹⁴ The coefficients from the regression of governance on 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.

¹⁵ The ability to control for these factors is the advantage of our multivariate regression analysis over the descriptive statistics methodology used in the original CLSA report.

4. Governance and Performance

4.1. Hypotheses

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

$$Q_f = \alpha + \beta_1(Gov_f) + \gamma,$$

where Gov_f equals the firm-level corporate governance ranking. This tests whether investors reward good corporate governance. 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 has influence on market and operating performance and whether firm-level governance is important after 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.¹⁶ Legal environments have been shown to be related to firm performance on the international, country, and state levels (Lombardo and Pagano (2000), La Porta et al. (1999), Daines (2001), respectively). 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 secondly including the two measures simultaneously to test for their relative importance.

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

$$Q_f = \alpha + \beta_1(Gov_f) + \beta_2(Eff_c) + \beta_3(Gov_f * Eff_c)_f + \gamma,$$

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. For example, 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. Alternatively, we may find that investors will reward more a firm that establishes good corporate governance framework in countries with poor overall minority shareholder protection, 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 operating performance.)

Another explanation for our finding of a negative interaction effect is suggested in a recent paper by Doidge, Karolyi and Stulz (2001). They argue that controlling shareholders have more incentives to expropriate the minority shareholders in countries with less investor protection, and therefore the agency costs in countries with weaker rule

¹⁶ Dimitrov (2001) shows that firms in countries with weak legal environments are less likely to have

of law are greater. 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.

4.2 Evidence

Table 3 reports our first set of OLS univariate and multivariate regressions. In Panel A, the first column shows a univariate test with Tobin's-Q as the dependent variable.¹⁷ We find that Tobin's-Q and governance are significantly, positively correlated. This supports our hypothesis that firms with better corporate governance have higher market valuation. Columns 2 and 3 show that this result is robust to the inclusion of country and 1-digit SIC code dummies. It is important to note that the governance coefficient doubles and becomes more significant 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 result is 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,

independent directors, since firms are unable to show credible commitment not to expropriate.

¹⁷ All regressions include a 1998 year dummy to indicate 29 firms whose last year of data is 1998.

which is significantly positive, in line with our intuition discussed in section 3 as 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.¹⁸

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 in the US with weaker corporate governance have relatively lower profits. However, ours is the first evidence that a relationship between corporate governance and firm performance holds in emerging markets, which unlike the US is 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 univariate tests of Tobin's-Q and legal indicators (all regressions include 1-digit SIC code and year1998 dummies.) We find only a significant

¹⁸ 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

correlation with Legality, which is the broadest measure of a good legal environment.

However, when we add the interaction with governance in column 4 we find that all three legal indicators are significant at 10%.¹⁹ 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 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 test whether governance is more or less important in countries with better legal systems by including the interaction of firm-level governance and a measure of country-level legal efficiency. We find that this interaction is negative, which indicates that governance is even more important in countries with overall weak legal systems.²⁰ 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 suggest that the 2 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. This could be because in late

with Investment to Assets ratio as another proxy for the future growth opportunities. It was never significant and did not affect our governance results.

¹⁹ 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.

²⁰ Because the interaction term treats governance and legality as symmetric variables, an alternative interpretation of our empirical tests is that a good legal environment matters more for firms with weak firm-level governance. In other words, firms with weak governance have to rely more on the legal system to uphold the investor's rights while well-governed firms are less dependent on the legal system.

1999 firms trading ADRs on US exchanges were required to improve disclosure and minority shareholder protection.²¹ In addition, in 2000 the governments of Brazil and Chile both enacted new laws offering greater protection to minority shareholders.²² We suggest that although the corporate governance rankings reflect required improvements in disclosure and minority rights, they would not be correlated with 1999 data. We also obtain similar results (i.e. all legal indicators are significant at least at 10%) when we exclude these 2 Latin American countries from our regressions. Our finding of the negative interaction effects 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.

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.²³ 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.²⁴

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.

²¹ We find in multivariate tests that firms that list ADRs have higher corporate governance rankings (not shown), which may reflect the mandatory reporting and disclosure requirements of US exchanges.

²² 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 protections to minority shareholders.

²³ The results in Table 4 are robust to the substitution of ROA with Gross Margin, which is defined as EBIT divided by total sales.

²⁴ The important caveat for our interaction results is the small sample –14 countries may not be enough to properly test this hypothesis. We therefore should be cautious in attaching strong interpretations to these results.

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 5, and improves Tobin's-Q by 18% of its standard deviation if the Efficiency score is 8. 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.²⁵

5. Conclusion

Although it is well established that firm-level and country-level shareholder rights and judicial efficiency affects firm value (Gompers et al. (2001), La Porta, et al., 1998, 2001, etc., Lombardo and Pagano, 1998), we address in this paper the question of under what country-level conditions does good corporate governance matter more. We find that firm-level corporate governance matters more in countries with weak shareholder protection and poor judicial efficiency.

We use data from a recent report by Credit Lyonnais Securities Asia (CLSA) that produced corporate governance rankings for 495 firms across 25 emerging markets and 18 sectors. Our empirical tests show that better corporate governance is highly correlated with better operating performance and market valuation, as measured by ROA and Tobin's-Q, respectively. We also find that firm-level governance is correlated with variables related to the extent of the asymmetric information and contracting imperfections that the firm faces, which we proxy with firm size, sales growth (proxy for the growth opportunities) and intangibility of assets. However, the governance-performance relationship is robust to the addition of these control variables.

²⁵ In alternative specifications (not shown) we include GDP per capita to distinguish between financial and

Our results suggest 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, 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 on average have 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. These results support the theoretical findings in Shleifer and Wolfensohn (2002) that firms are unable to completely replicate a good legal environment on their own, but must depend on a supporting efficient judicial system. We find that firms can independently improve their investor protection and minority shareholder rights, to a certain degree, but that 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 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.

legal development . Our results are robust and we find that GDP per capita is not significant

References

- Beck, Thorsten, Asli Demirguc-Kunt and Ross Levine (2001), *Law, Politics and Finance*, World Bank working paper 2585.
- Berkowitz, Daniel, Katharina Pistor and Jen-Francois Richard, 2002, "Economic Development, Legality, and the Transplant Effect", Forthcoming in the *European Economic Review*.
- Black, Bernard, 2001, "The Corporate Governance Behaviour and Market Value of Russian Firms". Forthcoming as "Does Corporate Governance Matter?: A Crude Test Using Russian Data", *University of Pennsylvania Law Review*, 149.
- Black, Bernard and Ronald Gilson, 1998, "Venture Capital and Structure of Capital Markets: Banks Versus Stock Markets", *Journal of Financial Economics* 47.
- Claessens, Stijn; Djankov, Simeon; Lang, Larry H. P. (2000) "The Separation of Ownership and Control in East Asian Corporations," *Journal of Financial Economics* v58, p. 81-112.
- Daines, Robert, 2001, "Does Delaware Law Improve Firm Value?", Forthcoming in the *Journal of Financial Economics*.
- Dimitrov, Orlin, 2001, "Controlling Shareholders on the Board of Directors: A Cross-country Comparison", Purdue University mimeo.
- Doidge, Craig, Andrew Karolyi and Rene Stultz, 2001, "Why are Foreign Firms listed in the US Worth More?" NBER Working Paper No.w8538.
- Easterbrook, Frank H. and Daniel R. Fischel, 1991, "The Economic Structure of Corporate Law". Cambridge, Mass. Harvard Univ. Press.
- Gompers, Paul, Joy L. Ishi and Andrew Metrick, 2001, "Corporate Governance and Equity Prices", NBER Working Paper 8449.
- Himmelberg, Charles P., R. Glenn Hubbard, and Inessa Love, 2001, "Investor Protection, Ownership and the Cost of Capital," Mimeo, Columbia University.
- Himmelberg, Charles P., R. Glenn Hubbard, and Darius Palia, 1999, "Understanding the Determinants of Managerial Ownership and the Link Between Ownership and Performance," *Journal of Financial Economics* 53, 353-384.
- Jensen, Michael, 1986, "Agency Costs of Free Cash Flows, Corporate Finance and Takeovers". *American Economic Review*, 76, 323-329.
- Jensen, Michael, and William Meckling, 1976, "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure," *Journal of Financial Economics* 3, 305-360.

International Country Risk Guide, 2000.

Khanna, Tarun, Joe Korgan and Krishna Palepu, 2001, "Globalization and Corporate Governance Convergence? A Cross-Country Analysis", Mimeo, Harvard University.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert W. Vishny, 1997, "Legal Determinants of External Finance," *Journal of Finance* 52, 1131-1150.

_____, 1998, "Law and Finance," *Journal of Political Economy* 106, 1113-1155.

_____, 1999, "Corporate Ownership Around the World," *Journal of Finance* 54, 471-517.

_____, 2000 "Investor Protection and Corporate Governance," *Journal of Financial Economics* 58, 3-27.

_____, 2002, "Investor Protection and Corporate Valuation," forthcoming in *Journal of Finance*.

Lombardo, Davide and Marco Pagano, 2000, "Legal Determinants of the Return on Equity", Mimeo.

Maher, Maria and Thomas Andersson, 2000, "Corporate Governance: Effects on Firm Performance and Economic Growth", Forthcoming in *Convergence and Diversity of Corporate Governance Regimes and Capital Markets*, Oxford University Press, 2000.

Shleifer, Andrei and Robert W. Vishny, 1997, "A Survey of Corporate Governance," *Journal of Finance* 52, 737-783.

Shleifer, Andrei and Daniel Wolfenson, 2002, "Investor Protection and Equity Markets", Forthcoming in *Journal of Financial Economics*.

Appendix 1: Abbreviated CLSA questionnaire.

Discipline (15%)²⁶

1. Has the company issued a "mission statement" that explicitly places a priority on good corporate governance <...>²⁷?
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.)

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?)

²⁶ Percents reflect the weight in the CLSA weighted average index.

²⁷ 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".

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?

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 % of shares needed to call an ESM (Shleifer, et al., 1999). *Judicial Efficiency* is from the International Country Risk Guide (2000).

Panel A: Firm Level Corporate Governance Index

	Obs	Mean	Median	Minimum	Maximum	Std Dev
<i>All Sample</i>	374	54.11	54.97	11.77	92.77	14.00
Brazil	24	57.26	59.87	43.08	68.22	7.99
Chile	13	61.63	60.62	48.22	69.25	5.18
Hong Kong	35	58.27	59.73	30.90	92.77	14.80
India	68	52.78	51.07	32.33	92.52	10.76
Indonesia	16	37.81	38.52	11.77	62.85	12.91
Malaysia	40	54.44	58.64	21.63	78.30	14.40
Pakistan	9	31.85	26.83	17.25	66.68	15.56
Philippines	17	40.72	34.08	19.40	64.35	13.66
Singapore	38	65.34	66.10	45.37	85.97	9.82
South Africa	32	66.53	67.16	42.62	80.38	8.55
South Korea	18	40.66	39.73	33.00	55.82	5.73
Taiwan	37	53.45	53.13	38.95	74.52	8.39
Thailand	18	53.54	49.69	28.33	79.02	14.53
Turkey	9	43.04	46.58	23.43	56.77	12.90

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

	Tobin's-Q:				ROA:			
	Obs	Mean	Median	Std Dev	Obs	Mean	Median	Std Dev
<i>All Sample</i>	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: Country-Level Judicial Variables

	Legality	Shareholder Rights	Judicial Efficiency
<i>All Sample</i>	13.88	3.57	6.30
Brazil	14.07	3.00	5.75
Chile	14.68	5.00	7.25
Hong Kong	19.09	5.00	10.00
India	12.78	5.00	8.00
Indonesia	9.14	2.00	2.50
Malaysia	16.65	4.00	9.00
Pakistan	8.96	5.00	5.00
Philippines	8.50	3.00	4.75
Singapore	19.51	4.00	10.00
South Africa	14.32	5.00	6.00
South Korea	14.21	2.00	6.00
Taiwan	17.60	3.00	6.75
Thailand	12.92	2.00	3.25
Turkey	11.82	2.00	4.00

Table 2: Governance Determinants

The dependent variable is *Governance*, which is CLSA's firm-level corporate governance ranking. *Log(Sales)* 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. *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 (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 1%, 5%, and 10% respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Log(Sales)	0.98* (1.84)			0.63 (1.29)	1.05** (1.99)	0.67 (1.54)
SalesGR	9.98*** (2.6)			7.65*** (2.18)	8.7** (2.37)	6.7** (2.04)
K/S	-1.48*** (-2.97)			-1.29*** (-3.04)	-1.35*** (-2.98)	-1.48*** (-3.4)
Judicial Efficiency			1.65*** (3.5)		1.7*** (3.5)	
Shareholder Rights		2.7*** (4.5)	1.67** (1.96)	1.9*** (2.9)	0.77 (0.8)	
Legality		1.62*** (7.35)		1.55*** (6.7)		
Intercept	42.5*** (6.1)	19.5*** (5.1)	35.7*** (13.1)	16.9*** (2.3)	26.4*** (3.4)	—
Country Dummies	No	No	No	No	No	Yes
Adjusted R ²	0.06	0.22	0.13	0.23	0.15	0.39
# of Firms	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(Sales)* 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 1%, 5%, and 10% respectively.

<i>Panel A: Dependent Variable = Tobin's-Q</i>						
	(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(Sales)				-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 ²	0.03	0.21	0.30	0.34	0.30	0.33
# of Firms	336	336	336	334	323	333

<i>Panel B: Dependent Variable = ROA</i>						
	(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(Sales)				-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 ²	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 1%, 5%, and 10% respectively.

Panel A:	(1)	(2)	(3)	(4)
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 ²	0.11	0.13	0.14	0.19

Panel B:	(1)	(2)	(3)	(4)
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 ²	0.11	0.13	0.14	0.18

Panel C:	(1)	(2)	(3)	(4)
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 ²	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 1%, 5%, and 10% respectively.

Panel A:	(1)	(2)	(3)	(4)
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 ²	0.12	0.14	0.15	0.20

Panel B:	(1)	(2)	(3)	(4)
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 ²	0.14	0.16	0.16	0.20

Panel C:	(1)	(2)	(3)	(4)
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 ²	0.11	0.14	0.15	0.20

Policy Research Working Paper Series

	Title	Author	Date	Contact for paper
WPS2791	The Static and Dynamic Incidence of Vietnam's Public Safety Net	Dominique van de Walle	February 2002	H. Sladovich 37698
WPS2792	Determinants of Life Insurance Consumption across Countries	Thorsten Beck Ian Webb	February 2002	A. Yaptenco 31823
WPS2793	Agricultural Markets and Risks: Management of the Latter, Not the Former	Panos Varangis Donald Larson Jock R. Anderson	February 2002	P. Kokila 33716
WPS2794	Land Policies and Evolving Farm Structures in Transition Countries	Zvi Lerman Csaba Csaki Gershon Feder	February 2002	M. Fernandez 33766
WPS2795	Inequalities in Health in Developing Countries: Swimming against the Tide?	Adam Wagstaff	February 2002	H. Sladovich 37698
WPS2796	Do Rural Infrastructure Investments Benefit the Poor? Evaluating Linkages: A Global View, A Focus on Vietnam	Jocelyn A. Songco	February 2002	H. Sutrisna 88032
WPS2797	Regional Integration and Development in Small States	Maurice Schiff	February 2002	P. Flewitt 32724
WPS2798	Fever and Its Treatment among the More or Less Poor in Sub-Saharan Africa	Deon Filmer	March 2002	H. Sladovich 37698
WPS2799	The Impact of the Indonesian Financial Crisis on Children: Data from 100 Villages Survey	Lisa A. Cameron	March 2002	P. Sader 33902
WPS2800	Did Social Safety Net Scholarships Reduce Drop-Out Rates during the Indonesian Economic Crisis?	Lisa A. Cameron	March 2002	P. Sader 33902
WPS2801	Policies to Promote Saving for Retirement: A Synthetic Overview	Dimitri Vittas	March 2002	P. Infante 37642
WPS2802	Telecommunication Reforms, Access Regulation, and Internet Adoption in Latin America	Antonio Estache Marco Manacorda Tommaso M. Valletti	March 2002	G. Chenet-Smith 36370
WPS2803	Determinants of Agricultural Growth in Indonesia, the Philippines, and Thailand	Yair Mundlak Donald F. Larson Rita Butzer	March 2002	P. Kokila 33716
WPS2804	Liberalizing Trade in Agriculture: Developing Countries in Asia and the Post-Doha Agenda	John S. Wilson	March 2002	P. Flewitt 32724
WPS2805	To Spray or Not to Spray? Pesticides, Banana Exports, and Food Safety	John S. Wilson Tsunehiro Otsuki	March 2002	P. Flewitt 32724

Policy Research Working Paper Series

Title	Author	Date	Contact for paper
WPS2806 Dirty Exports and Environmental Regulation: Do Standards Matter to Trade?	John S. Wilson Tsunehiro Otsuki	March 2002	P. Flewitt 32724
WPS 2807 The Role of Natural Resources in Fundamental Tax Reform in the Russian Federation	Benoît Bosquet	March 2002	D. Duff 39506
WPS2808 A Capital Accord for Emerging Economies	Andrew Powell	March 2002	E. Mekhova 85984
WPS2809 On the Measurement and Impact of Fiscal Decentralization	Robert D. Ebel Serdar Yilmaz	March 2002	M. Morris 37285
WPS2810 Growth, Distribution, and Poverty in Africa: Messages from the 1990s	Luc Christiaensen Lionel Demery Stefano Paternostro	March 2002	N. Nouviale 34514
WPS2811 The Epidemiological Impact of an HIV/AIDS Vaccine in Developing Countries	John Stover Geoff P. Garnett Steve Seitz Steven Forsythe	March 2002	H. Sladovich 37698
WPS2812 Can Financial Markets be Tapped to Help Poor People Cope with Weather Risks?	Jerry Skees Panos Varangis Donald Larson Paul Siegel	March 2002	P. Kokila 33716
WPS2813 The Collective Model of the Household and an Unexpected Implication for Child Labor: Hypothesis and an Empirical Test	Kaushik Basu Ranjan Ray	March 2002	N. Jameson 30677
WPS2814 Estimating the Endogenously Determined Intrahousehold Balance of Power and Its Impact on Expenditure Pattern: Evidence from Nepal	Gayatri Koolwal Ranjan Ray	March 2002	N. Jameson 30677
WPS2815 Pricing Currency Risk: Facts and Puzzles from Currency Boards	Sergio L. Schmukler Luis Servén	March 2002	E. Khine 37471
WPS2816 Explaining the Migration of Stocks from Exchanges in Emerging Economies to International Centers	Stijn Claessens Daniela Klingebiel Sergio L. Schmukler	March 2002	E. Khine 37471
WPS2817 Does Sequencing Matter? Regulation and Privatization in Telecommunications Reforms	Scott Wallsten	April 2002	P. Sintim-Aboagye 37644