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Abstract

This paper utilizes a new data set from AllianceBernstein that, unlike other corporate governance data, has country-level and monthly-updated firm-level governance ratings for 22 emerging markets countries for almost a five year period. With these data we examine the relationship of firm-level and country-level corporate governance on firm valuation, dividend payout, internal firm performance and other issues. We find a number of interesting results that have implications for corporations, investors and policymakers. First, we find there is a positive and significant relation between firm-level and country-level corporate governance ratings and market valuation. Second, we find this relation between governance and market valuation is non-linear. Specifically, top-rated firms and firms in top-rated countries have significantly better market valuations than other firms, but there is little significant difference in the market valuation between intermediate rated and low rated firms. Third, we find firm-level governance impacts market valuation differently depending on the degree of country governance where the firm is located. Indeed, in countries with weak country-level governance, we find that improvements in firm-level governance can actually lead to significantly lower market valuations. Fourth, since we have firm-level corporate governance ratings on a monthly basis, we examine the effects of changes in corporate governance at the firm level over the specific window of time when the corporate governance ratings have changed. This type of test allows us to overcome the issue of whether better governance causes better valuations, or whether firms with better valuations endogenously choose better governance. Using this test we find some evidence that improvements in corporate governance do cause higher valuations, higher returns on equity, and more efficient usage of capital. Fifth, in an examination of what country-level governance issues influence firm-level governance, we find that the governance stance on corporate governance and equity culture and the political, social, and environmental climate of the country are both positively and significantly related to firm-level governance. Although causation is difficult to determine, this result suggests that a country that is concerned with human rights and environmental issues creates a positive example that corporations seem follow in their firm-level governance. Sixth, in an out-sample analysis of the predictive ability of the governance ratings, we find that firms located in countries with high country-level governance ratings did in fact predict significantly better future risk-adjusted stock return performance. On the other hand, we find that firm-level corporate governance ratings themselves are weaker predictors of future risk-adjusted stock return performance.

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Corporate Governance Ratings in Emerging Markets: Implications for Market Valuation, Internal Firm-Performance, Dividend Payouts and Policy

Abstract

This paper utilizes a new data set from AllianceBernstein that, unlike other corporate governance data, has country-level and monthly-updated firm-level governance ratings for 22 emerging markets countries for almost a five year period. With these data we examine the relationship of firm-level and country-level corporate governance on firm valuation, dividend payout, internal firm performance and other issues. We find a number of interesting results that have implications for corporations, investors and policymakers. First, we find there is a positive and significant relation between firm-level and country-level corporate governance ratings and market valuation. Second, we find this relation between governance and market valuation is non-linear. Specifically, top-rated firms and firms in top-rated countries have significantly better market valuations than other firms, but there is little significant difference in the market valuation between intermediate rated and low rated firms. Third, we find firm-level governance impacts market valuation differently depending on the degree of country governance where the firm is located. Indeed, in countries with weak country-level governance, we find that improvements in firm-level governance can actually lead to significantly lower market valuations. Fourth, since we have firm-level corporate governance ratings on a monthly basis, we examine the effects of changes in corporate governance at the firm level over the specific window of time when the corporate governance ratings have changed. This type of test allows us to overcome the issue of whether better governance causes better valuations, or whether firms with better valuations endogenously choose better governance. Using this test we find some evidence that improvements in corporate governance do cause higher valuations, higher returns on equity, and more efficient usage of capital. Fifth, in an examination of what country-level governance issues influence firm-level governance, we find that the governance stance on corporate governance and equity culture and the political, social, and environmental climate of the country are both positively and significantly related to firm-level governance. Although causation is difficult to determine, this result suggests that a country that is concerned with human rights and environmental issues creates a positive example that corporations seem follow in their firm-level governance. Sixth, in an out-sample analysis of the predictive ability of the governance ratings, we find that firms located in countries with high country-level governance ratings did in fact predict significantly better future risk-adjusted stock return performance. On the other hand, we find that firm-level corporate governance ratings themselves are weaker predictors of future risk-adjusted stock return performance.

I. Introduction

Why is corporate governance important? According to Shleifer and Vishny (1997) the main reason is that corporate governance deals with the mechanisms that ensure that suppliers of capital to corporations receive returns on their investment. These returns to investment are crucial because without them capital will not flow to corporations, causing earnings to fall, employment to drop, and, if the problem is endemic throughout a country or region, economic growth to wane.

Given the importance of corporate governance, a small but rapidly growing literature has examined the impact of corporate governance in emerging market countries where many corporations rely on external capital to finance their growth. This work has generally found that better governed firms have better internal performance and market valuations than firms with weaker governance structures.[1] However, this past literature suffers from significant data limitations. Most previous papers either examine only one country, have only a single cross-section of data, or have to use self-constructed corporate governance indexes that are subject to problems in terms of weighing the most important factors.

In this paper we utilize a new data set from AllianceBernstein which allows us to overcome these limitations. Specifically, we have monthly firm-level and country-level corporate governance ratings from AllianceBernstein for 22 emerging market countries for almost five years. In these data, each firm and country within the AllianceBernstein emerging markets universe receives a corporate governance rating each month that ranges from A+ to D. These data permit us to examine the impact of firm-level and country-level governance on market valuation, internal firm performance and dividend payouts, using a panel data approach that does not suffer from the data limitations faced by previous studies. Furthermore, since we have firm-level corporate governance ratings on a monthly basis, we can conduct an event study in which we examine the effects of changes in corporate governance at the firm level. This type of test allows us to address the issue of whether better governance causes better valuations/firm performance, or whether firms with better valuations/firm performance endogenously choose better governance. To our knowledge, this type of test on the impact of corporate governance at the firm level has not been implemented before in the emerging markets literature.

In addition to the above, the AllianceBernstein data also permits us to examine which aspects of country governance influence firm-level governance. The AllianceBernstein country-level governance rating is based on five components: legal and regulatory infrastructure; government stance on corporate governance and equity culture; macroeconomic and political stability; accounting and auditing standards; and the political, social and environmental climate. Since we have the five component scores for each country, we examine the relation between firm-level corporate governance and these country rating components to identify which of the components are related to firm-level corporate governance. Although causation is difficult to conclusively determine, we identify some policy implications regarding the types of country-level governance policies that may produce better firm-level governance.

Finally, these data allow us to examine the out-of-sample risk-adjusted stock return performance of both firm-level and country-level governance ratings. As a result, we can investigate whether better governance predicts better stock return performance for investors. In these tests we use an approach from the mutual fund literature that is robust to survivorship bias.

[1] See, for example, Black (2001), Durnev and Kim (2005), Black, Kim, Jang and Park (2005), Black, Jang and Kim (2006), Black, Love and Rachinsky (2006), and Klapper and Love (2004), among others.

The rest of the paper is organized as follows. Section II provides a literature review. Section III presents the data and the summary the AllianceBernstein rating system; Section IV presents the methodology and results. In Section V we provide a summary of our main results and conclude the paper.

II. Literature Review

In this paper we examine the effect of firm-level and country-level corporate governance in emerging markets on market valuation, internal firm performance via return on equity, dividend payout, and the interactions of firm-level and country-level governance. All of these topics have received some treatment in the previous literature on corporate governance in emerging markets.[2] In this section we detail the existing literature and relate how our paper contributes to this literature.

II. A. Firm-level governance and market valuation

A number of papers have examined the effect of firm-level corporate governance on firm valuation in emerging markets. The vast majority of these papers find that better firm-level corporate governance is, to some extent, related to higher market valuation. However, the data used in these studies are limited. For example, Black (2001) and Black, Jang and Kim (2006b) examine the effects of firm-level corporate governance in only one emerging market country (Russia and Korea respectively) with one cross-section of data. Durnev and Kim (2005) and Klapper and Love (2004) examine firms in many emerging market countries but again with only one cross-section of data. Finally, Black, Kim, Jang and Park (2006) (for Korea) and Black, Love and Rachinsky (2007) (for Russia) examine time-series data but only for one country.

All of the above papers suffer from a possible endogeneity problem as it is difficult to determine if better corporate governance is causing higher market valuations or if higher valued firms endogenously choose better corporate governance. The endogeneity problem exists in these papers because they lack a suitable instrument through which to implement generalized least square approaches that could correct for possible endogeneity. Two papers that do attempt to deal with endogeneity using an instrumental variables approach are Durnev and Kim (2005) and Black, Jang and Kim (2006a). They both find that after controlling for endogeneity, corporate governance still likely explains market valuations.[3]

This paper extends the literature here in two ways. First, we offer the first paper to use panel data on multiple firms based in multiple countries. These data allow us to examine the effects of corporate governance in a much more thorough fashion than the previous literature. Second, since we have firm-level corporate governance ratings on a monthly basis, we conduct an event study in which we can examine the effects of changes in corporate governance at the firm level over the specific window of time during which the corporate governance ratings have changed. This type of test allows us investigate whether better governance causes better valuations, while avoiding the endogeneity issue.

II. B. Data Issues

[2] For a comprehensive review of international corporate governance see Denis and McConnell (2003) and Claessens (2006).

[3] Black, Jang and Kim (2006a) uses unique features of Korean legal rules to construct an instrument for Korean listed firms. Durnev and Kim (2005) use industry instruments.

The related literature uses various forms of corporate governance data in its analyses. For firm-level corporate governance, Black, Jang and Kim (2006a), Black, Jang and Kim (2006b), Black, Kim, Jang and Kim (2006) use self-constructed indices of corporate governance that are based on data from surveys that were conducted by the underlying stock exchange or other government institutions. Others, like ourselves, use firm-level corporate governance ratings from investment banks (Black (2001), Klapper and Love (2004) and Durnev and Kim (2005)).[4] Finally, Black, Love and Rachinsky (2007) use a number of different firm-level corporate ratings in their analysis.[5] Indeed, one measure of corporate governance that they use is a combined index of these various ratings.

Since Klapper and Love (2004) and Durnev and Kim (2005) conduct a multi-country analysis, they also use legal and country investor protection data to measure the governance level of the countries themselves. However, since the investment bank from which they acquired the firm-level data did not produce or release country-level ratings they instead use other measures of country governance than ratings and from other sources than their firm-level data. For example, Klapper and Love (2004) use measures of legal efficacy from the International Country Risk Guide. Similarly, Durnev and Kim (2005) use a host of sources to obtain legal efficacy and investor protection information about the country.[6]

Our paper, on the other hand, uses firm-level and country-level governance ratings from a single source, AllianceBernstein. Hence, biases that result from obtaining the firm-level and country-level data from different sources are not present in our paper. Moreover, another advantage of the AllianceBernstein data is that while the AllianceBernstein's country-level governance rating takes into account many of the same legal and investor protection issues used by other papers, it also contains many other aspects such as macroeconomic stability and the country's stand on environmental, human rights and other important issues which may affect investors and firm-level governance.

II.C. Country-level governance and market valuation and where does corporate governance matter the most?

Several papers have examined the linkage between country-level governance and market valuation. They generally find a positive relationship between country-level governance and valuation. For, example, in studies that include mostly developed countries, La Porta, Lopez-de-Silanes, Shleifer and Vishny (LLSV) (2002) and Bruno and Claessens (2006) find a strong positive linkage between market valuation and the country-level of protection given to minority shareholders. In studies that exclusively examine emerging markets, Klapper and Love (2004) and Durnev and Kim (2005) both find some evidence that the level of legal and or investor protection in a country are positively related to market valuation.

Three of the previously mentioned studies, Bruno and Claessens (2006), Klapper and Love (2004) and Durnev and Kim (2005), also examine how the relationship between firm-level governance and market valuation is influenced by country-level policies. All find some evidence that there is a stronger positive relationship between firm-level governance and market valuation

[4] Black (2001) uses firm-level corporate governance ratings from Brunswick Warburg investment bank, while Klapper and Love (2004) and Durnev and Kim (2005) use ratings from Credit Lyonnais Securities Asia (CLSA).

[5] Specifically, Black, Love and Rachinsky (2007) use firm-level corporate governance ratings from Brunswick UBS Warburg, Troika Dialog (Russia's oldest investment bank), The Institute of Corporate Law and Governance, The Russian Institute of Directors, and Standard and Poor's.

[6] They use information from La Porta et al. (1998a), La Porta et al. (1998b), Claessens, Djankov and Nenova (1999), the World Fact Book, Pistor, Raiser and Gelfer (2000) and Dyck and Zingales (2002).

in countries with weaker investor protection and judicial efficiency. That is, improvements in firm-level corporate governance do not seem to matter as much in countries with strong investor protection. On the other hand, there is a premium paid for good governance in countries where the protections to investors are weaker.

Our study extends the literature here in that we examine country-level governance with a different type of data that previously used in the literature. As mentioned before, the AllianceBernstein country governance ratings not only take into account legal and investor protection issues (as the previous literature) but also other factors such as macroeconomic stability, the country's policies on human rights, child labor, and environmental policies. Moreover, we have actual ratings (ranging from A to C-) which allow us to examine any non-linearities in the results.

In our study we find, consistent with the above literature, that better country-level governance is positively linked to market valuation. However, in terms of where corporate governance matters most to market valuations we find some very interesting results that in some ways are quite different from the rest of the literature. We present these results in section IV.B.

II.D. Governance and internal firm-performance

Besides market valuation, our paper also examines if firm-level and country-level corporate governance influences internal firm performance, as measured by return on equity. Similarly, Klapper and Love (2004) also investigate this issue on a multi-country approach, with one-cross section of data, using return on assets.[7] They find that firm-level corporate governance is positively and significantly related to return on assets. However, they find mixed results when they examine the relation between country-level governance and return on assets. Specifically, they find that after controlling for firm-level corporate governance, the level of shareholder rights in the country is positively and significantly related to return on assets while the level of judicial efficiency and legality are not significantly related to return on assets.

In a related study Gugler et al. (2004) find that the origin of a country's legal system proves to be the most important factor in a firm's return on investment. They find that firms in countries with a legal system of English origin earn returns on investment that are at least as large as their costs of capital while firms in all countries with civil law systems earn on average returns on investment below their costs of capital.

In our paper, we find similar results to Klapper and Love (2004) for firm-level governance. That is, better firm-level governance does indeed seem to be positively related to return on equity. However, somewhat unlike Klapper and Love and unlike Gugler et al., we find that country-level governance is generally negatively related to internal firm performance. Hence, firms in countries with lower levels of country-level governance have higher return on equity after controlling for firm-level governance. The difference in the results may be due to the fact that we use a more comprehensive measure of country-level governance that encompasses much more than just legal rights and or investor protection. Indeed, when we use a measure of country governance that is strictly composed of only legal and regulatory infrastructure, we find similar results to Gugler et al. That is, namely that firms in countries with better legal rights and regulatory infrastructure have better return on equity (see footnote 17).

II.E. Governance and dividend payout

[7] Core, Guay, and Rusticus (2005) examine this issue in the U.S. and find that better firm-level governance leads to better internal firm performance.

Our paper also examines the relation between corporate governance and dividend payout. The most similar papers to ours in this regard are La Porta, Lopez-de-Silanes, Shleifer and Vishny (LLSV) (2000) and Mitton (2004). LLSV (2000) examine the link between country-level governance and dividend payout. They find that dividend payouts are significantly higher in countries with better country-level governance; in particular, countries that have stronger legal protection of minority shareholders. This result is consistent with an agency theory model in which shareholders perceive a greater risk of expropriation by insiders. Specifically, outside shareholders with better rights will demand higher dividend payouts as they fear expropriation by insiders. Conversely, outside shareholders without strong rights will not be able to demand higher levels of dividend payouts.

Unlike LLSV (2000), Mitton (2004) examines if firm-level governance is related to dividend payouts. Using the same firm-level corporate governance ratings as Klapper and Love (2004), Mitton finds a positive and significant relation between firm-level corporate governance and dividend payouts. However, the effect is limited to countries that have strong investor protection. In countries with weaker legal standards, Mitton finds that there is no significant relation between firm-level corporate governance and dividend payouts.

In our analysis, very similar to LLSV (2000), we find that country-level governance is significantly and positively related to dividend payouts. However, unlike Mitton, we find that after controlling for country-level governance there is a somewhat negative relation between firm-level governance and dividend payout.

II.F. The link between country-level and firm-level governance

Finally, our paper examines the link between country-level governance and firm-level governance. That is, we ask if any particular type of country-level governance policies are related to better firm-level governance. In the literature, Doidge, Karolyi and Stulz (2007) have also examined this question in great detail. They find that country characteristics are crucial to firm-level governance. Specifically, they find almost all the variation in firm-level corporate governance in developing countries is due to country characteristics rather than firm characteristics.

In our analysis we find somewhat similar results. Although causality is difficult to determine, we find that two specific country factors--the government's stand on corporate governance and equity culture, and the political, social and environmental climate--have an impact on firm-level governance.

III. Data

In this section we detail the data used in the study. Since this is the first study using this data set, we describe it in detail. To make this section more readable, we have divided it into five sections that detail the sample period, the AllianceBernstein firm-level corporate governance ratings, the AllianceBernstein country-level governance ratings, other data, and descriptive statistics.

III.a. Sample Period

The sample period for our study is November 2001 to September 2006. All data are monthly unless otherwise indicated. We begin the sample in November 2001 as this is the first time period for which the AllianceBernstein governance ratings are available.

III.b. AllianceBernstein Firm-Level Corporate Governance Ratings

We use the firm-level corporate governance ratings compiled by AllianceBernstein. The ratings are calculated for all firms and countries within the AllianceBernstein Capital Emerging Market Universe. This consists of several hundred firms from many emerging market countries. The inclusion of firms in the AllianceBernstein universe is determined by their inclusion in indexes generated by index providers, particularly the Morgan Stanley Capital International Emerging Markets Index (MSCI EM). While the AllianceBernstein universe does not include a number of non-growth oriented firms in the MSCI EM, it does include about 70 to 85 percent of the total market capitalization of MSCI EM.[8]

A firm-level corporate governance rating is calculated on a monthly basis for each firm that AllianceBernstein includes in its universe. The ratings are based on an AllianceBernstein analyst's answers to a set questionnaire that consists of 58 questions. The questions primarily require answers of yes or no, with scores provided for each yes or no answer. For example, one question asks "Is senior management accessible to investors?" If the analyst answers yes then the firm receives five points; if the analyst answers no then the firm receives zero points. The highest possible score, representing the highest firm-level corporate governance rating that a firm can receive, is 111 while the lowest is a zero.

The analysts that answer the questionnaire all live in the same region as the firms that they survey. Most are locals that grew up in the culture and speak the local language. Also, most of the analysts have advanced graduate degrees from top U.S. and foreign business and economics programs and have extensive experience as analysts.

The questionnaire that these analysts answer is sub-divided into seven sections. Below we briefly describe each on of these sections.

1. Information Disclosure

This section determines whether the company produces financial reports in a timely fashion, maintains an English language webpage, has an American Depositary Receipt (ADR), and other disclosure issues. There are eight questions with the highest possible score being an eight. Hence only eight out of 111 points, or about seven percent of the final firm-level corporate governance score, come from this section.

2. Management Access and Fair Disclosure

This section deals with the accessibility of management, the usefulness of investor relations, the dissemination of information and issues surrounding possible insider trading. There are five questions with the highest possible score being a 12. Hence, about 11 percent of the score is formed from this section.

3. Representation of Data (Accounting)

The questions in this section examine the rigor and consistency of accounting methods, treatments of items such as goodwill, deferred taxation, research and development, and auditor independence. The questionnaire also evaluates transactions such as related-party loans and takes into account the company's accounting track record, deducting points for a change in auditors or

[8] AllianceBernstein does not run a quantitative screen to determine which firms to include in their universe; instead, this is arrived at on a case-by-case basis. One of the requirements to be included in the Alliance emerging markets universe is that firms provide enough information so that corporate governance rating can be assessed.

qualification to the financial statements in the past five years. There are ten questions in this section worth a total of 13 points (about 12 percent of the overall score).

4. Value Creation
This section examines whether management understands the concept of value creation and has a track history of creating value. Issues include stability of management and compensation packages that are linked to suitably challenging performance criteria. The analyst has to determine whether the company is clearly articulating a business direction. There are nine questions in this section worth a total of 24 points (about 22 percent of the overall score).

5. Board and Shareholder Structure
The questionnaire also examines board and ownership structure. The questionnaire contains questions on whether the board of directors is suitably qualified, including whether they have been convicted of bribery or fraud in the last three years. The questionnaire also examines the degree of board independence and uses the best practices of the Institute of International Finance's Code of Corporate Governance as the role model for board independence. There are 12 questions in this section worth a total of 24 points (about 22 percent of the overall score).

6. Capital Management
This section examines the degree of the firm's capital efficiency, and whether the capital is used for the benefit of minority shareholders. For example, the questionnaire asks whether the company is making satisfactory use of its cash flow in the form of dividends or share buybacks, hedging its risks adequately and using appropriate sources of financing for projects and acquisitions. There are seven questions in this section worth 14 points (about 13 percent of the overall score).

7. Ethics, Social Responsibility and Other
In this section the questionnaire asks if the company has a code of ethics, whether it has an equal opportunity policy and whether it explicitly avoids employing under-age labor. It also asks whether the company does business in countries that support terrorism or deals with parties suspected of terrorist activity. In addition, analysts are required to answer the most subjective question of the questionnaire, "Do you trust management?" This question is asked because experience has shown that management's statements may be accurate, but they may still behave in a way that hurts minority shareholders. There are nine questions in this section worth 16 points (about 14 percent of the overall score), with the "Do you trust management" question receiving five points (about 4.5 percent of the total score) for a yes answer.

As seen above, value creation and board and shareholder structure receive the most weight of any of the sections. Indeed, 44 percent of the final score is from these sections.

To calculate the firm-level corporate governance ratings, AllianceBernstein gives firms an A rating if their total score is above 84 out of a total of 111 points; a B rating if their score is between 56 and 83; a C rating if their score is between 28 and 55; and a D if their rating is 27 or below.

Finally at the end of the questionnaire the analyst is asked to provide a directional indicator as to whether he or she thinks the firm's corporate governance is improving or

deteriorating. If improving, the analyst gives a plus sign, if deteriorating the analyst gives a minus sign, and if no change is perceived then the analyst provides no sign. This plus or minus sign is then added to the above-mentioned grade to arrive at the final grade. Hence, a firm that scored a 77 on the questionnaire and was seen by the analysts as having improving corporate governance would receive a final grade of B+.

III.c. AllianceBernstein Country-Level Corporate Governance Ratings

For country-level corporate governance, AllianceBernstein uses a rating system that is also based on a questionnaire answered by analysts in the region. As with the firm-level ratings, the analysts are asked questions that primarily require yes or no responses with scores provided for each yes or no answer. A total of 50 questions are asked worth a total of 100 points. The questions are sub-divided into the following five sections:

A. Legal and Regulatory Infrastructure

This section includes whether the legal system of the country operates efficiently; whether laws related to minority shareholder rights are satisfactory; the quality of the police and courts; whether there is an independent securities regulator; and a host of other legal issues concerning investors. There are 20 questions worth 30 of the 100 total points (30 percent of the final country score).

B. Government Stance on Corporate Governance and Equity Culture

A total of 11 questions are asked in this section on how supportive is the government towards creating good corporate governance and the equity culture of the country. Examples of questions include: Is the legal and regulatory environment and government approach truly supportive of the corporate governance? Does the country have a significant domestic institutional investor base and or a significant retail investor base? Is the country supportive of good corporate governance? Does the stock market have a significant role within the economy? Do large companies dominate the stock market? The 11 questions are worth a total of 30 points (30 percent of the final country score).

C. Macroeconomic and Political Stability

This section examines a host of macroeconomic and political stability issues of the country. There are nine questions including those regarding the quality of financial transparency and financial data of the country; the degree of macroeconomic and political stability; the independence of the central bank; and the degree of corruption in the government. These nine questions are worth a total of 20 points (20 percent of the final country score).

D. Accounting and Auditing Standards

Two specific questions are asked here: Are accounting standards formulated in accordance with International Financial Reporting Standards and/or US Generally Accepted Accounting Principles? Are national standards based on International Standards on Auditing? These two questions are worth a total of five points (5 percent of the final country score).

E. Political, Social and Environmental Climate

In this section eight questions are asked of the analyst. Examples of questions include: Is the country in external or internal conflict/war? Does the country support terrorism? Does the

country have respect for human, political and civil rights? Is there discrimination based on race, sex, disability, language or social status? Does the country support environmental issues and adheres to signed protocols? The eight questions are worth a total of 15 points (15 percent of the final country score).

As seen above, the most important areas for the country-level corporate governance score are the legal and regulatory infrastructure and the government stance on corporate governance and equity culture. Sixty percent of the final country score is based on these two factors.

To arrive at a country-level corporate governance rating, AllianceBernstein gives countries an A rating if their scores is above 76; a B rating if the score is between 51 and 75; a C rating if the score is between 26 and 50; and a D rating if the score is below 26. In addition, similar to the firm-level ratings, the analysts are requested to provide a directional indicator as to whether the country is changing its policies on corporate governance, through a plus for improvement, a minus for deteriorating conditions, and neither for no perceived change. For example, Brazil received a C+ rating, indicating that it scored a low overall score but is making policy changes that are expected to improve country-level governance.

One important difference between the firm-level and country-level corporate governance ratings is that the firm-level ratings change during our sample period of November 2001-September 2006, while the country ratings remain the same throughout the entire sample period. For example, Brazil has a C+ rating throughout each month of our sample period. According to AllianceBernstein, this is because none of the changes in policies since November 2001 have been sufficient to move the overall country score enough to change the overall country rating. [9]

III.d. Other Data

Other data used in this study are from Worldscope and Institutional Brokers Estimates System (IBES). For market valuation purposes we use monthly price to book (PB) and price to earnings (PE) ratios. The price is a month-end price in the local currency. The book value and earnings per share are determined on an annual basis. Specifically, the book value is extracted at the end of the last fiscal year end and earnings are extracted for the 12 months ending in the last fiscal year.

For internal performance, we use return on equity (ROE). This is calculated on an annual basis as (Net Income before Preferred Dividends - Preferred Dividend Requirement) / Last Year's Common Equity × 100). In Table 6 we also use Capital expenditures/sales (Capex/Sales) as a dependent variable so as to measure capital efficiency. Capex/Sales is also calculated on an annual basis and is defined as the (capital expenditures/net sales)×100.

We also use dividend payout as a dependent variable in many of the results presented. The payout measure is calculated as dividends per share/earnings per share. Worldscope calculates this measure by looking through a series of four Worldscope dividend per share definitions and four earning per share definitions and prioritizing the most recent 12 month period available. As a result the data has a quarterly frequency.

[9] It should be noted that in late 2006, after our sample ended, Alliance downgraded the country rating of Venezuela from C- to D.

As control variables we use net assets of the firm, capital expenditure to sales ratio (Capex/Sales), and the debt to equity ratio (Debt/Equity).[10] We also use as a control the growth in earnings per share (EPS Growth). This represents a forecasted expected annual increase in operating earnings over the company's next full business cycle. The forecasts are received directly from contributing IBES analysts.[11] In general, these forecasts refer to a period of between three to five years. As recommended by the data provider, we use the median value of the forecast as opposed to the mean value. The median value is less affected by outliers. Because a significant proportion of EPS Growth observations are missing, we set missing values of EPS Growth equal to zero and include a corresponding dummy variable that is equal to 1 if the EPS Growth data is missing and 0 otherwise (No EPS Growth Dummy).

III.e. Descriptive Statistics of the Data

In Table 1 (Panels A-F) we present the descriptive statistics of our data. Panel A presents the countries used in our sample, the number and proportion of observations associated with each country, and the AllianceBernstein country-level corporate governance rating for each country in our sample (note again that the country-level corporate governance ratings remain the same throughout our sample period). Panel B presents the distribution of observations by firm- and country-level governance rating. Panel C provides the industries in our sample and the number and proportion of observations associated with each industry. Panel D provides the number of firms included in our sample each month. Panel E presents the correlations between all the variables; and Panel F provides some summary statistics.

Several points are noteworthy. First, we create several variables from the firm-level and country ratings that we later use in our analysis. Firm Rating 1-3 is a variable in which the firm receives a value of three if it has any A rating, i.e. (A+, A, A-), a two if it has any B rating (B+, B or B-), and a value of one if it has any C rating (C+, C or C-). Country rating 1-3 is similarly defined for country ratings. Firm rating 1-9 is a variable in which a firm that has an A+ rating receives a value of nine, a firm that has an A rating receives a value of eight, decreasing incrementally until our lowest firm rating of C-, which receives a value of one. Country rating 1-9 is similarly defined for country ratings. No firms or countries in our sample had a rating below a C-.

Second, our data, like most emerging market data, is subject to significant outliers which, if included, heavily influence the results. As a result we exclude these outliers. We applied a number of different rules to exclude these outliers with relatively similar results for the tests performed throughout the paper.[12] The estimation results reported here use the rule of eliminating any firm observation in the top and bottom two percent of the distribution of the

[10] Capex/Sales is calculated on an annual basis and is defined as the (capital expenditures/net sales)×100. Debt to equity is defined as ((long term debt + short term debt + current portion of long-term debt)/common equity)×100. It also is calculated on an annual basis.

[11] IBES is a company owned by Thomson Financial. They survey sell side analysts forecasts for firm future earnings, growth, valuation, etc. and then sell the forecasts to the public.

[12] For example, we tried excluding the top and bottom one percent of the distribution. While we had relatively similar results to that of excluding the top and bottom two percent of the distribution, we still were including some very large outliers for the PE ratio that skewed the results of these regressions. We also tried using subjective outlier rules of excluding any PB ratio above 10 and below -10 and any PE ratio or return on equity ratio above 200 and below -200. While these subjective rules all produced relatively similar results to those reported here, we had to exclude between 5 and 7 percent of the total observations to use these rule, which we felt excluded too many observations.

dependent variable. Hence, when the dependent is PB, observations associated with the top and bottom two percent of the distribution of PB are eliminated. We proceed similarly when PE or ROE ratios are the dependent variables. When Dividend Payout is the dependent variable we only exclude those firm observations that are in the top two percent of the distribution of Dividend Payout since many firms do not pay any dividends at all. The sample used to generate descriptive statistics (Table 1, Panels A-E) excludes all observations with outlier values of PB, PE, ROE, or Dividend Payout.

The descriptive statistics show some interesting results. As can be seen in Panel A, six countries (Taiwan, South Africa, India, Korea, Brazil and China) account for approximately 69 percent of the sample. Panel B indicates that there are generally more pluses than minuses in the firm-level governance ratings. Panel C illustrates that over 50 percent of the sample is composed of just four industry sectors: financials, information technology, materials, and telecommunications services. Panel D indicates that the number of observations varies somewhat each month. This is because AllianceBernstein is continually adding and dropping firms from its universe and the fact that firms with financial ratio data in the top and bottom two percent of the distribution are excluded from the sample. In Panel E the correlations between the variables show that most of the variables are not significantly correlated to each other. The firm rating 1-3 and firm rating 1-9 variables are, unsurprisingly, very highly correlated. Similarly, the country rating 1-3 and country rating 1-9 variables are also very highly correlated.

In Panel F of Table 1 we see that there are a total of 12,155 monthly firm level observations after excluding the outliers. The vast majority of the observations are of firms that receive A or B firm-level corporate governance ratings. Indeed, only 766 of the monthly firm-level observations (6.3 percent of the sample) contain a C level firm rating. Among firms located in A rated countries, the number of C rated firms is very low, with only 35 observations (1.3 percent of the total A-country observations).

Panel F also shows that firm-level governance follows country-level governance to some extent. In A rated countries, approximately 50 percent of the firms receive an A rating for firm-level corporate governance. In B and C rated countries, the percentages fall off to 29 percent and 18 percent respectively. Hence, better country governance seems to foster better firm level governance. These results are consistent with Doidge, Karolyi and Stulz (2007) who find that country-wide governance policies influence firm-level corporate governance.

The summary statistics in Panel F also illustrate that A rated firms have higher PB, ROE and Debt/Equity ratios than other firms. Furthermore, the results indicate that C rated firms have higher Capex/Sales ratios, indicating that these firms are either disproportionately from industries that use more capital, or that they do not use capital as efficiently as higher rated firms.

Our finding that lower rated firms will have higher capital to sales ratios is consistent with predictions of Klapper and Love (2004). Specifically, individuals who invest in firms with high capital intensities will not require strong firm-level corporate governance standards as there is little free capital left with which to abscond. Conversely, a firm with a low degree of capital intensity will be forced by outside investors to have better firm-level corporate governance as it has many intangible assets that can be stolen by insiders.

One surprising result is that A rated firms (for firm-level governance) actually have lower EPS Growth averages than C rated firms. This is surprising, to some extent, as high growth firms require outside financing and hence may need to have better corporate governance standards to attract outside capital.

Finally, the No EPS growth dummy indicates about 19 percent of the sample as a whole did not have growth data. The growth data were more extensively available for A rated firms than for of B and C rated firms.

IV. Methodology and Results

IV.A. PB, PE, ROE and Dividend Payout results

In Tables 2 and 3 we use a fixed effects pooled cross-sectional time series estimation approach to examine the effect of firm-level (Table 2) and country-level (Table 3) governance ratings on PB, PE, ROE and dividend payout. The fixed effects model allows us to pool the monthly cross-sections together as it controls for omitted variables not in the actual regression. Our fixed effects model controls for firm-specific and date-specific characteristics through the inclusion of firm-specific dummy variables and dummy variables for each of the 59 months in our sample, excluding references.

As controls variables we use firm-level log(assets), Debt/Equity, Capex/Sales, EPS Growth, and the No EPS Growth dummy. In Table 2 we use as an additional control variable, country rating 1-9, which proxies the level of country governance that the firm is located, whereas in Table 3 we use firm rating 1-9 which proxies the level of firm governance.[13]

The values of PB and PE reported in our sample could change each month. Hence, in the cases where the dependent variable is PB or PE, we pooled all of the 59 monthly cross-sections in our regression estimations. When we use ROE as the dependent variable we only pool annual observations from each December of our sample, as the data are only updated by Worldscope on an annual basis. For dividend payout the data are updated each quarter, hence we pool the quarterly observation from every March, June, September and December.[14]

The results presented in Tables 2 and 3 indicate that better firm-level and country-level governance generally produces higher PB and PE ratios. Table 2 shows that firms with firm ratings of B and C have significantly lower PB ratios than A rated firms, and that B rated firms have significantly lower PE ratios than A rated firms. The table also shows that the relation between valuation and firm-level governance is non-linear. A rated firms generally outperform B and C firms, but B firms do not outperform C firms in terms of valuation (we independently test

[13] Note that robustness tests using the variables firm rating 1-3 in Table 2 and country rating 1-3 in Table 3 were very similar to those reported in the paper. Note also that we do not use dummies for industry in the regressions reported in Tables 2-3. This is because industry dummies are not compatible with the fixed effects model because they are perfectly collinear with the firm-specific dummy variables.

[14] One of our concerns in these fixed effects regressions is that when using PB, PE and dividend payout as the dependent variables, the dependent variable changes monthly (PB, PE) or quarterly (dividend payout), while all of the control variables (log (assets), Debt/Equity, Capex/Sales, EPS growth) change only annually. However, since the annual variables are only control variables we felt it would be appropriate to use non-annual data for the dependent variable. We thank Jeffrey Wooldridge for making this point. Nevertheless, as a robustness test, we estimated fixed effects regressions where we used, in the case of PB and PE, 12 separate pools. For example, we created a January pool that used only observations from the month of January (January 2002, January 2003, January 2004, January 2005, January 2006). We then did the same thing for each of the other 11 months. As a result, each of the 12 pools contained only annual data. We did the same for dividend payout except that we used four separate pools (March, June, September and December). We then applied models used in Tables 2 and 3 on the separate pools. The results of this exercise indicated that the point estimates were very similar to those presented in Tables 2 and 3. However, due to the smaller number of observations we only find significant results in about half of the 12 separate pools. The results using these separate pools are available upon request.

for the difference between B rated and C rated firms (as noted by the ### indicators)). Indeed, the C rated firms actually had a significantly higher PE ratio than the B rated firms.

Table 3 shows much the same using country-level governance ratings. That is, firms located in countries with A rated country governance have significantly higher market valuations, yet there is little difference in market valuation between firms located in B and C rated countries. Hence, the results in Table 2 and 3 suggest that while better firm-level and country-level governance leads to better market valuations, only A rated firm-level and country-level governance is valued by the markets.[15]

Before discussing the rest of the results from Tables 2 and 3, we should note that we cannot determine econometrically if the higher valuations are actually caused by better governance. That is, it is possible that the relation between governance and valuation reflects an endogeneity, in which higher value firms choose better governance. Our analysis in Tables 2 and 3 lacks, as do most other papers on this issue (the exceptions are Durnev and Kim (2005) and Black, Kim, Jang and Park (2006)), an effective instrument to deal with this endogeneity issue.

The results of Tables 2 and 3 also show some interesting results about ROE and dividend payout. Table 2 indicates that A rated firms have significantly higher ROE than B rated firms. Similarly, A rated firms have higher ROE than C rated firms but the difference is not significant. These results are similar to Klapper and Love (2004) who find the better governed firms generally have higher returns on assets. Table 3, on the other hand, shows that firms in B and C rated countries have significantly higher ROE than firms in A rated countries. Hence, firms in countries with weaker country corporate governance and strong firm-level governance have a high ROE while firms in countries with strong country corporate governance and weak firm-level governance have lower ROE. These results make some intuitive sense. One would surmise that better run firms, regardless of country-level governance, will have better ROE. Furthermore, firms located in lower rated countries (controlling for firm-level governance) will likely have higher ROE as these countries are not as developed as the A rated countries and hence have higher rates of economic growth as they attempt to converge with other countries. Indeed, the average annualized real rate of GDP growth over the period 1999-2006 in A rated countries 4.06, while it was 4.56 percent in B rated countries and 5.05 percent in C rated countries.[16] This difference is further exacerbated by the fact that A countries only represent 8 percent of the total GDP of our sample, whereas B countries represent 40 percent and C countries represent 52 percent (as large countries like Brazil, China and Russia are C rated countries). These higher rates of economic growth would serve to create higher ROE.[17]

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[15] Note that we also conducted tests similar to tables 2 and 3 in which we examined the differences between the pluses and minuses of the grades. For instance, we examined the differences between A+ rated firms and A- firms, the difference between B+ and B- firms, and the differences between C+ and C- firms. We find that B+ firms had significantly higher price to book and price to earnings than B- firms, however, C- firms actually had a significantly higher price to book ratios than C+ firms. Furthermore, A- firms had significantly higher price to earnings and price to book ratios than those of A+ firms. These results are available upon request.

[16] The annualized real GDP growth rates were calculated from data provided by the IMF and Deutsche Bank. The averages were calculated by taking an equally weighted average of all of the countries in the rating group.

[17] Our results which indicate that better country governance is actually negatively related to internal firm performance is somewhat counter to what Gugler et al. (2004) find. As mentioned in section II.D, they find that firms in countries with a legal system of English origin earn returns on investment that are at least as large as their costs of capital while firms in all countries with civil law systems earn on average returns on investment below their costs of capital. Hence, firms in countries with better legal standards have returns on investment. To examine this issue further, we rank ordered countries from top to bottom in terms of their legal and regulatory infrastructure score

Of course another explanation for the higher ROE in lower-rated countries maybe that we are not controlling for earnings growth well enough in our regressions. We use EPS growth as a control variable but there are about 19 percent of the cases where we do not have the EPS growth data available and most of these are in B and C country cases (see Table 1, panel F). If firms in B and C rated countries have higher rates of growth and we cannot adequately control for this, then it would not be surprising that firms located in these countries would have higher ROE's than firms in A rated countries.

For dividend payout, the results of Tables 2 and 3 are quite the opposite of the ROE results. Whereas we found that firm-level governance was positively related to ROE, we find better firm-level corporate governance is, to some extent, negatively related to dividend payout as C rated firms have significantly higher dividend payout ratios than either A- or B rated firms. Further, while we found evidence that country-level governance was negatively related to ROE, we find a positive and significant relation between country governance and dividend payout that is consistent with LLSV (2000) and Mitton (2006). Hence, on average, a firm with poorer firm-level governance that is located in a country with strong country-level governance will have significantly higher dividends payouts than a firm with strong-firm level governance that is located in a country with weaker country-level governance.

In terms of explaining the above dividend payout results, first consider the positive relation between country-level ratings and dividend payout. Since the minority shareholder rights are generally stronger in countries with higher country-level governance ratings, firms located in these countries will tend to pay higher dividends as the minority shareholders fear expropriation by insiders. Conversely, since minority shareholder rights are weaker in lower rated countries, firms in these countries will tend to pay lower dividends. However, after controlling for these country effects, it is reasonable to assume that firm-level corporate governance would be negatively related to dividend payout. This is because better firm-level governance would imply that investors could better trust the company to efficiently reinvest earnings in the interest of minority shareholders. In other words, firms with better governance would not be forced to payout higher dividends since investors trust management with their earnings, whereas firms with weak firm-level governance would have to pay higher dividends as the investors do not trust the company with their earnings.

Also consistent with LLSV (2000) and Mitton (2005) we find a negative and significant relation between dividend payout and growth opportunities. This suggests that investors will allow firms with strong growth opportunities to reinvest rather than payout dividends.[18]

IV.B. Where does corporate governance matter the most?

(the first of the five components that go into the country rating). We then created three country groups, A, B, and C, in which A countries had legal and regulatory infrastructure scores in the top third of the distribution, B countries had a legal and infrastructure score in the middle third, and C countries had a legal and regulatory infrastructure score in the bottom third. We then re-ran the analysis in table 3 using these definitions as the measures of country governance. When using return on equity as the dependent variable we found a positive and significant relationship between better legal and regulatory structure score and return on equity. Hence, when the measure of country governance only focuses on legal issues we find results that are broadly similar to Gugler et al. who also only focus on legal aspects of country governance.

[18] Note that we did break the sample into two groups (first 30 months and last 29 months) and the repeated the analysis conducted in tables 2 and 3. We found broadly similar results to those reported in tables 2 and 3.

As mentioned in the section II.C., one of the issues we examine is where does corporate governance matter the most. In the previous literature, Bruno and Claessens (2006), Klapper and Love (2004) and Durnev and Kim (2005), have all found some evidence that the effect of corporate governance on market valuation lessens as country-level investor protection improves. That is, as country level investor protection improves, firms do not get as much impact from improvements in firm-level governance. To examine this further, we break the sample used in Table 2 into three separate sub-samples. The first sub-sample examines only firms in A countries, the second sub-sample examines only firms in B rated countries (which consists of B+ or B rated countries as there are no B- rated countries) , and the third sub-sample examines only firms in C rated countries (which consists of C+, C and C- rated countries). We then repeated the models used in Table 2 on these three separate samples.

The results are reported in Table 4, panels A-C. For firms in A and B countries we find results on market valuation that are quite consistent with the past literature. Specifically, we find that the market valuation of firms in A countries is not influenced much by firm-level governance. On the other had, the market valuation of firms in B countries are positively and significantly influenced by better firm-level governance as coefficients on the B and C firm-level dummies are generally negative and significant. Hence, in countries where country governance is weaker, firm-level governance can improve valuations.

For C countries, the lowest rated countries, we find results that are completely counter to the previous literature. We find that better firm-level governance is actually negatively related with market valuation. That is, firms with B and C firm-level governance ratings actually have significantly higher valuations than A rated firms.

Hence, our results in table 2 which show that firm level governance is positively related to better valuations, is largely driven by the results from firms in B countries (which is the largest sub-sample by far).

In terms of explaining the results from C countries consider the following quote from Doidge, Karolyi and Stulz (2007), p. 3)), who examine the impact of country-level governance on firm-level governance. They state:

> "Countries matter because they influence the cost that firms incur to bond themselves to good governance and the benefits they receive from doing so. Better governance reduces a firm's cost of funds only to the extent that investors expect the firm to be governed well after the funds have been raised. It is, therefore, important for the firm to find ways to commit itself credibly to higher quality governance. However, mechanisms to do so may be unavailable or prohibitively expensive in countries with poor investor protection and poor economic development. For instance, credible external verification of a firm's income disclosures may not be available because insufficient economic development means that the necessary infrastructure for such verification is not available. Consequently, a firm can have potentially valuable growth opportunities, yet it takes no steps to have good governance because the tools required are too expensive or not even available in its country. Perhaps the most important benefit to a firm from having good governance is that it facilitates access to capital markets. But this benefit is worthless if a firm is located in a country with poor financial development. Because of this poor development, the firm finds it expensive to raise funds, so that it chooses to raise a smaller amount

> of funds and hence, benefits less from better governance. As a result, firms with good growth opportunities may have poor governance because they are in a country where financial development and investor protection are poor. In other words, it is not worth it for the firm to take steps to bond itself to better governance."

Using this as background consider a firm in a C rated country. The costs of the firm bonding itself to good governance are very high as the country lacks the needed infrastructure to make good governance possible. Moreover, the benefits that this firm will receive from good firm-level governance will likely be small as again the country specific policies hamper raising money and other issues. Add to this the fact that too much monitoring and legal protection may also hurt managerial incentives (see Burkart, Gromb and Panunzi (1997) and Bruno and Claessens (2006)), and it maybe quite rational for investors to actually value A rated companies lower than B and C rated companies in C countries.

Conversely, in B countries, because the country level of governance is higher, the costs of firms bonding themselves to good governance are lower and the benefits higher. Hence, firms that do pursue better firm-level governance are rewarded with higher market valuations. This contrasts with A countries where the country governance standards are so strong that improvements in firm-level governance do not have that much an impact.

In terms of ROE and Dividend Payout, the breakdown of the sample into the three groups (Table 4, panels A-C) is less revealing than for market valuation. We still see somewhat similar relationships to what we found in table 2: ROE is generally higher and dividend payout is generally lower as the level of firm-level governance increases (the one major exception is ROE in C-rated firms in A countries (the coefficient is positive and significant indicating C firms have higher ROEs than A firms in A countries), however there are only 35 observations for this case).

IV.C. The effect of changes in firm-level corporate governance ratings

In our sample, there are several hundred cases where the firm-level governance rating changes from the previous period. This is unlike the country-level corporate governance ratings which remain static throughout our sample. These changes in firm-level corporate governance allow us to examine the effects of corporate governance change on a micro level, something that has not, to our knowledge, been examined in the previous emerging markets literature due to a lack of panel data. Since we can examine what actually happens to market valuation, internal performance, and dividend payout before and after the change in governance, we can overcome, to some extent, the issue of whether better governance causes better valuations, or whether firms with better valuations endogenously choose better governance.

In Table 5 we use OLS regression to examine periods immediately before and after the change in firm-level governance ratings to see if PB, PE, ROE and dividend payout significantly change before and after these changes in the firm-level ratings. Specifically, we examine four windows of time surrounding the time of the ratings change: one month before and after the change, three months, six months and 12 months.[19]

To examine the effect of the change in ratings we create a variable titled "firm rating change increments" which proxies the degree of the firm rating change. This variable is defined as follows: For each rating grade increase (decrease), the firm rating change increment variable

[19] The windows always include the month of the ratings change. For example, the one-month pre-post window is a total of three months: one month before the change, the month of the change, and one month after the change.

increases (decreases) by one. For example, a firm that sees its corporate governance rating increase from a B to B+ receives a value of one. A firm that sees its corporate governance rating decrease from B to C receives a value of negative three. The largest increase (decrease) in the firm rating grade change increment variable experienced by any one firm at one time was 6 (-6).

We use several control variables in the regression. First, to control for the fact that the country stock market may have changed dramatically over the window of time before and after the change in the firm-level rating, we use the mean monthly returns of the country stock market index over the window of time as a control variable.[20] Second, we use the change in Debt/Equity, Capex/Sales, log(Assets), and EPS Growth over the window of time to control for any major changes that took place in the companies underlying structure during the period surrounding the firm-level ratings change. Third, we use the No EPS Growth dummy to designate if the observation did not have EPS Growth data. Fourth, to control for the other country effects we use the country rating 1-9 variable. Fifth, and finally, we include dummies for industry, using the same industries listed in Table 1.C, excluding a reference. The coefficients associated with industry dummies are not presented in Table 5.[21]

One important item to note with these regressions is that some of these variables cannot change over the 1-month and 3-month windows as their frequency is quarterly or annual. For example, the ROE data is only annual, so the 1-month and 3-month windows will often indicate no change.

The results of this analysis show several interesting findings.[22] First, changes in corporate governance are somewhat related to market valuation and internal performance. Specifically, we find a significant (at the 10 percent level) and positive relation between the PB ratio and the magnitude of the change in the firm level corporate governance rating using both the one-month and 3-month pre/post windows. Hence, improvements (declines) in firm-level corporate governance are positively related to higher (lower) PB ratios. These results provide some evidence that the market does value improvements in corporate governance; however they should be viewed with caution as we do not find similar results for the PE ratios. Indeed, we find that PE ratios are not significantly related to changes in the firm-level governance ratings whatsoever.

Second, we find a significant (at the 5 percent level) relation between ROE and the magnitude of the change in the firm level corporate governance rating using a 12-month pre/post window. This finding indicates that firms do perform better internally, as measured by ROE, after improvements in corporate governance. We do not find a significant relation for the shorter window period, attributable to the fact that ROE is only updated once a year in the data.

Third, and finally, we find no significant relation between dividend payout and changes in the firm-level corporate governance rating. In three of the four windows (all but the 6-month window) the coefficient on firm rating change increment is negative which is, to some extent, consistent with our results in Table 2 indicating that dividend payout is negatively related to improvements in firm-level corporate governance after controlling for the country effect.

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[20] We use the local Morgan Stanley Capital International country indexes in local currency to calculate this variable.

[21] Robustness tests that exclude the industry dummies generally find the same results. The only major difference is that the one year ROE result is significant at the ten percent rather than five percent when we exclude the industry dummies.

[22] Note that the reason for the different number of observations in table 4 is because for some of the ratings changes we do not have enough data to span the entire window of time. For example, a change in rating that takes place near the beginning of our sample period (November 2001) would not be included in the 12-month window as we do not have 12-months of data between the time of the change of the rating and the beginning of our sample.

IV. D. Changes in firm-level corporate governance ratings and capital efficiency

Using the same methodology as described in Table 5, we separately investigated if changes in firm-level corporate governance rating are related to capital efficiency. This is an interesting relationship to examine as theory would suggest that better governed firms would be more efficient at using capital since mangers at firms with good governance structure are, in a sense, "at gunpoint." If they fail to employ the firm's capital properly they will be replaced. Conversely, in a firm without strong governance structures, managers would not face this threat and probably will not be as efficient with capital spending.

To examine the effect of changes in firm-level governance ratings on capital efficiency we examined the same model used in Table 5 except that the change in the capital to sales ratio over the periods before and after the change in the ratings is used as the dependent variable.[23] The results are provided in Table 6 and they indicate some evidence (at the 10 percent level in the 12-month window) that improvements in governance ratings lead to better capital efficiency. Specifically, we find that an increase (decrease) in firm-level governance ratings causes the Capex/Sales ratio to fall (raise) indicating that capital is being used more efficiently after improvements in corporate governance. We do not find any significant results for the other windows but to some extent, this is to be expected, as Capex/Sales is only updated annually.

IV.E. Is there non-linearity in the impact of changes of governance ratings on market valuation?

In results described in section IV.A and reported in Table 2, we find a non-linear relationship between firm-level governance and market valuation. Specifically, we find that firms with A ratings had significantly higher PB and PE ratios than other firms, however there was not much of a difference between the market valuations of B and C rated firms. To further test if this non-linearity holds, we separated the sample used in Table 5 into two sub-samples. The first sub-sample uses only those cases where before and after the change in the rating, the firm's rating remains in the range of B to C minus. For example, a firm that saw its governance rating move from C+ to B, or from B- to C- would be included in this sample. For the second sub-sample we use all other ratings change observations. If the non-linear results that we report in Table 2 hold, we should find that the changes in ratings in the first sub-sample (B to C minus) do not have much an impact on market valuation while the changes in the ratings in the second sub-sample have much more impact on market valuation.

The results of this test are reported in Table 7. They show that indeed, the non-linear relationship holds, to some extent. We find in the B to C minus sample (Panel A) that there is never a positive and significant relationship between the firm rating change increment variable and market valuation. Indeed, for the 12-month PB, 12-month PE, and the 1-month PE cases we actually find a negative and significant relationship between ratings changes and market valuation. In Panel B, which uses of all other ratings change observations, we find similar results to that reported in Table 5. That is, in the 1-month and 3-month PB cases we find a positive and significant relationship between PB and firm-level governance ratings.

[23] We did not attempt to examine capital efficiency in the models used in Tables 2 and 3 because estimation of capital efficiency requires strict controls for industry as some industries inherently use more capital than others. The fixed effects pooled model is not compatible with industry dummies since they are perfectly collinear with the firm-specific dummy variables. Also note that similar to Dividend Payout, we exclude those firm observations that are in the top two percent of the distribution of Capex/Sales as many firms have very low values for Capex/Sales.

IV.F. Tests of the relation between country characteristics and firm rating

The AllianceBernstein data also permit us to examine which aspects of country-level governance influence firm-level governance. As stated in Section III, the country governance rating is based on five components: legal and regulatory infrastructure, government stance on corporate governance and equity culture, macroeconomic and political stability, accounting and auditing standards, and the political, social, and environmental climate. Since we have the five component scores for each country, we examine the relation between firm-level corporate governance and these country rating components to identify which of the components is related to firm-level corporate governance. In this way, we can identify some policy implications about the type of country governance changes that may indeed produce better firm-level governance.

To test for the above we use a fixed effects pooled cross-section time series estimation approach in which we regress the component scores of the country-level ratings on firm-level ratings. Specifically we use the variables firm rating 1-9 and firm rating 1-3 as the two dependent variables. Again, firm rating 1-9 assigns a value of 9 to a firm that has an A+ rating and a value of 1 to a firm that has a C- rating. Firm rating 1-3 assigns a value of 3 to a firm that has any A rating (A+, A, or A-) and a value of 1 to a firm that has any C rating (C+, C, C-).

For this test, we use all of the available observations in the sample period. This includes observations that were excluded because the financial ratio data were in the top or bottom two percent of the distribution, and observations that were excluded because of lack of financial ratio data. Hence, we use a total of 14,961 observations as compared to 11,813 observations in the PB regression on Table 2.

The results are presented in Table 8. We find that the governance stance on corporate governance and equity culture, and the political, social, and environmental climate of the country are both positively and significantly related to firm-level governance. That is, in countries that have high scores on these two measures, we see significantly higher ratings for firm-level corporate governance. As described in Section III, the government stance on corporate governance and equity culture contains issues such as whether the country is supportive of good corporate governance and how much influence the stock market has on the overall economy. To a large extent, these results are not surprising as many papers have found the country-level investor to be important for better firm-level corporate governance (for example, see LLSV (2000)). What is more surprising is that the political, social, and environmental climate of the country is positively related to better firm-level governance. Again, this component encompasses such issues as whether the country is conflict and whether the country supports human rights and environmental issues. This result suggests that a country which is concerned with human rights and environmental issues creates an example that corporations follow. That is, a government that cares about these basic issues fosters corporations that care how they operate.

Of course, the above findings may be unrelated to better firm governance as we cannot determine the direction of causality. Indeed, it may be that having firms with better governance fosters better country governance. However, according to a number of papers (e.g., LLSV (1998-2002) and Doidge, Karolyi and Stulz (2007)), country-level governance impacts firm-level governance far more than the other way around. According to Doidge, Karolyi and Stulz (2007), country-level policies heavily impact firm-level governance because they influence the costs that firms incur to bond themselves to good governance and the benefits that firms receive from doing so.[24] For example, a credible method of verifying a firm's income statements may not be available due to insufficient infrastructure in the country.

[24] Doidge, Karolyi and Stulz (2007), p. 3.

Hence, our results indicating that the governance stance on corporate governance and equity culture, and the political, social, and environmental climate of the country are both positively and significantly related to firm-level governance may provide some insights into the types of policies that countries want to follow in order to produce better firm-level governance.

IV.G. The out-of-sample stock return performance of corporate governance ratings

The final issue that we investigate is whether the firm-level and country-level corporate governance ratings can help predict risk-adjusted stock return performance. To answer this question we examine the out-of-sample stock performance of both the firm-level and country-level ratings. Specifically, we create two separate three-year out-of-sample periods: 2002-2004 and 2003-2005. To generate these two samples we take all the firms that received firm-level corporate governance ratings at the beginning of the sample (December 31, 2001 for the 2002-2004 sample and December 31, 2002 for the 2003-2005 sample). These firms were then followed for the next three years, and the monthly returns for each firm were collected during the out-of-sample period. To prevent survivorship bias, firms that were delisted before the end of the sample period were not excluded. Instead, the returns of the firms that dropped out of the sample were treated as follows. First, we use the actual monthly returns of the firm until it drops out of the sample. Once it drops out, the monthly returns then become the returns of the closest matching firm that survived the entire out-of-sample period. To find the closest matching firm we used an algorithm that is described in Appendix I. The algorithm matches firms on firm-level and country-level governance ratings, Capex/Sales, dividend payout, and log(assets).[25]

To examine the stock return performance of the firms we use the Sharpe ratio, defined as the mean monthly return divided by the monthly standard deviation of the firm's stock. All returns are in US dollars to permit comparison across countries.

The results are organized in four panels of Table 9. Panel A uses a regression analysis in which firms with firm ratings of A (any firm rating of A+, A, or A-) are the reference group and dummy variables are used for B rated and C rated firms. In this regression, the constant term provides the mean Sharpe ratio of A rated firms during the out-of-sample period. The coefficient on the B rating dummy provides the mean difference in Sharpe ratio between B rated firms and the A rated firms. The coefficient on the C dummy provides the mean difference between C rated firms and A rated firms. Negative and significant coefficients on the B and C dummies indicate that the Sharpe ratio performance of B and C firms is significantly less than that of A rated firms.

Panel B uses the same approach as Panel A but uses country ratings instead of firm-level ratings. Panel C replicates Panel A but also uses country rating 1-9 to control for country-level rating effects. Finally, Panel D replicates Panel B. but also uses firm rating 1-9 to control for firm-rating effects.

In the analysis of firm-level ratings, we find some evidence that firm-level ratings can predict future stock risk-adjusted return performance, although the results are weaker than for country-level ratings. Before controlling for the country-level governance (Panel A), we find that B rated firms in the 2002-2004 sample have significantly weaker performance than A firms. The other coefficients, although not significant, have negative coefficients, indicating that these lower rated firms generally perform worse than A rated firms. However, when we control for the country-level effect (Panel C) we find that the significance levels on the coefficients generally fall. Indeed, none of the coefficients in Panel C remain negative and significant. Thus, after we

[25] For the 2002-2004 case, 8 out of 178 firms (about 4.5%) do not survive the entire 36 month out-of-sample period. For the 2003-2005 case, 11 out of 279 firms (about 3.9%) do not survive the entire 36 month out-of-sample period.

control for country-level effects, the ability of firm-level governance ratings alone to predict future stock performance is limited at best.

Panels B and D indicate that firms located in countries with high country-level governance ratings perform significantly better than firms located in countries with lower country-level governance ratings. However, similar to what we find in Tables 2 and 3 we do not find a significant difference between firms in B rated countries and firms in C rated countries (we tested this independently (as noted in the table by ###)). Hence, only firms in top-rated countries predict significantly better risk-adjusted stock return performance. These results were identified both before and after controlling for firm-level governance (Panels B and D).

In sum, while an investor would obviously be advised to consider many other aspects before deciding upon investing in a firm in an emerging market, our results in this section suggest that investors should consider country governance and then firm-level governance in the search for better future stock risk-adjusted return performance. These results are broadly consistent with Doidge, Karolyi, and Stulz (2007) who find the country-level characteristics matter a great deal in terms of firm-level corporate governance.

V. Conclusions and Caveats

In this paper we utilize a new data set from AllianceBernstein that has firm-level and country-level corporate governance ratings on a panel basis. Specifically, we have monthly firm-level and country-level corporate governance ratings from AllianceBernstein for 22 emerging market countries for almost five years. In these data, each firm and country within the AllianceBernstein emerging markets universe receives a corporate governance rating that ranges from A+ to D, although the lowest actual rating is C-.

Part of our study, namely, the results reported in Tables 2 and 3, is subject to endogeneity as we cannot determine if corporate governance causes these effects or if the effects endogenously cause there to be different levels of corporate governance. Also, our investigation as to what aspects of country-level governance relate to better firm-level governance is subject to endogeneity as we cannot determine whether better country governance necessarily influences better firm-level governance or vice versa. However, these caveats not withstanding, we find many interesting results regarding firm-level and country-level corporate governance that have implications for corporations, investors and policymakers.

First, using a fixed-effects pooled cross-sectional time series analysis that uses many controls, we find that better firm-level and country-level governance are positively and significantly related to better market valuations, i.e., PB and PE ratios. These results are generally similar to what has been found in the previous literature.

Second, while we find better governance is related to better market valuations, we find that the relation is non-linear. Specifically we find that the firms with the best firm-level corporate governance ratings (A rated) have significantly higher PB and PE ratios than firms with intermediate ratings (B rated) and firms with low ratings (C rated). However, we generally find that there is no significant difference between B rated and C rated firms in terms of market valuation. We also find this same non-linear relation when examining country-level governance. Firms in highly rated countries (A) have higher market valuations than firms in intermediate (B) and low-rated (C) countries. Yet, there is no significant difference between the market valuations of firms in B rated countries and those in C rated countries. These results suggest that there is a significant premium is paid for top firm-level and country-level governance but not for intermediate levels of governance.

Third, we find our result that top firm-level governance is linked with higher valuation is largely driven by the impact of firm-level governance in B countries (countries with intermediate level of country governance). Specifically, we find improvements firm-level governance has relatively little impact on market valuation when country governance is strong (A countries), a strong positive and significant impact when country governance is in the intermediate range (B countries), and a negative and significant impact when country governance is weak (C countries). These results suggest that firm-level governance is valued by investors when the costs from implementing better governance are low and the benefits high but actually seen as decreasing value when the costs for better governance are high and the benefits low. They also clearly show the dominance that country governance has over firm-level governance in terms of market valuation.

Fourth, using the same fixed-effects approach, we find that ROE is also positively and significantly related to better firm-level corporate governance. These results are similar to Klapper and Love (2004) who find the same result with return on assets. However, interestingly, we find that ROE is negatively and significantly related with country-level governance. We argue that the reason for the higher return to equity in firms from lower rated countries is that these countries have recently had higher rates of real economic growth than the A and B rated countries, and hence will have higher ROE after firm-level governance and other factors are controlled.

Fifth, consistent with LLSV (2000), we find that firms located in countries with high governance standards pay out significantly higher dividends. This result is consistent with an agency theory model in which shareholders perceive a great risk of expropriation by insiders. However, if the country-level governance effect is controlled, firm-level corporate governance is actually somewhat negatively related to dividend payout. Specifically, we find that firms with C (the lowest) firm-level corporate governance ratings have significantly higher dividend payouts than the firms with A or B ratings. These results suggest that after controlling for the level of country governance, investors demand higher dividend payouts from firms that have weak firm-level governance as they are unsure of the firm's ability to efficiently reinvest earnings.

Sixth, we find that if a firm's corporate governance rating improves (worsens) there is some evidence that the firm's PB, ROE and capital efficiency improve (decline) over the period immediately before and after the change in governance. These tests using the change in the firm-level corporate governance ratings have allowed us to overcome, to some extent, the issue of whether better governance causes better valuations, or whether firms with better valuations endogenously choose better governance, a problem from which our results in Tables 2-3 also suffer. To our knowledge, this type of test on the impact of corporate governance at the firm level has not been examined before in the emerging markets literature.

Seventh, in our examination of the aspects of country governance that influence firm level governance, we find that the governance stance on corporate governance and equity culture, and the political, social, and environmental climate of the country, are both positively and significantly related to firm-level governance. That is, in countries that have high scores on these two measures, we see significantly higher ratings for firm-level corporate governance. The two components encompass such issues as the government's stance on privatization, how transparent the government's privatization efforts have been, whether the government discriminates foreign investors from domestic investors, how much of a domestic retail base exists for the stock exchange, how important the stock exchange is to the overall economy, and the country's stand on human rights and environmental policy. Although causation is difficult to

determine, these results suggest that if governments improve their stance in these issues, firm-level corporate governance will improve.

Eighth, our out-of-sample analysis finds that firms in countries with high country-level governance ratings predict significantly better future risk-adjusted performance. This was the case before and after controlling for firm-level governance. On the other hand, we find that firm-level corporate governance ratings themselves are somewhat weak predictors of future firm performance. Hence, our results suggest that for investors the first emphasis should be put on country governance and then firm-level governance in the search for better future performance.

References

Black, Bernard (2001), "The Corporate Governance Behavior of Market Value of Russian Firms," *Emerging Markets Review*, 2, 89-108.

Black, Bernard, Hasung Jang, and Woochan Kim (2006a), "Predicting Firms' Corporate Governance Choices: Evidence from Korea," *Journal of Corporate Finance*, forthcoming.

Black, Bernard, Hasung Jang, and Woochan Kim (2006b), "Does Corporate Governance Affect Firms' Market Values? Evidence from Korea," *Journal of Law, Economics and Organization*, forthcoming.

Black, Bernard, Inessa Love, and Andrei Rachinsky (2007), "Corporate Governance Indicies and Firms' Market Values: Time Series Evidence from Russia," *Emerging Markets Review*, forthcoming.

Black, Bernard, Woochan Kim, Hasung Jan and Kyung-Suh Park (2006), "Does Corporate Governance Predict Firms' Market Values: Time Series Evidence from Korea," working paper.

Bruno, Valentina G. and Stijn Claessens, (2006), "Corporate Governance and Regulation: Can There Be Too Much of Good Thing?", European Corporate Governance Institute Working Paper No. 142.

Bukart, M, D. Grmb and F. Panunzi, (1997), "Large Shareholders, Monitoring, and the Value of the Firm", *Quarterly Journal of Economics*, 112, 693-728.

Claessens, S. S. Djankov, and T. Nenvova (2001), "Corporate Growth and Risk Around the World," in Rueven Glick, Ramon Moreno and Mark Spiegel, editors, Financial Crises in Emerging Markets, Cambridge University Press.

Claessens, Stijn, (2006), "Corporate Governance and Development", *The World Bank Research Observer*, 91-122.

Core, John, Wayne Guay, and Tjomme Rusticus (2005), "Does Weak Governance Cause Weak Stock Returns? An Examination of Firm Operating Performance and Investors' Expectations," working paper.

Denis, Diane and John McConnell, 2003, "International Corporate Governance," *Journal of Financial and Quantitative Analysis*, 38, 1-36.

Doidge, Craig, Andrew Karolyi, and Rene Stulz (2007), "Why Do Countries Matter So Much for Corporate Governance?" *Journal of Financial Economics*, forthcoming.

Durnev, Artyom, and E. Han Kim (2005), "To Steal or Not to Steal: Firm Attributes, Legal Environment, and Valuation," *Journal of Finance*, 60, 1461-1493.

Dyck, A. and L. Zingales (2004), "The Private Benefits of Control: An International Comparison," *Journal of Finance*, 59, 537-600.

Gugler, Klaus, Dennis Mueller and B. Burcin Yurtoglu (2004), "Corporate Governance and Returns on Investment," *Journal of Law and Economics*, 589-633.

Klapper, Leora, and Inessa Love (2004), "Corporate Governance, Investor Protection and Performance in Emerging Markets," *Journal of Corporate Finance*, 10, 287-322.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny (1998a), "Law and Finance," *Journal of Political Economy*, 106, 113-1155.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny (1998b), "Corporate Ownership Around the World," *Journal of Finance*, 54, 471-517.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny (2000), "Agency Problems and Dividend Policies Around the World," *Journal of Finance*, 55, 1-33.

La Porta, Rafeal, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny (2002), "Investor Protection and Corporate Valuation," *Journal of Finance*, 57, 1147-1170.

Mitton, Todd, (2004), "Corporate Governance and Dividend Policy in Emerging Markets," *Emerging Markets Review*, 5, 409-426.

Pistor, K., M. Raiser, and S. Gelfer (2000), "Law and Finance in Transition Economies," *The Economics of Transition*, 8, 325-368.

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

Appendix I: Algorithm used to identify matching firms for out-of-sample tests.

Matches are identified as follows:

1. Eliminate all firms that do not survive entire subsample period.
2. Identify all firms that share the same firm rating (any rating within the same letter is acceptable) on the last month for which data is available.
    a. If only one firm is identified that satisfies this filter, eliminate all other firms and go to the final step.
    b. If zero firms are identified, don't eliminate any additional firms, and go to the next step.
    c. If more than one firm survives this filter, eliminate all other firms and go to the next step.
3. Identify all firms that share the same country rating (any rating within the same letter is acceptable) on the last month for which data is available.
    a. If only one firm is identified that satisfies this filter, eliminate all other firms and go to the final step.
    b. If zero firms are identified, don't eliminate any additional firms, and go to the next step.
    c. If more than one firm survives this filter, eliminate all other firms and go to the next step.
4. Identify all firms that survive the previous step for which Capex/Sales is within 25 and 200 percent of the non-surviving firm on the last month for which data is available. Then,
    a. If only one firm is identified that satisfies this filter, eliminate all other firms and go to the final step.
    b. If zero firms are identified, don't eliminate any additional firms, and go to the next step.
    c. If more than one firm survives this filter, eliminate all other firms and go to the next step.
5. Identify all firms that survive the previous step for which dividend payout is within 25 and 200 percent of the non-surviving firm on the last month for which data is available. Then,
    a. If only one firm is identified that satisfies this filter, eliminate all other firms and go to the final step.
    b. If zero firms are identified, don't eliminate any additional firms, and go to the next step.
    c. If more than one firm survives this filter, eliminate all other firms and go to the next step.
6. Identify all firms that survive the previous step for which log(assets) is within 25 and 200 percent of the non-surviving firm on the last month for which data is available. Then,
    a. If only one firm is identified that satisfies this filter, eliminate all other firms and go to the final step.
    b. If zero firms are identified, don't eliminate any additional firms, and go to the next step.
    c. If more than one firm survives this filter, eliminate all other firms and go to the next step.
7. Identify all firms that survive the previous step for which Capex/Sales is within 75 and 125 percent of the non-surviving firm on the last month for which data is available. Then,

   a. If only one firm is identified that satisfies this filter, eliminate all other firms and go to the final step.
   b. If zero firms are identified, don't eliminate any additional firms, and go to the next step.
   c. If more than one firm survives this filter, eliminate all other firms and go to the next step.
8. Identify all firms that survive the previous step for which dividend payout is within 75 and 125 percent of the non-surviving firm on the last month for which data is available. Then,
   a. If only one firm is identified that satisfies this filter, eliminate all other firms and go to the final step.
   b. If zero firms are identified, don't eliminate any additional firms, and go to the next step.
   c. If more than one firm survives this filter, eliminate all other firms and go to the next step.
9. Identify all firms that survive the previous step for which log(assets) is within 75 and 125 percent of the non-surviving firm on the last month for which data is available. Then,
   a. If only one firm is identified that satisfies this filter, eliminate all other firms and go to the final step.
   b. If zero firms are identified, don't eliminate any additional firms, and go to the next step.
   c. If more than one firm survives this filter, eliminate all other firms and go to the next step.
10. Of the firms that survive until this point, randomly choose 1 of the remaining firms and go to the final step.
11. Final Step: Extract the return of the identified surviving firm.

Table 1: Descriptive Statistics.

Panel 1.A: Number of observations, proportion of total observations, and country corporate governance ratings, by country.

Country	*N*	*Proportion*	*Country Rating*
Taiwan	1,961	16.13%	B
South Africa	1,754	14.43%	A
India	1,242	10.22%	B+
Korea	1,161	9.55%	B
Brazil	1,158	9.53%	C+
China	1,088	8.95%	C+
Mexico	743	6.11%	B
Russia	424	3.49%	C
Malaysia	405	3.33%	B
Turkey	397	3.27%	B
Chile	368	3.03%	A
Thailand	293	2.41%	C-
Israel	237	1.95%	A
Hungary	226	1.86%	A
Poland	204	1.68%	B
Indonesia	154	1.27%	C+
Egypt	118	0.97%	C
Argentina	77	0.63%	C
Czech Republic	65	0.53%	A
Philippines	65	0.53%	C
Venezuela	9	0.07%	C-
Peru	6	0.05%	C

Panel 1.B. Number of Observations by Firm Rating (using pluses and minuses) and Country Rating (using pluses and minuses)

Firm Rating	*Number*	*Proportion*	*Country Rating*	*Number*	*Proportion*
A+	754	6.20%	A+	0	0.00%
A	2782	22.89%	A	2,650	21.80%
A-	164	1.35%	A-	0	0.00%
B+	2626	21.60%	B+	1,242	10.22%
B	4510	37.10%	B	4,871	40.07%
B-	553	4.55%	B-	0	0.00%
C+	236	1.94%	C+	2,400	19.74%
C	448	3.69%	C	690	5.68%
C-	82	0.67%	C-	302	2.48%

Panel 1.C: Number of observations and proportion of total observations, by industry.

Industry	*N*	*Proportion*
Financials	1,945	16.00%
Information Technology	1,822	14.99%
Materials	1,636	13.46%
Telecommunications Services	1,634	13.44%
Consumer Discretionary	1,397	11.49%
Industrials	1,118	9.20%
Consumer Staples	910	7.49%
Energy	881	7.25%
Utilities	508	4.18%
Health Care	304	2.50%

Panel 1.D: Number of observations per month.

Month	*Number*	*Month*	*Number*	*Month*	*Number*	*Month*	*Number*
Nov 2001	121	Feb 2003	214	May 2004	219	Aug 2005	256
Dec 2001	130	Mar 2003	215	Jun 2004	203	Sep 2005	244
Jan 2002	129	Apr 2003	224	Jul 2004	211	Oct 2005	256
Feb 2002	137	May 2003	214	Aug 2004	215	Nov 2005	257
Mar 2002	153	Jun 2003	212	Sep 2004	220	Dec 2005	244
Apr 2002	162	Jul 2003	213	Oct 2004	223	Jan 2006	241
May 2002	175	Aug 2003	214	Nov 2004	226	Feb 2006	217
Jun 2002	186	Sep 2003	186	Dec 2004	205	Mar 2006	219
Jul 2002	194	Oct 2003	185	Jan 2005	214	Apr 2006	217
Aug 2002	198	Nov 2003	191	Feb 2005	214	May 2006	179
Sep 2002	199	Dec 2003	195	Mar 2005	225	Jun 2006	183
Oct 2002	193	Jan 2004	199	Apr 2005	248	Jul 2006	182
Nov 2002	204	Feb 2004	200	May 2005	258	Aug 2006	197
Dec 2002	205	Mar 2004	204	Jun 2005	258	Sep 2006	187
Jan 2003	214	Apr 2004	216	Jul 2005	255		

Panel 1.E: Correlations between variables.

PB is the Price to Book ratio; PE is the Price to Earnings ratio; ROE is Return on Equity; EPS Growth is Growth in Earnings Per Share; No EPS Growth Dummy is a dummy that is equal to 1 if the EPS Growth data is missing and 0 otherwise; Firm Rating 1-9 is a variable that quantifies the firm corporate governance rating, where a firm with an A+ rating receives a 9, a firm with an A rating receives an 8, etc. Firm Rating 1-3 is a variable that quantifies the firm corporate governance rating, where a firm with an A+, A or A- rating receives a 3, a firm with a B+, B or B- rating receives a 2, and a firm with a C+, C or C- rating receives a 1. Country rating 1-9 is a variable that quantifies the country governance rating, where a firm in a country with an A+ rating receives a 9, a firm in a country with an A rating receives an 8, etc. Country rating 1-3 is a variable that quantifies the country governance rating, where a firm in a country with an A+, A or A- rating receives a 3, a firm in a country with a B+, B or B- rating receives a 2, and a firm in a country with a C+, C or C- rating receives a 1.

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
PB	[1]												
PE	[2]	0.33											
ROE	[3]	0.55	-0.26										
Dividend Payout	[4]	0.06	0.10	-0.02									
log(Assets)	[5]	-0.31	-0.15	-0.14	-0.07								
(Capex/Sales)/10	[6]	-0.05	0.06	-0.10	-0.09	0.10							
EPS Growth	[7]	0.17	0.21	0.00	-0.04	-0.06	0.03						
No EPS Growth Dummy	[8]	-0.07	-0.04	-0.01	-0.03	-0.07	-0.04	-0.33					
(Debt/Equity)/100	[9]	-0.06	-0.02	-0.04	-0.06	0.41	0.05	-0.01	0.09				
Firm Rating 1-9	[10]	0.21	0.05	0.12	0.05	-0.06	-0.06	0.04	-0.06	0.05			
Firm Rating 1-3	[11]	0.22	0.08	0.12	0.07	-0.06	-0.03	0.03	-0.08	0.05	0.95		
Country Rating 1-9	[12]	0.05	0.06	0.02	0.05	-0.15	-0.15	0.02	0.00	-0.04	0.22	0.22	
Country Rating 1-3	[13]	0.03	0.06	0.01	0.06	-0.14	-0.16	0.01	0.03	-0.03	0.24	0.25	0.97

Panel 1.F: Summary statistics by country and firm corporate governance ratings.

Country Rating	*Firm Rating*	*Number*	*Avg. PB*	*Avg. PE*	*Avg. ROE*	*Avg. Dividend Payout*	*Avg. log(Assets)*	*Avg. (Capex/Sales)/ 10*	*Avg. EPS Growth*	*Avg. No EPS Growth Dummy*	*Avg. (Debt/Equity)/ 100*
All	All Firm Ratings	12,155	2.80	15.70	20.16	36.17	3.56	1.36	1.30	0.19	0.86
	A+, A, or A-	3,700	3.41	17.32	21.69	38.17	3.54	1.29	1.48	0.14	0.94
	B+, B, or B-	7,689	2.59	14.84	19.97	35.99	3.54	1.37	1.18	0.21	0.83
	C+, C, or C-	766	1.87	16.48	14.71	28.36	3.82	1.62	1.64	0.22	0.73
A+, A, or A-	All Firm Ratings	2,650	2.87	16.19	20.84	41.27	3.42	0.96	1.17	0.24	0.68
	A+, A, or A-	1,322	3.11	16.01	22.41	43.11	3.52	0.98	1.39	0.18	0.79
	B+, B, or B-	1,293	2.65	16.48	19.32	39.77	3.31	0.95	0.97	0.30	0.58
	C+, C, or C-	35	1.52	12.45	17.72	27.50	3.67	0.90	0.53	0.40	0.50
B+, B, or B-	All Firm Ratings	6,113	2.83	16.10	19.69	34.18	3.55	1.13	1.45	0.16	0.95
	A+, A, or A-	1,773	3.48	17.98	20.56	35.92	3.58	1.35	1.61	0.08	1.05
	B+, B, or B-	3,928	2.61	14.97	19.92	33.68	3.53	1.01	1.30	0.19	0.91
	C+, C, or C-	412	2.13	18.85	13.76	31.38	3.70	1.42	2.15	0.19	0.92
C+, C, or C-	All Firm Ratings	3,392	2.69	14.57	20.48	35.79	3.68	2.03	1.14	0.20	0.83
	A+, A, or A-	605	3.85	18.26	23.41	33.97	3.46	1.67	1.30	0.23	0.93
	B+, B, or B-	2,468	2.54	13.76	20.39	37.69	3.70	2.13	1.11	0.19	0.84
	C+, C, or C-	319	1.57	13.86	15.60	24.54	3.99	1.96	1.09	0.23	0.52

Table 2: The relation between firm corporate governance ratings and valuation, ROE, and dividend payout. Regression estimation is performed using a fixed effects pooled cross-section time series approach. When Price to Book (PB) and Price to Earnings (PE) are the dependent variables, all observations from each of the 59 months in the November 2001 – September 2006 sample period are pooled. Since the Return on Equity (ROE) data is annual, when ROE is the dependent variable we only pool each December observation. Since dividend payout data is quarterly, when dividend payout is the dependent variable we only pool the March, June, September and December observations. In all the regressions, we use firms with A+, A, or A- ratings as the reference group. Hence, the regressions test for the difference between A rated firms (A+, A or A-) and B rated firms (B+, B, or B-), and A rated firms (A+, A, or A-) and C rated firms (C+, C or C-). The ***, **, * indicate that this difference is significant at the one, five and ten percent levels, respectively. The t-statistics are reported below each coefficient. We also independently test whether there is a significant difference between the B rated firms (B+, B or B-) and C rated firms (C+, C and C-). The ###, ##, # indicate that the difference between B rated firms and C rated firms is significant at the one, five and ten percent levels respectively. In each regression we use size of the firm (log (assets)), debt level of the firm (Debt to equity/100), capital intensity of the firm ((Capex/Sales)/10), Long-term growth in earnings per share (EPS Growth), a dummy if the EPS growth data is missing (No EPS Growth Dummy), and a variable that proxies the country corporate governance rating (Country rating 1-9) (see Table 1.E for an explanation) as control variables. Each of the estimations includes, but we do not present, a fixed effects model for the date of the observation using date-specific dummies, excluding one reference. Each of the estimations further includes, but we do not present, a fixed effects model for firm identification using firm-specific dummies. Because country ratings are invariant over the sample period, the country rating 1-9 variable is a linear combination of the firm-specific dummies. We therefore exclude as references one firm dummy from an A rated country, one firm dummy from a B rated country, and one firm dummy from a C rated country.

	Independent Variables										
Dependent Variable	*Constant*	*Firm rating B+, B, or B-*	*Firm rating C+, C, or C-*	*log(Assets)*	*(Debt/ Equity)/100*	*(Capex/ Sales) /10*	*EPS Growth*	*No EPS Growth Dummy*	*Country Rating 1-9*	*N*	*Adj-R2*
PB	12.26***	-0.10**	-0.15**	-3.27***	0.30***	-0.02***	0.04***	0.06*	0.30***	11813	0.81
	(25.21)	(-2.56)	(-2.08)	(-26.52)	(24.12)	(-3.69)	(6.61)	(1.90)	(7.33)		
PE	-14.63***	-0.99***##	0.16	3.11***	-0.16***	-0.01	0.60***	0.62**	4.94***	11764	0.48
	(-3.53)	(-2.88)	(0.24)	(3.16)	(-3.63)	(-0.22)	(11.38)	(2.02)	(11.48)		
ROE	63.89***	-3.02**	-2.06	-9.44**	-0.99	-0.24	0.57	-2.47*	-2.47*	952	0.58
	(4.06)	(-2.36)	(-0.86)	(-2.35)	(-1.23)	(-1.00)	(1.39)	(-1.83)	(-1.76)		
Dividend Payout	32.15**	0.23###	6.20***	4.73	-0.04	-0.08	-0.46***	-3.06***	2.17	3745	0.66
	(2.09)	(0.21)	(2.93)	(1.30)	(-0.18)	(-0.68)	(-2.74)	(-2.98)	(1.64)		

Table 3: The relation between country corporate governance ratings and valuation, ROE, and dividend payout. Regression estimation is performed using a fixed effects pooled cross-section time series approach. When Price to Book (PB) and Price to Earnings (PE) are the dependent variables, all observations from each of the 59 months in the November 2001 – September 2006 sample period are pooled. Since the Return on Equity (ROE) data is annual, when ROE is the dependent variable we only pool each December observation. Since dividend payout data is quarterly, when dividend payout is the dependent variable we only pool the March, June, September and December observations. In all the regressions, we use countries with A+, A, or A- ratings as the reference group. Hence, the regressions test for the difference between firms in A rated countries (A+, A or A-) and firms in B rated countries (B+, B, or B-), and firms in A rated countries (A+, A, or A-) and firms in C rated countries (C+, C or C-). The ***, **, * indicate that this difference is significant at the one, five and ten percent levels, respectively. The t-statistics are reported below each coefficient. We also independently test whether there is a significant difference between the firms in B rated countries (B+, B or B-) and firms in C rated countries (C+, C and C-). The ###, ##, # indicate that the difference between firms in B rated countries and firms in C rated countries is significant at the one, five and ten percent levels respectively. In each regression we use size of the firm (log (assets)), debt level of the firm (Debt to equity/100), capital intensity of the firm ((Capex/Sales)/10), Long-term growth in earnings per share (EPS Growth), a dummy if the EPS growth data is missing (No EPS Growth Dummy), and a variable that proxies the country corporate governance rating (Country rating 1-9) (see Table 1.E for definition) as control variables. Each of the estimations includes, but we do not present, a fixed effects model for the date of the observation using date-specific dummies, excluding one reference. Each of the estimations further includes, but we do not present, a fixed effects model for firm identification using firm-specific dummies.

	Independent Variables										
Dependent Variable	*Constant*	*Country rating B+, B, or B-*	*Country rating C+, C, or C-*	*log(Assets)*	*(Debt/ Equity)/100*	*(Capex/ Sales) /10*	*EPS Growth*	*No EPS Growth Dummy*	*Firm Rating 1-9*	*N*	*Adj-R2*
PB	14.50***	-1.31***	-1.56***	-3.25***	0.30***	-0.02***	0.04***	0.06*	0.04***	11813	0.81
	(34.97)	(-5.99)	(-7.52)	(-26.35)	(24.26)	(-3.81)	(6.68)	(1.87)	(3.72)		
PE	28.62***	-27.46***	-24.44***	3.35***	-0.15***	-0.02	0.61***	0.57*	-0.09	11764	0.48
	(8.10)	(-12.62)	(-11.39)	(3.40)	(-3.51)	(-0.61)	(11.56)	(1.85)	(-0.98)		
ROE	33.01**	19.13***	12.22*	-9.39**	-1.06	-0.21	0.60	-2.37*	0.88***	952	0.58
	(2.46)	(2.79)	(1.75)	(-2.35)	(-1.32)	(-0.85)	(1.47)	(-1.76)	(2.58)		
Dividend Payout	56.12***	-15.52**	-10.20	4.71	-0.03	-0.10	-0.44***	-3.02***	-0.43	3745	0.66
	(4.21)	(-2.37)	(-1.54)	(1.30)	(-0.13)	(-0.84)	(-2.63)	(-2.95)	(-1.44)		

Table 4: The relation between firm corporate governance ratings and valuation, ROE, and dividend payout by country group. The following regression examines the same model as table 2 but separates the sample into three groups: firms in A countries; firms in B countries (B+, B) and firms in C countries (C+, C or C-). We include a country rating variable to control for pluses and minuses with the country range. For A countries there were no A+ or A- countries, so the country rating variable is not used. For B countries only two type of countries exist (B+ and B), for C countries all three grades (C+, C and C-) existed. Panel A provides the results for firms in A countries, panel B provides the results for firms in B countries and panel C provides the results for firms in C countries.

Panel A: A-rated countries

	Independent Variables										
Dependent Variable	*Constant*	*Firm rating B+, B, or B-*	*Firm rating C+, C, or C-*	*log(Assets)*	*(Debt/ Equity)/100*	*(Capex/ Sales) /10*	*EPS Growth*	*No EPS Growth Dummy*	*A Country Rating 1-3*	*N*	*Adj-R2*
PB	7.24***	-0.01	0.55	-0.99***	0.63***	-0.53***	0.17***	0.16**	NA	2600	0.78
	(8.11)	(-0.13)	(1.49)	(-3.43)	(10.44)	(-8.82)	(9.35)	(2.25)			
PE	6.49	-1.20*#	4.52	10.41***	-0.44***	-0.53	1.13***	0.98	NA	2502	0.46
	(0.68)	(-1.81)	(1.33)	(3.40)	(-4.67)	(-0.82)	(5.68)	(1.35)			
ROE	66.98*	-5.03**###	48.96***	-16.72	-2.26	-6.69**	0.88	-1.98	NA	210	0.54
	(1.81)	(-2.19)	(3.24)	(-1.39)	(-0.83)	(-2.44)	(0.63)	(-0.59)			
Dividend Payout	61.26*	-0.57	-5.33	2.18	-0.08	-2.84	1.49*	-1.71	NA	781	0.63
	(1.66)	(-0.25)	(-0.34)	(0.20)	(-0.24)	(-1.29)	(1.75)	(-0.65)			

Panel B: B-rated countries (includes B+ and B rated countries)

	Independent Variables										
Dependent Variable	*Constant*	*Firm rating B+, B, or B-*	*Firm rating C+, C, or C-*	*log(Assets)*	*(Debt/ Equity)/100*	*(Capex/ Sales) /10*	*EPS Growth*	*No EPS Growth Dummy*	*B Country Rating 1-3*	*N*	*Adj-R2*
PB	9.17***	-0.30***	-0.42***	-2.93***	0.22***	-0.22***	0.03***	-0.14***	2.14***	5639	0.83
	(5.65)	(-6.03)	(-4.76)	(-15.33)	(15.01)	(-11.04)	(4.74)	(-2.71)	(3.77)		
PE	-9.49	-1.13**	-0.68	-0.51	0.16	-1.64***	0.52***	-0.08	13.41***	5614	0.50
	(-0.65)	(-2.34)	(-0.81)	(-0.31)	(1.40)	(-7.73)	(8.72)	(-0.16)	(2.60)		
ROE	51.10***	-2.22	-5.52**	-1.98	-1.04	-0.75	1.03**	-4.79**	-7.72	446	0.65
	(2.87)	(-1.41)	(-1.99)	(-0.31)	(-0.92)	(-1.22)	(2.24)	(-2.57)	(-1.02)		
Dividend Payout	47.55	0.77###	10.57***	-4.38	0.25	-0.05	-0.55***	0.10	9.05	1848	0.71
	(1.15)	(0.57)	(4.34)	(-0.91)	(0.51)	(-0.08)	(-3.40)	(0.07)	(0.66)		

Panel C: C-rated countries (includes C+, C and C- rated countries)

	Independent Variables										
Dependent Variable	*Constant*	*Firm rating B+, B, or B-*	*Firm rating C+, C, or C-*	*log(Assets)*	*(Debt/ Equity)/100*	*(Capex/ Sales) /10*	*EPS Growth*	*No EPS Growth Dummy*	*C Country Rating 1-3*	*N*	*Adj-R2*
PB	12.75***	0.42***	0.33**	-3.39***	0.43***	-0.00	-0.02	0.12**	0.32***	3574	0.81
	(15.95)	(3.95)	(2.18)	(-16.56)	(18.89)	(-0.89)	(-1.04)	(2.02)	(3.29)		
PE	5.76	1.70**#	3.32***	5.11***	-0.10*	0.04	0.61***	0.81*	-3.71***	3648	0.50
	(1.10)	(1.97)	(2.69)	(4.00)	(-1.83)	(1.08)	(4.91)	(1.65)	(-4.35)		
ROE	18.70	0.12	6.01	-5.49	-0.64	0.03	-1.79**	-2.06	8.55***	296	0.62
	(0.82)	(0.03)	(1.08)	(-0.96)	(-0.54)	(0.10)	(-2.33)	(-0.87)	(2.77)		
Dividend Payout	63.92**	5.57*	6.24	6.55	-1.04	-0.03	-0.21	-5.00**	-11.19**	1116	0.60
	(2.26)	(1.66)	(1.33)	(1.01)	(-1.35)	(-0.26)	(-0.44)	(-2.53)	(-2.34)		

Table 5: Tests of the impact of a firm corporate governance rating change on PE, PB, ROE, and Dividend Payout. OLS regression estimation is performed that uses as the dependent variable the change in PB, PE, ROE, and Dividend Payout over a period before and after a firm's rating changed. The before/after windows range from 12 months, 6 months, 3 months, and 1 month pre and post the ratings change. For example, the 12 month Δ PB is the firm's price to book 12 months *after* the month in which the change in the firm's rating took place minus the firm's price to book 12 months *before* the month in which the change in the firm's rating took place. The independent variables include a firm rating change increment variable which proxies the degree of the firm rating change. For each quarter grade increase (decrease) the firm rating change increment variable increases (decreases) by 1. For example, a firm that sees its corporate governance rating increase from a B to B+ receives a value of 1. A firm that sees its corporate governance rating decrease from B to C receives a value of -3. The largest increase (decrease) in the rating grade experienced by any one firm was 6 (-6). Other independent variables include the country rating 1-9 variable, the average monthly country index return over the entire pre/post window, the post minus the pre change in Debt to Equity/100, (Capex/Sales)/10, log (assets), EPS Growth, and a dummy if the observation did not have EPS Growth data. We also include dummies for industry (using the same industries listed in Table 1.B) which are not reported. The t-statistics are reported below each coefficient. ***, **, * indicate one, five and ten percent levels of significance, respectively.

		Independent Variables										
Before/ After window	*Dependent Variable*	*Constant*	*Firm rating change increments*	*Country Rating 1-9*	*Avg. Country Return*	*Δ Debt/Equity)/ 100*	*Δ (Capex/Sales) /10*	*Δ log(Assets)*	*Δ EPS Growth*	*No EPS Growth Dummy*	*N*	*Adj-R2*
12 months pre/post	Δ PB	0.50	0.03	0.07	0.77***	0.22***	-0.02	-2.83**	0.02	0.63	148	0.25
		(0.56)	(0.44)	(0.80)	(4.94)	(2.86)	(-0.19)	(-2.51)	(1.17)	(1.64)		
	Δ PE	-13.33**	0.11	1.42**	2.44**	-0.64	0.16	-6.67	0.23**	2.65	142	0.07
		(-2.24)	(0.22)	(2.34)	(2.40)	(-1.28)	(0.20)	(-0.97)	(2.24)	(1.05)		
	Δ ROE	6.77	1.22**	-0.40	1.67	-7.89***	-1.00	0.98	0.21*	9.03***	145	0.14
		(0.96)	(2.06)	(-0.55)	(1.35)	(-2.79)	(-0.99)	(0.10)	(1.67)	(2.89)		
	Δ Dividend Payout	-1.02	-0.06	0.70	6.04***	-2.76	-2.44	2.86	-0.25	-4.64	132	0.03
		(-0.08)	(-0.05)	(0.51)	(2.68)	(-0.91)	(-1.17)	(0.18)	(-0.98)	(-0.80)		
6 months pre/post	Δ PB	0.93*	0.02	-0.00	0.27***	0.20***	-0.08	-1.85*	0.02**	-0.18	259	0.17
		(1.79)	(0.51)	(-0.04)	(4.32)	(4.11)	(-0.79)	(-1.82)	(2.32)	(-0.69)		
	Δ PE	-0.29	-0.35	-0.09	0.64	-0.25	0.05	2.16	-0.01	-2.05	253	-0.00
		(-0.07)	(-0.94)	(-0.20)	(1.37)	(-0.70)	(0.05)	(0.42)	(-0.21)	(-1.05)		
	Δ ROE	5.39	0.16	-0.19	0.63	4.78***	-0.14	-5.76	0.06	0.28	254	0.04
		(1.49)	(0.45)	(-0.46)	(1.46)	(2.95)	(-0.20)	(-0.78)	(1.13)	(0.15)		
	Δ Dividend Payout	3.18	0.79	-0.19	-0.03	-0.59	-2.32	22.74*	-0.20**	-0.25	232	0.02
		(0.50)	(1.37)	(-0.26)	(-0.04)	(-0.27)	(-1.42)	(1.72)	(-2.24)	(-0.08)		
3 months pre/post	Δ PB	0.45	0.05*	-0.01	0.15***	0.15***	-0.14*	-3.78***	0.01**	-0.01	287	0.25
		(1.62)	(1.74)	(-0.18)	(6.14)	(3.35)	(-1.84)	(-5.71)	(2.52)	(-0.06)		
	Δ PE	-2.58	0.17	0.48	0.40*	-0.88**	-2.61**	5.91	0.13***	-0.62	285	0.04
		(-0.95)	(0.59)	(1.40)	(1.72)	(-2.00)	(-2.55)	(0.91)	(2.62)	(-0.43)		
	Δ ROE	1.83	0.32	-0.15	0.26	4.69***	1.55**	-1.25	-0.02	-1.60	286	0.07
		(0.83)	(1.38)	(-0.56)	(1.37)	(3.23)	(2.48)	(-0.22)	(-0.43)	(-1.27)		
	Δ Dividend Payout	4.73	-0.11	-0.24	-0.14	1.47	-2.48	7.58	-0.05	1.53	259	-0.02
		(1.07)	(-0.25)	(-0.41)	(-0.37)	(0.68)	(-1.41)	(0.67)	(-0.62)	(0.60)		
1 month pre/post	Δ PB	0.31	0.04*	-0.01	0.06***	0.20***	-0.14**	-1.90***	0.01*	-0.00	324	0.18
		(1.59)	(1.75)	(-0.35)	(4.89)	(5.55)	(-1.97)	(-2.91)	(1.96)	(-0.02)		
	Δ PE	0.67	-0.16	-0.00	0.17	-1.28***	1.45	7.57	0.09	1.02	324	-0.00
		(0.29)	(-0.62)	(-0.01)	(1.26)	(-2.85)	(1.07)	(0.96)	(1.20)	(0.76)		
	Δ ROE	1.71	-0.08	-0.26	0.03	4.52***	2.31***	10.59*	0.00	-1.52*	322	0.12
		(1.22)	(-0.56)	(-1.46)	(0.43)	(4.05)	(4.24)	(1.95)	(0.01)	(-1.83)		
	Δ Dividend Payout	3.54	-0.43	-0.59	-0.21	0.69	0.74	-2.91	-0.04	-1.18	300	-0.01
		(1.06)	(-1.18)	(-1.35)	(-1.08)	(0.30)	(0.31)	(-0.24)	(-0.32)	(-0.58)		

Table 6: Tests of the impact of a firm corporate governance rating change on Capex/Sales. This table uses the same model described in Table 5 except that we use the change in capital to sales as the dependent variable. The ***, **, * indicate that this difference is significant at the one, five and ten percent levels, respectively. The t-statistics are reported below each coefficient.

		Independent Variables									
Before/ After window	*Dependent Variable*	*Constant*	*Firm rating change increments*	*Country Rating 1-9*	*Avg. Country Return*	*Δ Debt/Equity)/ 100*	*Δ log(Assets)*	*Δ EPS Growth*	*No EPS Growth Dummy*	*N*	*Adj-R2*
12 months pre/post	Δ(Capex/ Sales)/10	0.21 (0.49)	-0.06* (-1.68)	-0.08* (-1.77)	-0.02 (-0.32)	-0.00 (-0.10)	1.63*** (3.33)	-0.01* (-1.72)	0.20 (1.12)	155	0.10
6 months pre/post	Δ(Capex/ Sales)/10	0.54** (2.34)	0.00 (0.05)	-0.07** (-2.44)	-0.05* (-1.71)	0.06*** (2.78)	0.21 (0.70)	0.00 (0.02)	0.07 (0.65)	270	0.03
3 months pre/post	Δ(Capex/ Sales)/10	0.04 (0.30)	0.01 (0.42)	-0.01 (-0.71)	-0.01 (-0.81)	0.06*** (2.85)	0.57* (1.82)	0.00 (1.16)	-0.02 (-0.22)	303	0.01
1 month pre/post	Δ(Capex/ Sales)/10	-0.06 (-0.65)	-0.01 (-0.70)	-0.00 (-0.05)	-0.00 (-0.20)	0.07*** (3.97)	0.61* (1.89)	-0.01*** (-3.10)	-0.01 (-0.21)	340	0.05

Table 7: Tests of the relationship between market valuation and changes in firm-level corporate governance ratings in which the sample is dividend into ratings changes are between B to C minus, and all others. This table uses the same model described in Table 5 except that there are two sub-samples. Panel A use a sub-sample that consists of firm-level ratings changes that begin and end within the range of B to C minus. Hence, for example, a firm that saw its rating improve from C+ to B, or a firm that saw its rating fall from a B- to C- would be included in this sample. Panel B uses all other ratings change observations. The ***, **, * indicate that this difference is significant at the one, five and ten percent levels, respectively. The t-statistics are reported below each coefficient.

Panel A: Changes in Ratings in which the firm-level governance rating begins and ends within the range of B through C minus

		Independent Variables										
Before/ After window	*Dependent Variable*	*Constant*	*Firm rating change increments*	*Country Rating 1-9*	*Avg. Country Return*	*Δ Debt/Equity)/ 100*	*Δ (Capex/Sales) /10*	*Δ log(Assets)*	*Δ EPS Growth*	*No EPS Growth Dummy*	*N*	*Adj-R2*
12 months pre/post	Δ PB	-4.23	-0.65**	0.35	0.58	2.86***	0.04	-5.08**	0.00	-0.74	31	0.39
		(-1.62)	(-2.52)	(1.74)	(1.34)	(3.25)	(0.18)	(-2.39)	(0.07)	(-0.78)		
	Δ PE	-41.56*	-4.07*	2.38	6.15	0.72	2.47	-0.85	-0.09	-2.78	32	0.16
		(-1.76)	(-1.73)	(1.33)	(1.56)	(0.09)	(1.23)	(-0.05)	(-0.30)	(-0.32)		
6 months pre/post	Δ PB	-0.64	-0.04	0.15	0.12	0.49**	-0.05	-3.82**	-0.02	-0.81	56	0.15
		(-0.71)	(-0.42)	(1.25)	(0.92)	(2.47)	(-0.35)	(-2.29)	(-1.10)	(-1.51)		
	Δ PE	-3.46	0.11	0.48	0.97	0.67	-0.08	-1.61	-0.02	-3.83	53	-0.03
		(-0.51)	(0.16)	(0.53)	(1.14)	(0.46)	(-0.05)	(-0.33)	(-0.13)	(-1.20)		
3 months pre/post	Δ PB	0.04	0.04	-0.03	0.11***	0.50***	-0.27*	-6.68***	0.01	0.29	66	0.49
		(0.12)	(0.84)	(-0.43)	(2.93)	(3.73)	(-1.96)	(-6.28)	(1.12)	(1.07)		
	Δ PE	-2.98	0.45	0.09	0.76	-1.08	-2.65	-20.79	-0.03	0.98	68	-0.02
		(-0.48)	(0.57)	(0.10)	(1.30)	(-0.55)	(-1.24)	(-1.61)	(-0.16)	(0.27)		
1 month pre/post	Δ PB	0.09	-0.04	-0.01	0.08***	0.64***	-0.27	-4.66***	0.00	0.22	74	0.44
		(0.31)	(-0.92)	(-0.13)	(4.48)	(2.80)	(-0.83)	(-4.83)	(0.14)	(1.07)		
	Δ PE	1.62	-0.70**	-0.25	0.37***	-1.82	-1.20	5.08	0.09	-3.69**	78	0.19
		(0.65)	(-2.19)	(-0.61)	(2.79)	(-0.90)	(-0.41)	(0.66)	(1.38)	(-2.26)		

Panel B: All other observations in which there are changes in firm-level governance

		Independent Variables										
Before/ After window	*Dependent Variable*	*Constant*	*Firm rating change increments*	*Country Rating 1-9*	*Avg. Country Return*	*Δ Debt/Equity)/ 100*	*Δ (Capex/Sales) /10*	*Δ log(Assets)*	*Δ EPS Growth*	*No EPS Growth Dummy*	*N*	*Adj-R2*
12 months pre/post	Δ PB	0.59	0.11	0.02	0.78***	0.21***	-0.02	-1.80	0.02	0.94**	117	0.29
		(0.59)	(1.27)	(0.17)	(4.58)	(2.63)	(-0.10)	(-1.30)	(1.02)	(2.24)		
	Δ PE	-9.92	0.02	1.02	1.33	-0.70	-2.05**	-3.54	0.24**	4.38*	110	0.12
		(-1.66)	(0.04)	(1.58)	(1.36)	(-1.56)	(-2.05)	(-0.47)	(2.14)	(1.70)		
6 months pre/post	Δ PB	1.53**	0.02	-0.07	0.28***	0.19***	-0.16	-0.37	0.03***	0.17	203	0.22
		(2.46)	(0.43)	(-1.03)	(3.96)	(3.56)	(-1.06)	(-0.26)	(3.03)	(0.52)		
	Δ PE	1.43	-0.52	-0.43	0.32	-0.22	-0.82	10.70	-0.01	-1.73	200	-0.02
		(0.28)	(-1.16)	(-0.74)	(0.55)	(-0.57)	(-0.53)	(0.98)	(-0.10)	(-0.67)		
3 months pre/post	Δ PB	0.66*	0.06*	-0.01	0.15***	0.15***	-0.15	-3.28***	0.01**	0.00	221	0.21
		(1.83)	(1.74)	(-0.29)	(5.06)	(2.76)	(-1.57)	(-3.89)	(2.39)	(0.01)		
	Δ PE	-2.88	0.25	0.54	0.23	-0.73	-1.69	20.34**	0.15***	-0.44	217	0.05
		(-0.90)	(0.79)	(1.39)	(0.86)	(-1.58)	(-1.19)	(2.51)	(2.80)	(-0.25)		
1 month pre/post	Δ PB	0.42*	0.06**	-0.01	0.04***	0.19***	-0.15*	-0.93	0.02**	-0.11	250	0.16
		(1.72)	(2.32)	(-0.39)	(2.84)	(4.64)	(-1.89)	(-1.05)	(2.19)	(-0.76)		
	Δ PE	1.00	0.00	0.01	0.12	-1.02**	3.91**	17.59	0.11	1.72	246	-0.00
		(0.32)	(0.01)	(0.03)	(0.69)	(-1.98)	(2.00)	(1.58)	(1.00)	(0.99)		

Table 8: Tests of the relation between country characteristics and firm rating. A fixed effects pooled cross-sectional time series regression is performed with dependent variables that quantify the firm-level corporate governance rating. Specifically, Firm Rating 1-9 is a variable where a firm with an A+ rating receives a 9, a firm with an A rating receives an 8, etc. Firm Rating 1-3 is a variable where a firm with an A+, A or A- rating receives a 3, a firm with a B+, B or B- rating receives a 2, and a firm with a C+, C or C-rating receives a 1. The independent variables are the scores for the five components that compose the country rating. Each of the estimation includes, but we do not present, a fixed effects model for firm identification using firm-specific dummies, excluding one reference. The t-statistics are reported below each coefficient. ***, **, * indicate one, five and ten percent levels of significance, respectively.

	Independent Variables							
Dependent Variable	*Constant*	*Legal and Regulatory Infrastructure*	*Government Stance on Corporate Governance and Equity Culture*	*Macroeconomic and Political Stability*	*Accounting and Auditing Standards*	*Political, Social, and Environmental Climate*	*N*	*Adj-R2*
Firm Rating 1-9	-9.05 (-1.36)	0.14 (0.98)	0.25*** (6.07)	-0.38* (-1.88)	1.92 (1.58)	0.60*** (2.98)	14961	0.75
Firm Rating 1-3	0.39 (0.18)	-0.04 (-0.86)	0.07*** (5.62)	-0.09 (-1.41)	0.15 (0.38)	0.19*** (2.91)	14961	0.75

Table 9: The out-of-sample performance of corporate governance ratings, adjusted for survivorship bias. Regression estimation is performed to estimate the out-of-sample performance of the firm-level and country-level corporate governance ratings. Two three-year out-of-sample periods were examined: 2002-2004 and 2003-2005. For each of these two samples all the firms that received a corporate governance rating were surveyed at the beginning of the sample (December 31, 2001 for the 2002-2004 sample and December 31, 2002 for the 2003-2005 sample). These firms were followed for the next three years, and the monthly returns for each firm were collected during the out-of-sample periods. To prevent survivorship bias, firms that dropped out before the end of the sample period were not excluded. Instead, the returns of the firms that dropped out of the sample were treated as follows. First, we use the actual monthly returns of the firm until it drops out of the sample. Once it drops out, the monthly returns then become the returns of the closest matching firm that survived the entire out-of-sample period. To find the closest matching firm we used an algorithm that is described in Appendix I. Panel 9.A. uses firm-level rating dummies as the only independent variables. Panel 9.B. uses country-level rating dummies as the only independent variables. Panel 9.C. replicates Panel 9.A. but also uses country rating 1-9 as an additional control variable. Panel 9.D. replicates Panel 9.B. but also uses firm rating 1-9 as an additional control variable. In Panels 9.A. and 9.C. we use A rated firms (A+, A, or A-) as the reference group. Hence, the regressions test for the difference between A rated firms (A+, A or A-) and B rated firms (B+, B, or B-), and the difference between A rated firms (A+, A, or A-) and C rated firms(C+, C or C-). In Panels 9.B. and 9.D. we use firms from A rated countries (A+, A or A-) as the reference group. Hence, the regressions test for the difference between firms in A rated countries (A+, A or A-) and firms in B rated countries (B+, B, or B-), and the difference between firms in A rated countries (A+, A, or A-) and firms in C rated countries (C+, C or C-). The ***, **, * indicate that the difference is significant at the one, five and ten percent levels respectively. The t-statistics are reported below each coefficient. Note also that in Panels 9.A. and 9.C. we also examine if there is a significant difference between the B rated firms (B+, B or B-) and C rated firms (C+, C and C-). In Panels 9.B. and 9.D. we also examine if there is a significant difference between firms in B rated countries (B+, B or B-) and firms in C rated countries (C+, C or C-). The ###, ##, #, indicate that the difference between B firms and C firms is significant at the one, five and ten percent levels, respectively.

Panel 9.A

		Independent Variables				
Out-of-sample period	*Dependent Variable*	*Constant*	*Firm rating B+, B, or B-*	*Firm rating C+, C, or C-*	*N*	*Adj-R2*
2002-2004	Sharpe ratio	0.32*** (10.08)	-0.07** (-1.98)	-0.08 (-1.31)	178	0.01
2003-2005	Sharpe ratio	0.35*** (17.53)	-0.02 (-0.87)	-0.04 (-1.22)	279	-0.00

Panel 9.B

		Independent Variables				
Out-of-sample period	*Dependent Variable*	*Constant*	*Country rating B+, B, or B-*	*Country rating C+, C, or C-*	*N*	*Adj-R2*
2002-2004	Sharpe ratio	0.38*** (16.10)	-0.20*** (-6.02)	-0.16*** (-4.57)	178	0.18
2003-2005	Sharpe ratio	0.39*** (20.43)	-0.09*** (-3.73)	-0.06** (-2.07)	279	0.04

Panel 9.C

		Independent Variables					
Out-of-sample period	*Dependent Variable*	*Constant*	*Firm rating B+, B, or B-*	*Firm rating C+, C, or C-*	*Country Rating 1-9*	*N*	*Adj-R2*
2002-2004	Sharpe ratio	0.15*** (3.05)	-0.05 (-1.35)	-0.04 (-0.63)	0.03*** (4.04)	178	0.09
2003-2005	Sharpe ratio	0.29*** (8.27)	-0.02 (-0.65)	-0.03 (-0.73)	0.01** (2.21)	279	0.01

Panel 9.D

		Independent Variables					
Out-of-sample period	*Dependent Variable*	*Constant*	*Country rating B+, B, or B-*	*Country rating C+, C, or C-*	*Firm Rating 1-9*	*N*	*Adj-R2*
2002-2004	Sharpe ratio	0.31*** (5.42)	-0.19*** (-5.52)	-0.15*** (-4.21)	0.01 (1.23)	178	0.18
2003-2005	Sharpe ratio	0.36*** (9.47)	-0.09*** (-3.63)	-0.05* (-1.88)	0.00 (0.77)	279	0.04