

Home-Country Governance and Cross-Listing in the US

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Abstract

To what extent does cross-listing in the US mitigate the costs of inefficient legal standards in a firm's home country? Based on a sample of firms from 48 countries that cross-listed in the US between 1996 and 2008, we show that firms from stronger home country governance environments have significantly higher returns and market values. Our results extend prior work by showing the recoded or corrected antidirector index is insignificant in this context, whereas time-variant governance measures from the World Bank that capture a multitude of aspects of financial regulation and governance quality are statistically and economically significant, even after controlling for selection effects and other robustness checks.

Keywords: cross-listing, governance, law and finance

JEL Codes: G15, G38, K22

1 Introduction

This paper addresses the following question: do the benefits of cross-listing in the US systematically vary depending on the governance of the home country? Firms from poor-governance countries might issue stock in the U.S. in order to gain access to capital or to signal their quality. However, there are at least four reasons to expect that firms from strong-regulation countries will benefit the most from listing in the US. First, some firms cross-list to signal their quality. Firms from strong-regulation countries that have the best home-environment should be able to convey the clearest signal. Second, stringent disclosure regulations in the U.S. should be less costly for firms from strong governance countries, which already enforce disclosure. Third, strong-governance regimes are more similar to the U.S. than are poor-governance regimes. Thus, to the extent that investors exhibit a home-asset bias, firms from strong-governance countries should appeal to U.S. investors. Fourth, non-U.S. companies from poor governance regimes are still exposed to sovereign risks. This might discourage investors and drive down valuations. Thus a live, but heretofore untested, issue is whether poor (or strong) home country governance continues to influence a firm's valuation and returns even after it lists abroad.

This paper therefore considers whether home-country regulation and governance influences the valuations and returns of foreign companies that list in the US even after controlling for the non-random decision to list in the US. This paper examines a sample of 1334 non-US firms from 48 countries that list in the US between 1996 and 2008, for a total of 7780 firm-year observations. Further, we undertake complementary analyses of analyst forecast dispersion. We measure home-country governance using the World Bank's time-varying country-level governance indices that include, inter alia, government accountability, political stability, the absence of corruption, enforcement of the rule of law, and the effectiveness of political institutions (Daniel et al., 2009). These traits increase corporate governance and disclosure, and encourage political development, (La Porta et al., 1998). We also examine the impact of sovereign credit risk by using the S&P sovereign credit risk rating and use the updated anti-director rights index (ADRI) reported in Spamann (2010).

We find that even after controlling for selection effects, Tobin's Q is approximately 0.25 higher for firms that come from top quartile countries based on the World Bank governance indices than firms that come from the bottom quartile countries, which is 11.8% higher relative to the average Tobin's Q of all non-US firms in the sample. Furthermore, we find that one-year buy and hold abnormal returns (BHARs) are 0.335 higher for firms that come from the top quartile countries than the bottom quartile

countries, which is very economically significant since the average BHAR of all firms in the sample years is -0.354. Additionally, we find that home country regulations improve the accuracy of analyst coverage of the shares of non-US firms listed on a US exchange.¹;

Our analyses are related to three main lines of prior work that have shown there are likely to be greater benefits to listing in the US for firms based in strong regulation countries. First, Chung (2006) suggests that the ADRs from strong-regulation countries are more liquid and have less information asymmetry than ADRs from poor-regulation countries. However, Chung (2006) does not control for firm-level factors that might explain cross-sectional differences in liquidity. Furthermore, despite the sample spanning the period of legal reform following the Asian financial crisis, Chung (2006)'s measure of 'investor protection' does not change over time to reflect legal reforms that took place post-crisis.

Second, there is evidence that the home-market stocks of cross-listed firms tend to experience significant positive abnormal returns around the time of cross-listing (Miller, 1999; Doukas and Switzer, 2000). An explanation for this is that cross-listing signals a future improvement in governance and disclosure. This signal should be strongest for firms from poor-regulation countries. However, this interpretation is obscured by the alternative hypothesis that listing in the US also increases a company's access to capital. Therefore, such event-study results do not clearly show whether the positive reaction is due to improved disclosure or to increased capital access.

Third, Doige et al. (2004) find weak evidence that firms from strong governance countries have higher valuations. They find that home-country governance does not always increase valuations. However, they (1) focus on the period before the Asian Financial Crisis, a period known for skewed valuations (Sano and Taylor, 1999; Edison et al, 2000); (2) use the La Porta et al (1997, 1998) ADRI variable, which Spamann (2010) subsequently corrects; and (3) focus on a time-invariant measure of governance, which does not fully capture legal reforms over recent decades (see Bekaert et al., 2005). Subsequently, we examine time-varying measures of governance that capture multiple aspects of regulation and governance. We also examine the corrected Spamann (2010) ADRI index. This leads to substantially different results to those reached in Doige et al. (2004). We find that home-country regulation and governance significantly increase valuations. We also find that the recoded ADRI reported in Spamann (2010) does not significantly influence returns or valuations. We also show that sovereign

¹ We acknowledge that, this evidence is subject to various interpretations due to changes in the IBES dataset as reported in Ljungqvist et al. (2010).

credit risk significantly drives valuations for cross-listed firms. This highlights the importance of focusing on time-varying measures of governance and the importance of focusing on myriad aspects of regulation.

Overall, by using a comprehensive set of governance indicators that reflect the time-varying dimensions of governance and which capture the impact of regulatory changes, our results suggest that home-country regulation and governance is more important to firms' cross-listed stocks in the US than has been previously reported in the literature. Moreover, we show the importance of time-varying World Bank governance measures as opposed to legal measures proxied by indices such as anti-director rights. We also highlight the importance of sovereign credit risk by examining the relation between sovereign credit ratings and the returns and valuations of cross-listed firms.

The balance of this paper proceeds as follows. Section 2 outlines the data under analysis. Section 3 tests the relation between governance and value. Section 4 analyzes whether firms from strong-governance countries experience higher stock returns. Section 5 provides a number of robustness checks, and discusses related evidence on whether governance improves the information environment by reducing the variability of analyst earnings forecasts. Section 6 concludes that strong home-country governance remains important even for firms that list in the US.

2 Data and Univariate Tests

We examine whether home country-governance influences valuations or returns after controlling for other company and home-country variables. We check to ensure that these results are not due to the non-random decision to issue equity in the United States. The proxy for the firm's valuation is its Tobin's Q. The measure of returns is the buy and hold abnormal return (BHAR) over the trading year. Equations (1) and (2) represent Tobin's Q and Returns as a function of home-country governance and a set of control variables.

$$TobinQ = f(Governance, Controls) \quad (1)$$

$$BHAR = g(Governance, Controls) \quad (2)$$

The baseline specification is an OLS regression specification. This controls for clustering by firm and includes year dummies. However, following Doige et al. (2004) we use a Heckman model to control for the non-random decision to list in the United States.

Our sample comprises non-US firms listed on a US exchange between 1996 and 2008. There are 1334 unique firms for a total of 7780 firm-year observations. The sample size reduces to 5642 observations if we require that Spamann (2010) report an anti-director rights (ADRI) value for that home-country. The return and volume data comes from CRSP. Firm-level accounting data comes from Compustat. Analyst estimate data comes from Thomson Reuter's Institutional Brokers' Estimate System (IBES). The sample size reduces to 4232 firm-year observations in models that require IBES analyst forecasts. Data on country-governance comes from the World Bank. The World Bank does not report data for 1997, 1999, and 2001. For these years, we backfill data from the previous year (consistent with the approach in Gompers, Ishii, and Metrick, 2003; Masulis, Wang, and Xie, 2007; Bebchuk, Cohen, and Ferrell, 2008). The sample excludes firms that lack the required CRSP return data, or Compustat company-level data.

The variables come in five main categories: (1) dependent variables, (2) governance variables, (3) firm-based control variables, (4) home-country-based control variables, and (5) choice variables used for the Heckman model. Table 1 provides definitions of all the variables used. The following sub-sections provide a detailed description.

--Table 1 About Here --

2.1 Valuation and Returns Variables

The measure of market value is the firm's Tobin's Q (following Lang et al, 1989; Doidge et al., 2004; Bebchuk et al., 2008). The Tobin's Q is the market value of assets divided by the book value of assets (Compustat code: at). The market value of assets is the firm's market capitalization at the end of the fiscal year plus its book value of assets less its book value of equity (in Compustat codes: $prcc_f * csho + at - ceq$).

The key measure of stock returns is the buy and hold abnormal return earned over the course of a trading year. They are based on a Carhart (1997) four-factor model. Firm i 's abnormal return on day t (denoted AR_{it}) is its actual return (denoted R_{it}) less that predicted by a suitable benchmark (denoted $E[R_{it}]$). The benchmark is the return predicted by an ordinary least squares estimation of the Carhart

(1997) four-factor model.² The paper then calculates the buy-and hold abnormal return earned over the course of a trading year to generate a proxy for the company's long-run stock returns (consistent with Lyon et al., 1999; Foerster and Karolyi, 2000). The stock return data are sourced from CRSP.

2.2 Governance Variables

The key independent variables are the set of governance variables. The governance variables are from the World Bank.³ The World Bank measures and ranks the government's accountability, corruption, government effectiveness, political stability, regulatory effectiveness, and the rule of law. The standardized 'rank' variable ranks countries from 0 to 100 (where 100 marks good governance and 0 marks poor governance). We convert this into a percentage rank between 0 and 1 (by dividing by 100). Similar to Butler and Fauver (2006), we then compute a composite governance index (denoted 'GovIndex'), which is an equally weighted average of all six governance variables. This process induces seven governance variables: government accountability (denoted accountability), corruption (corruption), government effectiveness (effectiveness), political stability (stability), regulation (regulation), rule of law enforcement (law), and an equally weighted average of all six governance variables (GovIndex). In all cases, a higher number represents better quality governance. All variables are bound between 0 and 1.

We also include Standard and Poors sovereign credit rating. This rating assesses a government's ability to repay existing debt. A strong rating suggests strong macro-prudential regulation. Subsequently, there is an implicit sovereign ceiling provided by government's sovereign rating and as such, poor sovereign credit ratings may lead to high costs of borrowing for firms and hence, lower their stock performance. Furthermore, for some cross-listed firms that are of national significance, sovereign credit ratings reflect the implicit ability of their national government to provide bailouts for investors.

2.3 Control Variables

The models include five key firm-specific variables. First, 'IAOP' is the firm's industry adjusted operating performance. A firm's operating performance is its operating cash flow (Compustat code: oibdp) scaled by its total assets (Compustat code: at). The industry-adjusted operating performance is the

² The results are qualitatively the same for alternative benchmarks based on market-adjusted returns (following Fuller, Netter, and Stegemoller, 2002), raw-returns, an OLS estimation of the market model (following Moeller, Schlingemann, and Stulz, 2004; Masulis, Wang, and Xie, 2007), and a Fama and French (1993) three-factor model.

³ The data are available from <http://info.worldbank.org/governance/wgi/index.asp>

firm's operating performance less the average operating performance in that year of all other companies in the firm's SIC 4-digit industry.⁴

Second, 'LnAt' is the natural log of the firm's total assets (Compustat: at). This addresses the finding in Moeller, Schlingemann, and Stulz (2004) that the managers of large firms are entrenched and are more likely to make value-destroying investments (in their sample, takeovers).

Third, 'DPS' is the firm's dividends per share (Compustat: dvpsp_f). A high dividend payout ratio may signal that the firm has sufficient free cash to distribute to shareholders (Ravid and Sarig, 1991). This suggests a positive relation between returns and DPS. Alternatively, it may signal a lack of profitable investment opportunities, or may merely reflect dividend smoothing policies (Gugler, 2003). This implies a negative relation between returns and DPS.

Fourth, 'Cash/AT' is the firm's cash holding (Compustat: ch) scaled by its total assets (Compustat: at). This addresses the possibility of Jensen (1986) and Harford (1999) type agency conflicts. These would reduce valuations and returns.

Fifth, 'Leverage' is the firm's long term debt (Compustat code: dltt) scaled by its total assets (Compustat code: at). This controls for the role of leverage in reducing Jensen (1986) type agency conflicts of free cash flow. Thus, leverage should increase returns and valuations.

2.4 Country-based controls

We explicitly control for eight home-country variables. The first seven derive from the World Bank's World Development Indicators (WDI) and Global Development Finance (GDF) databases. 'RegionRet', is the equally weighted stock return for all stocks domiciled in the firm's home 'region'.⁵ We refer to a home region rather than a home country in order to (a) avoid biases due to illiquidity in small markets and (b) to account for the regional cross-linkages noted in Bekaert, Harvey, and Ng (2005).

⁴ The results are robust to other measures of operating performance (return on assets, return on equity) and to subtracting the industry-median performance rather than the industry mean performance. The results are also robust to the use of SIC 2-digit or SIC 3-digit industry classifications. Also, the results are robust to the definition of dividends per share, holding when using the dividends per share at the end of the last calendar year, and when defining the number of shares as either the number of common shares outstanding or the fully diluted number of shares outstanding.

⁵ The paper adopts the United Nations geographic region definitions, available from: <http://unstats.un.org/unsd/methods/m49/m49regin.htm>

‘CPI’ is the CPI inflation of the firm's home market. Fama and Schwert (1977) and Campbell and Vuolteenaho (2004) find that inflation, as a proxy for economic growth, can predict stock returns. ‘TradeImbalance’ is the home-country’s trade-imbalance, defined as $(\text{imports}-\text{exports})/(\text{imports}+\text{exports})$. This addresses the possibility that a trade imbalance might depress the home-country exchange rate (see Felstein, 2008). This might then influence the firm's operating environment and tax exposure, which in turn might influence its profitability. ‘FDI/GDP’ is the home country’s foreign direct investment (FDI) divided by its GDP. This addresses the relationship between FDI and economic development in the home country (Borensztein, DeGregorio, and Lee, 1998). ‘HomeMktCap/GDP’ is the total market capitalization of firms listed in the home-country scaled by the home country’s GDP. This controls for the relationship between market development, FDI use, and access to capital. ‘HomeTO’ is the turnover of the home-country’s stock market. This controls for the possibility that a liquid home market could reduce the average cost of capital for firms domiciled in that market following Butler, Grullon, and Weston, 2005), which might increase firm value. ‘HomeCorpTax’ is the highest marginal corporate tax rate in the home market. High home country corporate taxes might reduce firm value if they discourage FDI (following di Giovanni, 2005). This could reduce growth. Additionally, high taxes reduce after tax profits, which reduces firm value. Alternatively, if a country uses taxes productively, it might be able to use tax income to stimulate economic growth. This might increase returns. Also, to the extent that high taxes might discourage international investors, listing in the US might increase the firm's access to capital and improve firm value.

‘ADRI (Spamann)’ is the 1997 anti-director rights index reported in Spamann (2010). Spamann (2010) re-codes the anti-director rights index (ADRI) used in La Porta et al (1997, 1998). This index measures the extent to which regulations promote good corporate governance. Spamann (2010) does not report data for all countries in the sample. The sample size in the main non-Heckman regressions reduces to 5642 observations if we require that the country be in the Spamann (2010) country-set. We considered a variety of other variables, and the main results reported below are robust.⁶

2.5 Heckman Choice Variables

The Heckman model accounts for the non-random decision to issue equity in the U.S. The model includes choice variables that might influence the decision to issue equity in the United States. The Heckman model works by modeling the decision to issue equity in the United States as opposed to any

⁶ The main results vis-à-vis the governance variables hold whether or not we require the Spamann (2010) variable. They also hold if we replace it with the original ADRI score used in La Porta et al (1997, 1998).

other market in the world. Thus, the sample-of-interest is the set of non-U.S. firms that issue equity in the U.S. The control sample is the set of all non-U.S. firms that issue equity in any other market in the world. Unless otherwise mentioned, these variables date from before the firm issues equity on the stock market because they must influence the initial public offering (IPO) decision.

The choice variables are in several categories. First, we control for the Spamann (2010) 1997 ADRI index, and the value of the various governance variables at the time of the IPO. This reflects the possibility that companies from strong-governance countries are less likely to need to raise capital in the United States and are less likely to seek a certification benefit (if any) from subjecting themselves to U.S. regulations.

Second, we control for home country variables that reflect the local business environment and state of financial development including the home-region return, the home country's trade imbalance, FDI/GDP, Market Capitalization scaled by GDP, stock market turnover, and maximum corporate tax rate. Similarly to home governance variables, these address the possibility that firms in economically strong countries are less likely to need to raise capital overseas, so are less likely to list in the U.S.

Third, we control for listing-process variables including the use of a fixed-price pricing mechanism, and the use of firm-commitment underwriting. This is because the desire (or ability) to use a different listing process might influence the desire to list in the U.S. For example, if the firm wishes to use an auction pricing mechanism, rather than a bookbuilding mechanism, it might instead seek capital in Europe rather than in the United States.

Fourth, we use firm-level variables including the natural log of assets, whether the firm is venture-capital (VC) backed, and whether the firm is a high-tech firm as defined in Loughran and Ritter (2002).⁷ High-tech firms and VC backed firms might prefer to issue equity in the United States because the U.S. hosts many technologically developed corporations. Conversely, large firms might prefer U.S. listings (over home-market listings) because their large size enables them to sustain the cost of a cross-listing and is the only means for them to raise sufficient capital for their large scale investments.

⁷ Loughran and Ritter (2002) define high tech firms as firms in the industries: computer hardware (SIC codes: 3571, 3572, 3575, 3577, 3578); communications equipment (3661, 3663, 3669); electronics (3671, 3672, 3674, 3675, 3677, 3678, 3679); navigation equipment (3812); measuring and controlling devices (3823, 3825, 3826, 3827, 3829); medical instruments (3841, 3845); telephone equipment (4812, 4813); communications services (4899); and software (7371, 7372, 7373, 7374, 7375, 7378, 7379)

3 Results and Empirical Analysis

3.1 Univariate Tests

Table 2 contains the sample composition by year. The pattern of observations is broadly consistent with the existing literature (Karolyi, 2006). Columns 3-14 of Table 2 contain the average values of the various governance variables for each year. The table reveals a slight decline, in the average country-level governance of non-US firms over time. This may suggest an increased willingness of firms in economically strong, but legally developing, countries to list in the US, and highlights the importance of allowing governance variables to change over time (in contrast to previous studies like Doige et al., 2004 and Chung, 2006).

-- Table 2 About Here --

Table 3 provides summary statistics for Tobin's Q and BHAR by countries and difference-in-means tests by legal origin. Cross-listings to the US from English legal origin countries tend to have higher Tobin's Q, but a lower BHAR. The World Bank GovIndex is highest in Scandinavian legal origin countries, followed by German legal origin, English, French and Socialist legal origin countries.

-- Table 3 About Here --

Table 4 provides comparison tests for firms from poor (bottom quartile) governance countries and compares the statistics to firms from the good (top quartile) governance countries. Column 1 contains results for all non-US firms in the sample. Column 2 focuses on firms from bad governance countries, defined as countries whose GovIndex score for a given year is in the bottom 25% of the sample. Column 3 examines firms from good governance countries, defined as the complement of bad governance countries. These are countries whose GovIndex score for a given year is in the top 75% of the sample.

-- Tables 4 About Here --

--Figure 1 and Figure 2 About Here--

The results in Table 4 support the prediction that firms from good governance countries perform better than do those from bad governance countries. Table 4 indicates that the median Tobin's Q for firms

from good governance countries is significantly higher than that for firms from poor governance countries. While the mean is not significantly different, this might merely reflect well-documented heterogeneity in Tobin's Q measures, and justifies the use of standard errors clustered by firm. Figure 1 largely supports these findings, showing that firms from countries with better governance (as proxied by 'GovIndex') have higher Tobin's Q values, on average.

Focusing on BHARs, the value of -0.2979 in Column 1 shows that non-US firms tend to earn significantly negative returns on average. This is broadly consistent with factor-model results reported in the literature (see Errunza and Miller, 2000). However, in comparing Columns 2 and 3, firms from poor-governance countries earn even lower returns than do those from good governance countries. Figure 2 illustrates this; it shows that the firm's BHARs generally increase with governance in the home country.

Focusing on the governance variables (accountability, corruption, effectiveness, stability, regulation, law and GovIndex), we note that most firms that list in the US come from relatively strong-governance countries, with the mean and median rankings typically being above 0.8. This implies that firms from especially poor governance countries tend to avoid listing in the US. Speculative reasons for this might be that such firms are smaller, less-liquid, or simply do not wish to subject themselves to stringent US regulatory standards (following Doige, Karolyi, and Stulz, 2004).

The control variables differ significantly between firms from good governance and poor governance countries. All control variables (and differences therein) are significant at the 1% significance level. They show that poor governance countries tend to have higher inflation. Firms from poor governance countries also tend to be smaller (have lower total assets), pay lower dividends, and maintain less leverage. Conversely, they maintain higher cash holdings. Interestingly, they tend to have higher industry-adjusted operating performance. The cash-holdings and dividends results are largely consistent with those reported in Pinkowitz, Stulz and Williamson (2003, 2006). This suggests that if a company is from a poor governance country, then it will list abroad only if its performance is especially strong.

The correlation statistics in Table 4 confirm the strong relation between the control variables and various measures of governance. The significant differences between good and bad governance countries support the use of a multivariate regression framework. Table 5 also highlights potential issues of collinearity that are considered in the multivariate analyses reported in the next few sections.

-- Table 5 About Here --

3.2 *Cross-listing and Tobin's Q*

The first key empirical issue that we examine is whether firms from strong-governance countries have higher market values, controlling for other firm and country characteristics. The model specification is in equation (1). We include year fixed effects and cluster standard errors by firm (following Daines, 2001).

-- Tables 6 and 7 About Here --

The multivariate results support the hypothesis that firms from good governance countries have higher valuations. Table 6 contains the multivariate results for a sample of firms that have all control variables, including the Spamann (2010) ADRI variable.⁸ The results show a significant and positive relation between governance and firm value. Without any exceptions, we find that all governance variables are significant and positive at 1% significance. Furthermore, all have coefficients of 0.5 or greater, suggesting that a 0.1 point increase in governance, yields an economically important increase of at least 0.05 in Tobin's Q. Table 7 presents the results after controlling for selection effects. The data indicate Tobin's Q is approximately 0.25 higher for firms that come from top quartile countries of the World Bank governance indices than firms that come from the bottom quartile countries, which is 11.8% higher relative to the average Tobin's Q of all non-US firms in the sample. The results are robust across all of the World Bank governance indicators and S&P Ratings. This suggests that prudent management of sovereign debt by a cross-listed firm's home government and the maintenance of good governance standards can greatly benefit firm value. This presents new evidence on the flow-through impact of governments' debt and regulatory management to individual firm valuation effects.

Note that the Spamann (2010) antidirector rights index is statistically insignificant in all of our specifications in Tables 6 and 7 (among other specifications considered but not explicitly reported). The analyses in Doige et al. (2004) focus on market values before the Asian Financial Crisis, a period of skewed asset valuations (Corsetti, Sarno and Taylor, 1999; Edison et al., 2000). Also, Spamann (2010) significantly updated or modified the La Porta et al. (1998) governance index used in Doige et al. (2004) suggesting that it is important to account for changes in governance standards over time.

⁸ The sample size increases to 7780 observations when we do not require ADRI data. The results hold in this expanded sample.

The control variables in Tables 6 and 7 are largely consistent with expectations. First, there is a strong lead-lag relationship in Tobin's Q (Aivazian, Ge, and Qiu, 2005). Second, there is a strong positive relation between performance (as proxied by *iaop*) and Tobin's Q, supporting the use of Tobin's Q as a measure of firm value (consistent with Morck et al., 1988). Third, there is a strong negative relation between firm-size and Tobin's Q. This may arise because Tobin's Q incorporates growth prospects. Growth tends to concentrate in small high-innovation firms rather than in large stable firms (following Bharadwaj, Bharadwaj, and Konsynski, 1999). Fourth, cash holdings increase Tobin's Q, suggesting that cash can increase market value. While this is inconsistent with the agency reason for holding cash (see Harford, 1999), it does quadrature with the value-enhancing precautionary reason for holding cash (Han and Qiu, 2007). This precautionary motive might concentrate in cross-listed or foreign firms because (a) the voluntary decision to undergo additional market scrutiny (by cross-listing in the US) suggests lower agency conflicts, and (b) cross-listed firms may have a greater need to protect against currency movements. Given that foreign currency movements are a key source of risk for international firms, this result is consistent with the finding in Bates, Kahle and Stulz (2009) that cash holdings increase with corporate risk.

3.3 Cross-Listing and Buy-and-hold Returns

In this section we consider whether firms cross-listed to the US from strong-governance countries earn higher returns. It is conceivable that any improvement in returns might merely reflect the performance of the firm, rather than the performance of the country. Thus, it is necessary to control for these firm-level variables in a multivariate setting. The OLS and Heckman findings are reported in Tables 8 and 9, respectively.

-- Tables 8 and 9 About Here --

The multivariate regression results confirm that firms from poor governance countries earn lower stock returns. Here, returns are significantly higher for firms from countries that have strong accountability, little corruption, an effective government, strong regulations, or enforce the rule of law. Further, the estimated coefficients for all governance proxies are significant and positive at 10% significance, with the sole exceptions being that firms from countries with more stable governments and higher sovereign risk ratings do not earn higher returns (the coefficients are positive but statistically insignificant). In terms of the economic significance, we find that one-year buy and hold abnormal

returns (BHAR) are 0.335 higher for firms that come from the top quartile countries than the bottom quartile countries, which is economically significant since the average BHAR of all firms in the sample years is -0.354.

The control variables yield some interesting observations. First, strong returns on the home-market reduce returns for cross-listed firms (significant at 1%). This implies that if the home-market is performing well, then US investors may prefer to invest directly in the home market (that is, the non-US market) rather than invest in foreign stocks listed on the US market. This is consistent with the finding in Halling, Pagano, Randl, and Zechner (2008) that US trading volumes are higher for stocks from less developed markets, possibly suggesting a preference to invest in the non-US market if that market is performing well. Second, large firms tend to perform better. This suggests that size is an important factor for international firms, and that international firms might use size in order to exert market power. Third, large cash holdings reduce returns. This quadrates with the hypothesis in Harford (1999) that large cash holdings induce Jensen (1986) type agency conflicts.

4 Robustness Tests and Extensions

This section explains a number of robustness tests and extensions to the estimated models to assess robustness to specification issues and alternative governance variables. Furthermore, we discuss evidence from complementary analyses of dispersion in earnings forecasts which has been widely used to reflect differences of opinion and quality of firm-specific information (Diether, Malloy and Scherbina, 2002).

4.1 ICRG Governance Measures

The results are also robust to the use of other measures of home market governance. The foregoing analysis uses the World Bank's governance indicators. The World Bank index is itself an aggregate of other governance measures. Nonetheless, it is important to ensure the results are robust to alternative governance measures. An alternative source of governance data are the International Country Risk Guide (ICRG) risk ratings.⁹ The robustness tests focus on the ICRG's composite index of political,

⁹ The ICRG publishes a composite index that measures, for each month, a country's financial, economic and political risks. This paper uses the yearly average of the ICRG composite index. Papers using the ICRG governance measures include Erb, Harvey, and Viskanta (1996) and Bekaert et al. (2007), among others.

financial, and economic risks. The regression analysis analyzes whether firms from strong ICRG-governance countries have higher returns and value, and have lower forecast dispersion suggestive of a more transparent information environment. The data indicate that firms from a strong governance environment, as proxied by the ICRG composite index for the firm's home country also, have higher returns and higher values (as proxied by Tobin's Q). This result confirms the importance of strong home-market governance for cross-listed firms.

4.2 Other Model Specification Issues

We establish that our results are robust to model specification issues. First, they hold for various forms of clustering, holding in models that cluster standard errors by firm, or by 2, 3, or 4 digit SIC codes. They also hold in models that include or exclude year dummies.

Second, the results hold for different buy-and-hold return (BHAR) specifications. They hold for BHARs computed using the Carhart (1997) 4-factor model (as reported), market-adjusted returns (following Fuller, Netter, and Stegemoller, 2002), raw-returns, an OLS estimation of the market model (following Moeller, Schlingemann, and Stulz, 2004; Masulis, Wang, and Xie, 2007), and a Fama and French (1993) three-factor model.¹⁰

Third, the results are robust to collinearity. The VIF for the variables does not exceed two, suggesting that collinearity is not a live issue in our analyses. Nonetheless, robustness tests also use principal component analysis to condense the variables into orthogonal components, which should not be collinear. The principal components analysis retains only components whose eigenvalue is at least one. This yields five components in total. Three principal components, denoted HomeComp1-Homecomp3, represent home country variables. Two principal components, denoted FirmComp1- FirmComp2, represent firm-level variables. The results hold in these models (unreported). We also address fears that the ADRI variable is highly correlated with the governance variables by dropping the ADRI variable. The results hold in these models (unreported).

Fourth, the results are robust to time-period. The live issue is whether the results are robust to either (a) the Asian financial crisis, or (b) the tech-boom in the US. To control for the Asian financial

¹⁰ These unreported results are available upon request from the corresponding author.

crisis, robustness tests exclude observations from before 1999. To control for the tech-boom, robustness tests exclude years 1999-2001. The results hold in both restricted samples.

4.3 Cross-Listing and Forecast Dispersion

In addition to assessing the effect of home-country governance on BHAR and Tobin's Q, we conducted complementary analyses of home country governance on analyst forecast dispersion based on IBES data. We do not report these results explicitly, but nevertheless discuss them in this subsection. Ljungqvist et al. (2009) show that IBES data suffer from misreporting problems and whilst their findings relate specifically to analysts' stock recommendations and not earnings forecasts in IBES, we acknowledge at the outset that our findings here may be subject to inconsistency in misreporting across countries.

Our prior is that firms from better-governance countries have more accurate analyst forecasts. The literature suggests that a non-US company can improve its information environment by listing in the US (Fernandes and Ferreira, 2008). However, it remains unclear whether this benefits all cross-listed firms or mainly benefits those from strong regulation environments. The aim of our additional test is to determine whether firms from strong-governance environments have better quality earnings forecasts. The proxy for the quality of the information environment is the standard deviation of analyst earnings forecasts. The analyst forecasts are downloaded from IBES. To maintain the maximum sample size, we focus on one-period ahead forecasts, and only examine earnings forecasts. For each forecast period, IBES reports the mean and variance of analyst earnings forecasts. A firm can have multiple forecast periods in a given year. The measure of forecast dispersion is then the average of the standard deviation in analyst earnings forecasts for all firms covered by analysts within a given country, denoted *sdest*.

Our regression model examines the determinants of the dispersion of analyst earnings forecasts. The dependent variable is *sdest*. The key independent variable is the governance variable. The control variables are as in Section 2. Requiring analyst earnings forecast data reduces the sample to 4232 observations. Since the standard deviation is at least zero, by definition, the model is a left-censored Tobit model.¹¹

¹¹ The results also hold in an OLS model and in a truncated regression model (as used in Fuller, 2003).

The results suggest that firms from strong-governance countries have a superior information environment. The univariate results suggest that strong-governance firms have lower median analyst earnings forecasts. The regression results show that the coefficients on all of the governance variables are strongly significant and negative. This indicates that firms from strong governance countries have a lower forecast variance, suggesting that strong governance at home helps to improve the firm's information environment.

The control variables also yield interesting findings. First, firms from markets with stronger returns have less volatile earnings forecasts (at 1% significance). This may be because strong market-returns reflect legal and political development, and this should reduce forecast dispersion (as per the governance variables). Second, firms that have strong operating performance (as measured by *iaop*) have less volatile earnings forecasts, implying that such firms are more reliable. Third, and interestingly, firms that pay higher dividends, or are larger, have more volatile earnings forecasts. While this conflicts with the theory that large firms are more stable, it is consistent with evidence that large firms (especially large international firms) cover more geographic regions and industry segments (Doukas and Pantzalis, 2003), which makes them more complex and difficult to value. Fourth, highly levered firms have more volatile earnings forecasts. This may be because increased use of debt may make the firm more complex and thus more difficult to value (Anderson and Sundaresan, 1996).

In short, with the caveat that the IBES data are subject to problems of consistency, our analyses of such data indicates that good governance continues to benefit firms after they list in the US by improving the information environment and reducing investor uncertainty and/or differences of opinion as conveyed in the volatility of analyst earnings forecasts. This finding is consistent with the results presented in Tables 6-9.

5 Conclusion

This paper examines whether home-country regulation continues to benefit firms even after they undergo cross-listing on a US stock exchange. Strong country-level governance is important for political reform and economic development in the home market (La Porta et al., 1997). Thus, firms might attempt to ameliorate a poor-governance home market by listing in the US. Thus, the issue is whether firms from poor-governance environments can still benefit from listing in the US, or if poor-governance continues to harm the firm's returns and information-environment even after listing abroad.

Our results strongly indicate that strong governance in the home market benefits firms even after they list in the US. It benefits firms by improving their stock performance, increasing market values, and inducing more accurate analyst forecasts. Our findings are statistically and economically significant and hold across all dimensions of governance and a large range of robustness checks. The resounding message from our study is that governance at home plays a crucial role in the success of cross-listings – cross-listing cannot ameliorate information asymmetries created by poor governance environments in a cross-listed firm’s home market as investors remain wary of investing and having exposure to these more risky business environments.

While there has been some previous analysis of the relation between governance and the performance of cross-listed stocks (for example Doige, et al., 2004; Chung, 2006), this literature has focused on the bubble years preceding the Asian financial crisis, has used time-invariant measures of governance, or has focused on narrow aspects of governance (as opposed to the multi-dimensional approach in this paper). Prior evidence therein on the importance of antidirector rights, for example, does not hold in a more recent sample and with updated antidirector rights indices coded by Spamann (2010). Furthermore, while there has been some prior analysis of the information environment for cross-listed stocks, it is uncertain whether the information environment improves for all cross-listed stocks, or merely for those from strong-governance countries. Thus, by using a time-varying measure of governance, and by examining the relation between governance and analyst forecasts, this paper highlights the continued importance of strong governance at home for firms that list abroad. Future research could examine other complementary microstructure aspects of exchange listings in reference to governance standards for cross listed stocks, especially with the consolidation of stock exchanges and introduction of new security regulations in recent years as additional data and natural experiments become available.

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Table 1. Variable Definitions

Variable	Definition
Dependent Variables	
$TobinQ_t$	The firm's Tobin's Q in year t . The Tobin's Q is the firm's market value of assets divided by its book value of assets. The market value of assets is the market capitalization at the end of year t plus the book assets less the book equity. In Compustat codes this is $(prcc_f * csho - ceq + at)/at$
$BHAR_t$	This is the firm's buy and hold abnormal return computed over the length of year t . The buy and hold abnormal return is the product of the actual return less the expected return, where the expected return is based upon a Carhart (1997) four factor model.
Governance Variables	
Accountability	A score between 0 and 1 that represents government accountability. A higher score indicates better accountability. Source: World Bank.
Corruption	A score between 0 and 1 that represents government corruption. A higher score indicates less corruption. Source: World Bank.
Effectiveness	A score between 0 and 1 that represents government effectiveness. A higher score indicates greater effectiveness. Source: World Bank.
Stability	A score between 0 and 1 that represents government stability. A higher score indicates a more stable political environment. Source: World Bank.
Regulation	A score between 0 and 1 that represents government regulation. A higher score indicates more effective regulatory bodies. Source: World Bank.
RuleOfLaw	A score between 0 and 1 that represents rule of law. A higher score indicates better enforcement of rule of law ideals. Source: World Bank.
GovIndex	The average of the six World Bank governance variables (Accountability, Corruption, Effectiveness, Stability, Regulation, RuleOfLaw)
ADRI (Spamann)	The antidirector's rights (originally from La Porta et al., 1998, and updated by Spamann, 2010)
IcrgIndex	The average ICRG composite governance index for the firm's home country over the year. Source: ICRG. This is an equal-weighted average of the individual financial, economic and political risk ratings.
IcrgFinancial	The Financial stability and quality of the home country in year t as reported by the ICRG.
IcrgEcon	The Economic stability and quality of the home country in year t as reported by the ICRG.
IcrgPolitical	The Political stability and quality of the home country in year t as reported by the ICRG.
SapRating	The S&P sovereign credit ratings. S&P provides ordinal credit ratings ranging from AAA to Default/Selective Default for sovereign obligors. We first transform the ratings into a linear scale between 0 and 20. and then we convert those into a score between 0 and 1 by dividing by 20.
Control Variables	
IAOP	The industry adjusted operating performance in year t . The operating performance is the operating cash flow before depreciation (Compustat code: oibdp) divided by its total assets (Compustat code at). The industry adjusted operating performance is the operating performance less the mean operating performance for all compustat companies in that firm's industry and year.
$\ln A_t$	The natural log of the firm's total assets (Compustat code: at) in year t .
DPS	The dividends per share (Compustat code: dvpsp_f). This is the dividends paid divided by the number of shares outstanding at the end of the fiscal year.
Cash/AT	The firm's cash (Compustat code: ch) divided by its total assets (Compustat code: at).
Leverage	The firm's leverage, defined as its total long term debt (Compustat code: dltt) divided by its total assets (Compustat code: at).
Country Level Variables	
RegionRet	The equally weighted average stock return earned in the firm's home region. The region is the regional group of the firm's home country as defined by the United Nations (here: http://unstats.un.org/unsd/methods/m49/m49regin.htm)
CPI	The home country's CPI in year t as reported by the World Bank
TradeImbalance	The home country's import-export imbalance. It is $(imports - exports)/(imports + exports)$. Source: World Bank.
FDI/GDP	The amount of foreign direct investment in the home country scaled by the home country's GDP. Source: World Bank.
HomeMktCap/GDP	The market capitalization of all firms listed in the home market divided by the home market's GDP. Source: World Bank.
HomeTO	The turnover of all stocks in the home market. Source: World Bank.

HomeCorpTax The highest corporate tax rate for firms paying tax in the home country. Source: World Bank.

Heckman Control Variables

ADRI (Spamann) Governance (Yr 1)	The Spamann (2010) Anti-director rights index (ADRI) The value of the governance variable in the year of the cross-listing. This is variously the issue-year value of 'accountability', 'corruption', 'effectiveness', 'stability', 'regulation', 'law', 'GovIndex', or 'SapRating'.
HomeRet (Yr 1)	The equally weighted average stock return earned in the firm's home region in the year of the cross-listing. The region is the regional group of the firm's home country as defined by the United Nations (here: http://unstats.un.org/unsd/methods/m49/m49regin.htm)
Tech	An indicator that equals one if the firm is a high-tech firm as defined in Loughran and Ritter (2002). They define a high-tech firm as one that operates in the following industries: computer hardware (SIC codes: 3571, 3572, 3575, 3577, 3578); communications equipment (3661, 3663, 3669); electronics (3671, 3672, 3674, 3675, 3677, 3678, 3679); navigation equipment (3812); measuring and controlling devices (3823, 3825, 3826, 3827, 3829); medical instruments (3841, 3845); telephone equipment (4812, 4813); communications services (4899); and software (7371, 7372, 7373, 7374, 7375, 7378, 7379)
FixedPrice	An indicator that equals one if SDC reports the firm used a fixed price pricing mechanism.
VC	An indicator that equals one if the firm is VC backed.
FirmCommitment	An indicator that equals one if the firm uses a firm commitment underwriting mechanism.
TradeImbalance (Yr 1)	The home country's import-export imbalance in the year of the issue. It is (imports - exports)/(imports + exports). Source: World Bank.
FDI/GDP (Yr 1)	The amount of foreign direct investment in the home country scaled by the home country's GDP in the year of the issue. Source: World Bank.
HomeMktCap/GDP (yr1)	The market capitalization of all firms listed in the home market divided by the home market's GDP in the year of the issue. Source: World Bank.
HomeTo (yr1)	The turnover of all stocks in the home market in the year of the listing. Source: World Bank.
Assets (yr1/listing)	The natural log of the firms' assets in the year of listing as reported by SDC.
Tax	The maximum corporate tax rate in the home country.

Variable	Definition
Dependent Variables	
$TobinQ_t$	The firm's Tobin's Q in year t . The Tobin's Q is the firm's market value of assets divided by its book value of assets. The market value of assets is the market capitalization at the end of year t plus the book assets less the book equity. In Compustat codes this is $(prcc_f * csho - ceq + at)/at$
$BHAR_t$	This is the firm's buy and hold abnormal return computed over the length of year t . The buy and hold abnormal return is the product of the actual return less the expected return, where the expected return is based upon a Carhart (1997) four factor model.

Governance Variables

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Corruption	A score between 0 and 1 that represents government corruption. A higher score indicates less corruption. Source: World Bank.
Effectiveness	A score between 0 and 1 that represents government effectiveness. A higher score indicates better effectiveness. Source: World Bank.
Stability	A score between 0 and 1 that represents government stability. A higher score indicates a more stable political environment. Source: World Bank.
Regulation	A score between 0 and 1 that represents government regulation. A higher score indicates more effective regulatory bodies. Source: World Bank.
Law	A score between 0 and 1 that represents rule of law. A higher score indicates better enforcement of rule of law ideals. Source: World Bank.
GovIndex	The average of the six World Bank governance variables (Accountability, Corruption, Effectiveness, Stability, Regulation, RuleOfLaw)
ADRI (Spamann)	The antidirector's rights (originally from La Porta et al., 1998, and updated by Spamann, 2010)
IcrgIndex	The average ICRG composite governance index for the firm's home country over the year. Source: ICRG.
IcrgFinancial	The Financial stability and quality of the home country in year t as reported by the ICRG.
IcrgEcon	The Economic stability and quality of the home country in year t as reported by the ICRG.
IcrgPolitical	The Political stability and quality of the home country in year t as reported by the ICRG.
SapRating	The S&P sovereign risk rating. S&P reports a risk rating between 0 and 20. We convert that into a score between 0 and 1 by dividing by 20.

Control Variables	
IAOP	The industry adjusted operating performance in year t . The operating performance is the operating cash flow before depreciation (Compustat code: oibdp) divided by its total assets (Compustat code at). The industry adjusted operating performance is the operating performance less the mean operating performance for all compustat companies in that firm's industry and year.
$\ln A_t$	The natural log of the firm's total assets (Compustat code: at) in year t .
DPS	The dividends per share (Compustat code: dvpsp_f). This is the dividends paid divided by the number of shares outstanding at the end of the fiscal year.
Cash/AT	The firm's cash (Compustat code: ch) divided by its total assets (Compustat code: at).
Leverage	The firm's leverage, defined as its total long term debt (Compustat code: dltd) divided by its total assets (Compustat code: at).
Country Level Variables	
RegionRet	The equally weighted average stock return earned in the firm's home region. The region is the regional group of the firm's home country as defined by the United Nations (here: http://unstats.un.org/unsd/methods/m49/m49regin.htm)
CPI	The home country's CPI in year t as reported by the World Bank
TradeImbalance	The home country's import-export imbalance. It is $(\text{imports} - \text{exports}) / (\text{imports} + \text{exports})$. Source: World Bank.
FDI/GDP	The amount of foreign direct investment in the home country scaled by the home country's GDP. Source: World Bank.
HomeMktCap/GDP	The market capitalization of all firms listed in the home market divided by the home market's GDP. Source: World Bank.
HomeTO	The turnover of all stocks in the home market. Source: World Bank.
HomeCorpTax	The highest corporate tax rate for firms paying tax in the home country. Source: World Bank.
Heckman Control Variables	
ADRI (Spamann) Governance (Yr 1)	The Spamann (2010) ADRI variable The value of the governance variable in the year of the IPO. This is variously the issue-year value of 'accountability', 'corruption', 'effectiveness', 'stability', 'regulation', 'law', 'GovIndex', or 'SapRating'.
HomeRet (Yr 1)	The equally weighted average stock return earned in the firm's home region in the year of the IPO. The region is the regional group of the firm's home country as defined by the United Nations (here: http://unstats.un.org/unsd/methods/m49/m49regin.htm)
Tech	An indicator that equals one if the firm is a high-tech firm as defined in Loughran and Ritter (2002). They define a high-tech firm as one that operates in the following industries: computer hardware (SIC codes: 3571, 3572, 3575, 3577, 3578); communications equipment (3661, 3663, 3669); electronics (3671, 3672, 3674, 3675, 3677, 3678, 3679); navigation equipment (3812); measuring and controlling devices (3823, 3825, 3826, 3827, 3829); medical instruments (3841, 3845); telephone equipment (4812, 4813); communications services (4899); and software (7371, 7372, 7373, 7374, 7375, 7378, 7379)
FixedPrice	An indicator that equals one if SDC reports the firm used a fixed price pricing mechanism.
VC	An indicator that equals one if the firm is VC backed.
FirmCommitment	An indicator that equals one if the firm uses a firm commitment underwriting mechanism.
TradeImbalance (Yr 1)	The home country's import-export imbalance in the year of the issue. It is $(\text{imports} - \text{exports}) / (\text{imports} + \text{exports})$. Source: World Bank.
FDI/GDP (Yr 1)	The amount of foreign direct investment in the home country scaled by the home country's GDP in the year of the issue. Source: World Bank.
HomeMktCap/GDP (yr1)	The market capitalization of all firms listed in the home market divided by the home market's GDP in the year of the issue. Source: World Bank.
HomeTo (yr1)	The turnover of all stocks in the home market in the year of the listing. Source: World Bank.
Assets (yr1/listing)	The natural log of the firms' assets in the year of listing as reported by SDC.
Tax	The maximum corporate tax rate in the home country.

Table 2. Summary Statistics by Year

Table 2 presents the sample composition by year for cross-listed firms in the US. Column 2 reports the number observations in a given year as well as over the total sample period. Columns 3-14 contain the average values of the various governance variables for each year and over the total sample period. Variables are as defined in Table 1.

Year	Observations	accountability	corruption	effectiveness	stability	regulation	law	GovIndex	SapRating	IcrgIndex	IcrgFinancial	IcrgEcon	IcrgPolitical
1996	437	0.803	0.882	0.892	0.703	0.840	0.876	0.833	0.869	0.810	0.445	0.385	0.789
1997	535	0.804	0.879	0.888	0.700	0.843	0.874	0.831	0.870	0.818	0.424	0.394	0.816
1998	568	0.806	0.859	0.868	0.711	0.870	0.851	0.828	0.856	0.796	0.383	0.403	0.806
1999	590	0.805	0.858	0.866	0.709	0.866	0.848	0.825	0.851	0.783	0.384	0.392	0.791
2000	602	0.816	0.864	0.872	0.720	0.869	0.852	0.832	0.853	0.800	0.383	0.415	0.802
2001	671	0.810	0.863	0.872	0.717	0.866	0.852	0.830	0.853	0.807	0.388	0.406	0.820
2002	663	0.796	0.842	0.864	0.698	0.836	0.829	0.811	0.852	0.796	0.390	0.400	0.803
2003	657	0.801	0.849	0.868	0.659	0.839	0.830	0.807	0.856	0.804	0.404	0.400	0.805
2004	639	0.825	0.836	0.870	0.647	0.845	0.832	0.809	0.863	0.815	0.412	0.412	0.805
2005	620	0.795	0.818	0.857	0.635	0.831	0.817	0.792	0.862	0.808	0.408	0.410	0.799
2006	634	0.772	0.816	0.858	0.629	0.827	0.813	0.786	0.867	0.805	0.409	0.415	0.787
2007	585	0.742	0.786	0.840	0.615	0.813	0.789	0.764	0.862	0.805	0.409	0.420	0.782
2008	579	0.694	0.764	0.833	0.578	0.799	0.764	0.739	0.861	0.794	0.411	0.409	0.768
Total	7,780	0.790	0.839	0.865	0.670	0.842	0.832	0.806	0.859	0.803	0.403	0.405	0.798

Table 3. Summary Statistics by Country

This table presents values of legal indices by country as well as the average Tobin's Q and BHAR by country based on the origins of firms cross-listed to the US. Panel A summarizes the data. Panel B presents comparison tests for different legal origins. *, **, *** Significant at the 10%, 5% and 1% levels, respectively.

Panel A. Summary by Legal Origin and Country

Country Code	Country	Number	Tobin's Q	BHAR	Accountability	Corruption	Effectiveness	Political Stability	Regulation	RuleOfLaw	GovIndex (WB)	S&P Rating	GovIndex (ICRG)	Financial (ICRG)	Economic (ICRG)	Political (ICRG)
English Legal Origin																
AUS	AUSTRALIA	192	2.10	-0.35	0.94	0.94	0.94	0.87	0.94	0.96	0.93	0.96	0.82	0.36	0.41	0.87
BLZ	BELIZE	6	0.88	-0.06	0.74	0.51	0.60	0.60	0.52	0.55	0.59	0.37	.	.	.	.
CAN	CANADA	2,098	2.01	-0.35	0.96	0.95	0.96	0.86	0.92	0.95	0.93	0.98	0.85	0.41	0.42	0.87
GHA	GHANA	6	1.15	0.14	0.43	0.46	0.49	0.39	0.48	0.46	0.45	.	0.60	0.29	0.28	0.64
HKG	HONG KONG	270	1.34	-0.76	0.56	0.89	0.89	0.76	0.98	0.86	0.82	0.81	0.82	0.44	0.43	0.77
IND	INDIA	81	2.69	-0.63	0.59	0.46	0.54	0.19	0.45	0.57	0.47	0.49	0.69	0.43	0.35	0.61
IRL	IRELAND	127	1.90	-0.27	0.92	0.92	0.92	0.91	0.97	0.93	0.93	0.97	0.86	0.41	0.43	0.89
ISR	ISRAEL	838	1.76	-0.34	0.68	0.83	0.84	0.14	0.82	0.79	0.68	0.71	0.70	0.39	0.39	0.62
NZL	NEW ZEALAND	42	1.60	-0.08	0.99	0.99	0.94	0.97	0.97	0.98	0.97	0.95	0.80	0.33	0.40	0.88
PNG	PAPUA NEW GUINEA	5	1.99	-0.20	0.45	0.18	0.24	0.25	0.24	0.17	0.26	0.30	0.64	0.38	0.34	0.56
SGP	SINGAPORE	54	1.33	-0.30	0.47	0.98	0.99	0.90	0.99	0.93	0.88	1.00	0.89	0.45	0.47	0.86
ZAF	SOUTH AFRICA	109	1.82	-0.13	0.72	0.69	0.77	0.33	0.63	0.57	0.62	0.57	0.71	0.38	0.36	0.69
THA	THAILAND	5	1.30	-0.95	0.62	0.52	0.61	0.59	0.60	0.65	0.60	0.55	0.72	0.37	0.36	0.71
GBR	UNITED KINGDOM	783	2.10	-0.31	0.89	0.96	0.95	0.73	0.98	0.94	0.91	1.00	0.82	0.39	0.39	0.86
French Legal Origin																
ARG	ARGENTINA	126	1.30	-0.14	0.57	0.45	0.56	0.43	0.42	0.42	0.48	0.26	0.69	0.32	0.38	0.69
BEL	BELGIUM	21	2.32	-0.28	0.92	0.91	0.93	0.81	0.88	0.90	0.89	0.95	0.82	0.40	0.43	0.82
BRA	BRAZIL	72	1.39	-0.16	0.58	0.56	0.55	0.40	0.58	0.45	0.52	0.41	0.67	0.33	0.35	0.66
CHL	CHILE	217	1.44	-0.06	0.76	0.89	0.86	0.68	0.92	0.87	0.83	0.72	0.78	0.38	0.40	0.78
COL	COLOMBIA	4	1.07	-0.44	0.35	0.31	0.52	0.10	0.60	0.24	0.35	0.55	0.59	0.35	0.31	0.51
FRA	FRANCE	266	1.80	-0.20	0.86	0.90	0.90	0.72	0.83	0.90	0.85	1.00	0.79	0.39	0.41	0.79
GRC	GREECE	84	1.26	-0.20	0.77	0.67	0.74	0.62	0.76	0.74	0.72	0.73	0.74	0.34	0.37	0.77
IDN	INDONESIA	42	1.64	-0.54	0.31	0.20	0.39	0.12	0.40	0.28	0.28	0.33	0.61	0.35	0.33	0.53

ITA	ITALY	136	1.49	-0.09	0.79	0.72	0.78	0.67	0.77	0.74	0.75	0.88	0.80	0.40	0.40	0.80
JOR	JORDAN	3	1.41	0.02	0.39	0.59	0.58	0.40	0.66	0.63	0.54	0.40	0.73	0.38	0.37	0.71
LUX	LUXEMBOURG	83	1.69	-0.18	0.95	0.95	0.97	0.98	0.98	0.97	0.97	1.00	0.91	0.43	0.45	0.93
MEX	MEXICO	256	1.47	-0.16	0.51	0.45	0.62	0.33	0.66	0.39	0.49	0.53	0.72	0.38	0.36	0.70
NLD	NETHERLANDS	317	1.92	-0.23	0.98	0.97	0.98	0.91	0.98	0.95	0.96	1.00	0.86	0.40	0.42	0.90
PAN	PANAMA	28	1.22	-0.20	0.63	0.43	0.58	0.50	0.68	0.50	0.55	0.47	0.73	0.35	0.37	0.73
PER	PERU	29	1.90	0.05	0.45	0.50	0.46	0.20	0.63	0.31	0.42	0.44	0.69	0.38	0.37	0.63
PHL	PHILIPPINES	25	1.29	-0.26	0.52	0.35	0.53	0.23	0.56	0.43	0.43	0.46	0.70	0.37	0.37	0.66
PRT	PORTUGAL	25	1.30	0.01	0.91	0.87	0.85	0.88	0.85	0.86	0.87	0.88	0.80	0.36	0.37	0.87
ESP	SPAIN	84	1.45	-0.15	0.87	0.88	0.89	0.61	0.87	0.87	0.83	0.95	0.79	0.39	0.40	0.80
TUR	TURKEY	8	2.33	-0.17	0.42	0.53	0.61	0.23	0.58	0.54	0.49	0.35	0.62	0.31	0.30	0.63
VEN	VENEZUELA	14	0.98	-1.59	0.45	0.20	0.26	0.23	0.33	0.22	0.28	0.30	0.65	0.39	0.32	0.59
German Legal Origin																
AUT	AUSTRIA	6	1.50	-0.04	0.92	0.95	0.94	0.87	0.93	0.97	0.93	1.00	0.85	0.42	0.40	0.88
DEU	GERMANY	161	1.63	-0.18	0.93	0.94	0.93	0.83	0.92	0.94	0.91	1.00	.	.	.	.
JPN	JAPAN	331	1.44	-0.01	0.77	0.86	0.87	0.85	0.77	0.89	0.83	0.92	0.85	0.47	0.40	0.83
CHE	SWITZERLAND	110	2.18	-0.22	0.96	0.97	0.99	0.98	0.94	0.99	0.97	1.00	0.90	0.46	0.44	0.89
Scandinavian Legal Origin																
DNK	DENMARK	40	2.20	-0.44	0.98	0.98	0.98	0.89	0.97	0.98	0.96	0.98	0.87	0.42	0.43	0.89
FIN	FINLAND	48	1.93	-0.12	0.98	1.00	0.97	0.98	0.97	0.99	0.98	0.96	0.88	0.38	0.45	0.92
ISL	ICELAND	8	2.68	-0.16	0.97	0.99	0.98	0.99	0.93	1.00	0.98	0.81	0.80	0.31	0.38	0.91
NOR	NORWAY	58	1.38	-0.10	0.98	0.97	0.97	0.96	0.89	0.99	0.96	1.00	0.91	0.47	0.47	0.88
SWE	SWEDEN	105	1.95	-0.10	0.98	0.99	0.98	0.97	0.92	0.97	0.97	0.96	0.85	0.37	0.43	0.89
Socialist Legal Origin																
CHN	CHINA	394	1.84	-0.50	0.07	0.40	0.59	0.36	0.43	0.43	0.38	0.70	0.77	0.46	0.40	0.68
HUN	HUNGARY	11	1.73	-0.23	0.85	0.74	0.79	0.76	0.84	0.75	0.79	0.66	0.75	0.36	0.35	0.80
KAZ	KAZAKHSTAN	2	1.05	-0.01	0.18	0.18	0.36	0.60	0.37	0.24	0.32	0.58	.	.	.	.
POL	POLAND	2	1.20	-0.44	0.82	0.70	0.73	0.59	0.71	0.70	0.71	0.63	0.75	0.38	0.35	0.77
RUS	RUSSIA	48	1.92	-0.30	0.29	0.21	0.42	0.22	0.34	0.19	0.28	0.45	.	.	.	.

Table 3 (Continued)

Panel B. Comparison Tests by Legal Origin

	Tobin's Q		BHAR		GovIndex (WB)	
	Mean	Median	Mean	Median	Mean	Median
English	1.934***	1.453***	-0.362***	-0.153***	0.859***	0.925***
French	1.590***	1.242***	-0.182***	-0.078***	0.733***	0.826***
German	1.622***	1.259***	-0.095***	-0.048***	0.881***	0.855***
Scandinavian	1.881***	1.399***	-0.158***	-0.106***	0.967***	0.968***
Socialist	1.843***	1.321***	-0.471***	-0.119***	0.381***	0.374***
Not English	1.656***	1.272***	-0.205***	-0.074***	0.730***	0.835***
Not French	1.893***	1.415***	-0.334***	-0.132***	0.829***	0.922***
Not German	1.838***	1.386***	-0.315***	-0.125***	0.800***	0.898***
Not Scandinavian	1.819***	1.373***	-0.303***	-0.115***	0.801***	0.892***
Not Socialist	1.820***	1.377***	-0.287***	-0.115***	0.833***	0.908***
English - French	0.344***	0.211***	-0.180***	-0.075***	0.126***	0.099***
English- German	0.312***	0.194***	-0.267***	-0.105***	-0.022***	0.070***
English - Scandinavian	0.053	0.055*	-0.204***	-0.047	-0.108***	-0.043***
English - Socialist	0.090	0.132***	0.110	-0.033	0.478***	0.551***
English - Not English	0.277***	0.181***	-0.157***	-0.079***	0.129***	0.090***
French - German	-0.032	-0.017	-0.087**	-0.030	-0.148***	-0.029***
French - Scandinavian	-0.291***	-0.156***	-0.024	0.028	-0.235***	-0.142***
French - Socialist	-0.254***	-0.078	0.289***	0.042***	0.352***	0.452***
French - Not French	-0.303***	-0.173***	0.152***	0.054	-0.096***	-0.097***
German - Scandinavian	-0.259***	-0.139***	0.063	0.058	-0.086***	-0.113***
German - Socialist	-0.221***	-0.062	0.377***	0.072	0.500***	0.481***
German - Not German	-3.460***	-2.645***	0.410***	0.172***	-1.681***	-1.753***
Scandinavian - Socialist	0.037	0.078	0.313***	0.014	0.587***	0.594***
Scandinavian - Not Scandinavian	-3.700	-2.772*	0.461**	0.221	-1.768***	-1.860***
Socialist - Not Socialist	0.024	-0.056	-0.184*	-0.005	-0.452***	-0.534***

Table 4. Univariate Statistics

Table 3 reports the univariate statistics. Column 1 contains univariate statistics for the full sample of 7780 observations. Column 2 analyzes firms that cross-listed to the US from poor-governance countries. A country is a poor-governance country in year t if its GovIndex in year t is in the bottom 25% of all firms in that year. Column 3 contains results for firms from good governance countries, defined as the complement of poor-governance countries. Column 4 contains the difference between Column 2 and Column 3. Variables are as defined in Table 1. *, **, *** Significant at the 10%, 5% and 1% levels, respectively.

	All (1)	Bad Governance (2)	Good Governance (3)	Difference (4)=(2)-(3)
TobinQ	1.8210***	1.7529***	1.8412***	-0.0883***
BHAR	-0.2979***	-0.4408***	-0.2556***	-0.1852***
accountability	0.7902***	0.4771***	0.8829***	-0.4058***
corruption	0.8388***	0.5581***	0.9219***	-0.3638***
effectiveness	0.8647***	0.6513***	0.9279***	-0.2767***
stability	0.6702***	0.2916***	0.7824***	-0.4908***
regulation	0.8421***	0.6043***	0.9125***	-0.3083***
law	0.8317***	0.5402***	0.9181***	-0.3779***
GovIndex	0.8063***	0.5204***	0.8910***	-0.3705***
SapRating	0.8592***	0.5824***	0.9408***	-0.3584***
IcrgIndex	0.8029***	0.7143***	0.8291***	-0.1147***
IcrgFinancial	0.4027***	0.3947***	0.4051***	-0.0104***
IcrgEcon	0.4052***	0.3739***	0.4144***	-0.0405***
IcrgPolitical	0.7982***	0.6603***	0.8388***	-0.1785***
RegionRet	0.1450***	0.2268***	0.1208***	0.1060***
TobinQ (t-1)	2.2537***	2.2032***	2.2686***	-0.0654***
CPI	0.0300***	0.0596***	0.0213***	0.0383***
IAOP (t-1)	0.0374***	0.0612***	0.0303***	0.0309***
LnAt (t-1)	6.8582***	6.3239***	7.0165***	-0.6925***
DPS (t-1)	0.4059***	0.3128***	0.4335***	-0.1207***
Cash/AT (t-1)	0.1374***	0.1557***	0.1319***	0.0238***
Debt/AT (t-1)	0.1547***	0.1303***	0.1619***	-0.0316***
TradeImbalance	-0.0261***	-0.0172***	-0.0288***	0.0116***
FDI/GDP	0.0006***	0.0003***	0.0008***	-0.0005***
HomeMktcap/GDP	0.0103***	0.0060***	0.0116***	-0.0056***
HomeTO	0.7559***	0.6085***	0.7991***	-0.1906***
HomeCorpTax	0.3308***	0.3346***	0.3297***	0.0049***

Table 5. Correlations

This table reports the correlation statistics between all variables used. Correlations greater than 0.03 in absolute value are significant at the 5% level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	
(1) Tobin's Q	1.00																										
(2) BHAR	-0.19	1.00																									
(3) accountability	0.09	0.04	1.00																								
(4) corruption	0.08	0.01	0.84	1.00																							
(5) effectiveness	0.09	0.02	0.82	0.96	1.00																						
(6) stability	0.05	0.01	0.67	0.66	0.70	1.00																					
(7) regulation	0.06	0.01	0.78	0.91	0.91	0.63	1.00																				
(8) Law	0.09	0.01	0.84	0.97	0.96	0.72	0.90	1.00																			
(9) GovIndex	0.08	0.02	0.90	0.96	0.95	0.82	0.91	0.97	1.00																		
(10) SapRating	0.11	0.02	0.69	0.82	0.87	0.76	0.77	0.86	0.86	1.00																	
(11) IcrgIndex	0.08	0.02	0.57	0.65	0.73	0.88	0.61	0.71	0.78	0.84	1.00																
(12) Icrg Financial	0.04	-0.02	-0.18	0.05	0.12	0.17	-0.04	0.12	0.04	0.30	0.45	1.00															
(13) IcrgEcon	0.04	0.03	0.37	0.51	0.60	0.59	0.49	0.54	0.56	0.63	0.77	0.32	1.00														
(14) IcrgPolitical	0.08	0.03	0.72	0.69	0.75	0.93	0.68	0.74	0.84	0.81	0.92	0.11	0.59	1.00													
(15) RegionRet	0.13	-0.06	-0.13	-0.12	-0.12	-0.09	-0.14	-0.11	-0.13	-0.10	-0.03	0.19	-0.04	-0.10	1.00												
(16) TobinQ (t-1)	0.52	-0.07	0.03	0.03	0.04	0.03	0.02	0.04	0.03	0.06	0.04	0.02	0.04	0.03	-0.04	1.00											
(17) CPI	-0.03	0.01	-0.27	-0.44	-0.44	-0.35	-0.35	-0.45	-0.41	-0.46	-0.44	-0.31	-0.46	-0.33	-0.04	-0.02	1.00										
(18) IAOP (t-1)	-0.01	0.07	-0.04	-0.04	-0.04	-0.03	-0.03	-0.04	-0.04	-0.03	-0.02	0.01	-0.04	-0.03	0.00	-0.23	0.02	1.00									
(19) LnAt (t-1)	-0.27	0.17	0.08	-0.02	-0.02	0.17	-0.01	0.00	0.05	0.09	0.14	0.01	-0.01	0.19	-0.03	-0.22	0.00	0.14	1.00								
(20) DPS (t-1)	-0.08	0.06	0.06	0.02	0.01	0.05	0.04	0.02	0.04	0.04	0.02	-0.08	-0.03	0.06	-0.03	-0.08	0.00	0.02	0.43	1.00							
(21) Cash/AT (t-1)	0.31	-0.05	-0.14	-0.03	-0.01	-0.10	-0.06	-0.02	-0.07	0.03	-0.02	0.14	0.05	-0.10	0.02	0.26	-0.06	-0.04	-0.41	-0.21	1.00						
(22) Debt/AT (t-1)	-0.13	0.04	0.11	0.04	0.04	0.13	0.07	0.04	0.08	0.04	0.07	-0.13	-0.01	0.14	-0.03	-0.11	0.04	0.01	0.28	0.08	-0.30	1.00					
(23) Trade Imbalance	0.00	-0.01	0.06	0.06	0.01	-0.27	0.17	0.05	-0.01	-0.06	-0.36	-0.34	-0.40	-0.22	-0.11	0.00	-0.03	0.01	-0.03	0.05	-0.01	0.03	1.00				
(24) FDI/GDP	-0.02	-0.01	0.05	0.07	0.07	0.11	0.11	0.08	0.09	0.07	0.14	0.04	0.15	0.12	-0.02	-0.01	-0.03	-0.01	0.01	-0.02	-0.01	0.07	-0.12	1.00			
(25) Home Mktcap/GDP	0.07	-0.04	0.12	0.34	0.36	0.31	0.40	0.32	0.33	0.29	0.37	0.18	0.43	0.29	0.25	0.01	-0.24	-0.01	-0.05	0.00	0.03	-0.03	-0.05	0.14	1.00		
(26) HomeTO	0.04	0.01	0.06	0.09	0.14	0.15	0.08	0.13	0.12	0.33	0.23	0.19	0.16	0.19	-0.06	0.05	-0.13	0.03	0.22	0.10	0.07	-0.06	0.00	-0.13	0.03	1.00	
(27) HomeCorpTax	0.07	0.00	0.23	0.06	0.06	0.06	-0.06	0.08	0.09	0.10	0.02	-0.03	-0.13	0.07	0.07	0.06	-0.05	-0.02	-0.04	-0.08	-0.01	-0.01	-0.01	-0.09	-0.34	0.05	1.00

Table 6. OLS Regressions for Tobin's Q

This table presents OLS regression results for Tobin's Q as the dependent variable as per equation (1). The key independent variable is the governance variable, which is defined differently for each regression as indicated in each column. The models include year dummy variables. Standard errors are clustered by firm. Variables are as defined in Table 1. *, **, *** Significant at the 10%, 5% and 1% levels, respectively.

Governance Variable	accountability	corruption	effectiveness	stability	regulation	law	GovIndex	SapRating
Governance	0.971*** [0.000]	0.572*** [0.006]	0.632** [0.013]	0.406*** [0.000]	0.521*** [0.008]	0.494*** [0.007]	0.812*** [0.000]	2.188*** [0.000]
ADRI (Spamann)	0.017 [0.572]	0.027 [0.390]	0.039 [0.207]	0.02 [0.511]	0.043 [0.156]	0.028 [0.372]	0.017 [0.576]	0.038 [0.205]
RegionRet	-0.012 [0.901]	-0.152 [0.120]	-0.157 [0.103]	-0.133 [0.173]	-0.168* [0.075]	-0.171* [0.081]	-0.085 [0.385]	-0.109 [0.274]
TobinQ (t-1)	0.158*** [0.000]	0.160*** [0.000]	0.160*** [0.000]	0.159*** [0.000]	0.160*** [0.000]	0.160*** [0.000]	0.160*** [0.000]	0.157*** [0.000]
CPI	2.193*** [0.000]	2.584*** [0.001]	2.386*** [0.002]	2.053*** [0.002]	2.352*** [0.002]	2.488*** [0.002]	2.758*** [0.000]	3.008*** [0.000]
IAOP (t-1)	0.534*** [0.000]	0.534*** [0.000]	0.534*** [0.000]	0.537*** [0.000]	0.534*** [0.000]	0.532*** [0.000]	0.537*** [0.000]	0.523*** [0.000]
LnAt (t-1)	-0.070*** [0.000]	-0.070*** [0.000]	-0.071*** [0.000]	-0.080*** [0.000]	-0.071*** [0.000]	-0.071*** [0.000]	-0.072*** [0.000]	-0.081*** [0.000]
DPS (t-1)	0.039** [0.043]	0.040** [0.040]	0.042** [0.033]	0.046** [0.020]	0.041** [0.039]	0.042** [0.035]	0.041** [0.034]	0.052** [0.011]
Cash/AT (t-1)	0.928*** [0.000]	0.880*** [0.000]	0.882*** [0.000]	0.897*** [0.000]	0.892*** [0.000]	0.880*** [0.000]	0.894*** [0.000]	0.899*** [0.000]
Debt/AT (t-1)	-0.179 [0.206]	-0.125 [0.369]	-0.127 [0.363]	-0.151 [0.292]	-0.129 [0.357]	-0.126 [0.371]	-0.157 [0.269]	-0.149 [0.297]
TradeImbalance	0.538* [0.078]	0.23 [0.459]	0.212 [0.495]	0.622* [0.058]	0.051 [0.869]	0.183 [0.555]	0.45 [0.145]	0.829** [0.014]
FDI/GDP	-68.369* [0.052]	-95.198** [0.019]	-94.262** [0.020]	-94.035** [0.016]	-95.680** [0.021]	-89.435** [0.024]	-91.370** [0.019]	-88.311** [0.027]
HomeMktcap/GDP	3.204 [0.366]	2.668 [0.467]	2.104 [0.566]	0.743 [0.843]	2.587 [0.489]	2.941 [0.420]	0.961 [0.791]	-1.699 [0.653]
HomeTO	0.076 [0.152]	0.145*** [0.008]	0.151*** [0.005]	0.148*** [0.005]	0.152*** [0.007]	0.143*** [0.008]	0.112** [0.042]	0.131** [0.017]
HomeCorpTax	-0.075 [0.808]	0.356 [0.243]	0.282 [0.353]	0.256 [0.408]	0.493 [0.118]	0.337 [0.270]	0.27 [0.377]	0.196 [0.541]
Constant	1.136*** [0.000]	1.264*** [0.000]	1.205*** [0.000]	1.634*** [0.000]	1.203*** [0.000]	1.352*** [0.000]	1.172*** [0.000]	0.184 [0.604]
Observations	5642	5642	5642	5642	5642	5642	5642	5493
R-squared	0.373	0.367	0.366	0.369	0.366	0.366	0.369	0.371

Table 7. Heckman Regressions for Tobin's Q

This table presents Heckman regression results for Tobin's Q as the dependent variable in the second step, and the decision to cross-list is in the first step. The key independent variable is the governance variable, as proxied by different dimensions of governance for each regression as indicated in each column. The models include year dummy variables. Standard errors are clustered by firm. Variables are as defined in Table 1. *, **, *** Significant at the 10%, 5% and 1% levels, respectively.

Governance Variable	accountability	corruption	effectiveness	stability	regulation	law	GovIndex	SapRating
Governance	0.460*** [0.000]	0.441*** [0.000]	0.513*** [0.000]	0.466*** [0.000]	0.474*** [0.000]	0.425*** [0.000]	0.612*** [0.000]	0.653*** [0.000]
ADRI (Spamann)	-0.022 [0.345]	-0.004 [0.869]	0.012 [0.587]	-0.003 [0.905]	0.005 [0.802]	0.001 [0.953]	-0.016 [0.475]	0.007 [0.753]
RegionRet	-0.104 [0.381]	-0.173 [0.147]	-0.174 [0.144]	-0.074 [0.535]	-0.17 [0.151]	-0.173 [0.143]	-0.091 [0.451]	-0.068 [0.578]
CPI	1.477*** [0.007]	1.935*** [0.001]	1.820*** [0.001]	2.096*** [0.000]	1.808*** [0.001]	1.996*** [0.001]	2.058*** [0.000]	2.727*** [0.000]
IAOP (t-1)	0.199*** [0.007]	0.193*** [0.009]	0.189** [0.010]	0.198*** [0.007]	0.192*** [0.009]	0.190*** [0.010]	0.198*** [0.007]	0.193*** [0.009]
LnAt (t-1)	-0.073*** [0.000]	-0.073*** [0.000]	-0.073*** [0.000]	-0.081*** [0.000]	-0.073*** [0.000]	-0.073*** [0.000]	-0.073*** [0.000]	-0.076*** [0.000]
DPS (t-1)	0.001 [0.789]	0.001 [0.765]	0.001 [0.739]	0.002 [0.661]	0.001 [0.771]	0.001 [0.745]	0.001 [0.764]	0.001 [0.722]
Cash/AT (t-1)	1.903*** [0.000]	1.867*** [0.000]	1.864*** [0.000]	1.842*** [0.000]	1.876*** [0.000]	1.863*** [0.000]	1.877*** [0.000]	1.836*** [0.000]
Debt/AT (t-1)	-0.160* [0.078]	-0.143 [0.119]	-0.147 [0.107]	-0.178* [0.051]	-0.139 [0.127]	-0.146 [0.109]	-0.166* [0.069]	-0.134 [0.148]
TradeImbalance	-0.342 [0.138]	-0.258 [0.264]	-0.207 [0.370]	0.3 [0.225]	-0.382 [0.101]	-0.239 [0.301]	-0.17 [0.460]	-0.107 [0.651]
FDI/GDP	-66.810* [0.055]	-70.969** [0.043]	-67.451* [0.054]	-73.314** [0.035]	-73.999** [0.035]	-65.384* [0.061]	-74.181** [0.034]	-66.949* [0.057]
HomeMktcap/GDP	17.267*** [0.000]	16.812*** [0.000]	15.820*** [0.000]	15.352*** [0.000]	16.711*** [0.000]	16.759*** [0.000]	15.337*** [0.000]	15.462*** [0.000]
HomeTO	0.192*** [0.000]	0.180*** [0.000]	0.171*** [0.000]	0.148*** [0.000]	0.182*** [0.000]	0.164*** [0.000]	0.163*** [0.000]	0.123*** [0.004]
HomeCorpTax	0.645** [0.019]	0.927*** [0.001]	0.861*** [0.002]	0.809*** [0.003]	1.024*** [0.000]	0.897*** [0.001]	0.809*** [0.003]	0.794*** [0.004]
HighTech	0.190*** [0.000]	0.173*** [0.000]	0.171*** [0.000]	0.208*** [0.000]	0.177*** [0.000]	0.170*** [0.000]	0.184*** [0.000]	0.189*** [0.000]
Constant	0.718*** [0.000]	0.522*** [0.001]	0.423*** [0.008]	0.799*** [0.000]	0.420*** [0.008]	0.551*** [0.000]	0.562*** [0.000]	0.410*** [0.009]

Table 7 (continued)
Selection Equation

ADRI (Spamann)	-0.622*** [0.000]	-0.323*** [0.000]	-0.619*** [0.000]	-1.265*** [0.000]	-0.600*** [0.000]	-0.676*** [0.000]	-0.932*** [0.000]	-1.193*** [0.000]
Governance (Yr 1)	-0.397*** [0.000]	-0.440*** [0.000]	-0.434*** [0.000]	-0.337*** [0.000]	-0.435*** [0.000]	-0.413*** [0.000]	-0.392*** [0.000]	-0.412*** [0.000]
HomeRet (Yr 1)	0.150*** [0.003]	0.182*** [0.000]	0.175*** [0.001]	0.063 [0.214]	0.159*** [0.002]	0.163*** [0.001]	0.132*** [0.009]	0.157*** [0.002]
Tech	0.571*** [0.000]	0.589*** [0.000]	0.588*** [0.000]	0.542*** [0.000]	0.587*** [0.000]	0.588*** [0.000]	0.577*** [0.000]	0.573*** [0.000]
FixedPrice	-2.116*** [0.000]	-2.077*** [0.000]	-2.081*** [0.000]	-2.160*** [0.000]	-2.083*** [0.000]	-2.095*** [0.000]	-2.116*** [0.000]	-2.082*** [0.000]
VC	1.059*** [0.000]	1.063*** [0.000]	1.059*** [0.000]	1.003*** [0.000]	1.065*** [0.000]	1.053*** [0.000]	1.044*** [0.000]	1.027*** [0.000]
FirmCommitment	-0.712*** [0.000]	-0.692*** [0.000]	-0.694*** [0.000]	-0.696*** [0.000]	-0.701*** [0.000]	-0.698*** [0.000]	-0.708*** [0.000]	-0.705*** [0.000]
TradeImbalance (Yr1)	-1.354*** [0.000]	-1.404*** [0.000]	-1.442*** [0.000]	-2.627*** [0.000]	-1.187*** [0.000]	-1.419*** [0.000]	-1.511*** [0.000]	-1.838*** [0.000]
FDI/GDP (yr1)	249.645*** [0.000]	263.934*** [0.000]	259.273*** [0.000]	258.602*** [0.000]	271.142*** [0.000]	251.687*** [0.000]	255.128*** [0.000]	235.192*** [0.000]
HomeMktCap/GDP (yr1)	2.548 [0.316]	1.139 [0.670]	3.59 [0.186]	11.870*** [0.000]	3.93 [0.149]	4.278 [0.105]	6.957*** [0.008]	10.028*** [0.000]
HomeTo (yr1)	-0.317*** [0.000]	-0.303*** [0.000]	-0.297*** [0.000]	-0.287*** [0.000]	-0.308*** [0.000]	-0.310*** [0.000]	-0.309*** [0.000]	-0.253*** [0.000]
Assets (yr1/listing)	0.281*** [0.000]	0.283*** [0.000]	0.281*** [0.000]	0.280*** [0.000]	0.283*** [0.000]	0.281*** [0.000]	0.280*** [0.000]	0.278*** [0.000]
Tax	5.611*** [0.000]	5.338*** [0.000]	5.413*** [0.000]	5.645*** [0.000]	5.204*** [0.000]	5.436*** [0.000]	5.511*** [0.000]	5.836*** [0.000]
Constant	-1.268*** [0.000]	-1.275*** [0.000]	-1.075*** [0.000]	-1.146*** [0.000]	-1.035*** [0.000]	-1.105*** [0.000]	-1.027*** [0.000]	-0.843*** [0.000]
Lambda	0.146*** [0.000]	0.147*** [0.000]	0.145*** [0.000]	0.131*** [0.000]	0.147*** [0.000]	0.141*** [0.000]	0.142*** [0.000]	0.139*** [0.000]
Observations	37,043	37,043	37,043	37,043	37,043	37,043	37,043	36,918
Wald Stat	1211.2	1191.95	1188.82	1227.44	1194.79	1191.36	1208.52	1159.79
Rho	0.14	0.14	0.14	0.13	0.14	0.14	0.14	0.14

Table 8 OLS Regressions for BHAR (Carhart Based)

This table presents OLS regression results for BHAR (the buy and hold abnormal return earned over the course of the trading year) as the dependent variable as per equation (2). The key independent variable is Governance, proxied by different dimensions of governance as indicated in each column. The models include year dummy variables. Standard errors are clustered by firm. Variables are as defined in Table 1. *, **, *** Significant at the 10%, 5% and 1% levels, respectively.

Governance Variable	accountability	corruption	effectiveness	stability	regulation	law	GovIndex	SapRating
Governance	0.375*	0.587**	0.862***	0.008	0.461*	0.486**	0.464*	0.752
	[0.097]	[0.031]	[0.008]	[0.942]	[0.056]	[0.023]	[0.070]	[0.199]
ADRI (Spamann)	0.005	-0.009	-0.002	0.019	0.009	-0.007	-0.002	0.012
	[0.794]	[0.700]	[0.908]	[0.312]	[0.651]	[0.749]	[0.940]	[0.535]
RegionRet	-0.441***	-0.423***	-0.391***	-0.537***	-0.453***	-0.446***	-0.436***	-0.476***
	[0.001]	[0.002]	[0.004]	[0.000]	[0.001]	[0.001]	[0.001]	[0.000]
TobinQ (t-1)	-0.022	-0.021	-0.021	-0.022	-0.021	-0.022	-0.022	-0.023
	[0.115]	[0.129]	[0.124]	[0.134]	[0.130]	[0.123]	[0.119]	[0.111]
CPI	1.569	2.470*	2.596**	1.28	2.098	2.324*	2.036	1.825
	[0.203]	[0.068]	[0.043]	[0.288]	[0.102]	[0.083]	[0.110]	[0.134]
IAOP (t-1)	0.129	0.132	0.133	0.128	0.132	0.13	0.131	0.116
	[0.410]	[0.399]	[0.397]	[0.414]	[0.400]	[0.407]	[0.404]	[0.448]
LnAt (t-1)	0.082***	0.085***	0.086***	0.080***	0.084***	0.084***	0.082***	0.081***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
DPS (t-1)	-0.019	-0.021	-0.019	-0.017	-0.02	-0.019	-0.019	-0.016
	[0.317]	[0.287]	[0.328]	[0.354]	[0.297]	[0.321]	[0.331]	[0.434]
Cash/AT (t-1)	0.195	0.174	0.176	0.178	0.186	0.174	0.184	0.191
	[0.274]	[0.322]	[0.316]	[0.314]	[0.293]	[0.322]	[0.297]	[0.286]
Debt/AT (t-1)	-0.006	-0.005	-0.018	0.025	-0.004	-0.004	-0.009	0.003
	[0.954]	[0.965]	[0.872]	[0.820]	[0.974]	[0.973]	[0.935]	[0.981]
TradeImbalance	0.336	0.371	0.428	0.136	0.179	0.314	0.387	0.408
	[0.366]	[0.304]	[0.243]	[0.734]	[0.594]	[0.375]	[0.312]	[0.373]
FDI/GDP	-39.039	-52.148	-52.317	-47.816	-51.965	-46.295	-48.013	-47.174
	[0.417]	[0.284]	[0.282]	[0.324]	[0.286]	[0.338]	[0.321]	[0.333]
HomeMktcap/GDP	-1.756	-3.469	-5.035	-1.136	-3.205	-3.097	-3.372	-3.077
	[0.689]	[0.468]	[0.316]	[0.807]	[0.499]	[0.506]	[0.491]	[0.554]
HomeTO	-0.257***	-0.268***	-0.279***	-0.209***	-0.253***	-0.267***	-0.260***	-0.239***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
HomeCorpTax	0.506*	0.662**	0.556**	0.676**	0.786**	0.644**	0.620**	0.602**
	[0.057]	[0.023]	[0.046]	[0.021]	[0.014]	[0.026]	[0.029]	[0.038]
Constant	-1.285***	-1.508***	-1.731***	-1.073***	-1.500***	-1.402***	-1.367***	-1.604***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.001]
Observations	5642	5642	5642	5642	5642	5642	5642	5493
R-squared	0.06	0.061	0.062	0.059	0.06	0.061	0.06	0.06

Table 9. Heckman Regressions for BHAR (Carhart Based)

This table presents Heckman regressions for Tobin's Q as the dependent variable in the second step, and the decision to cross-list is in the first step. The key independent variable is the governance variable, which is defined differently for each regression as indicated in each column. The models include year dummy variables. Standard errors are clustered by firm. Variables are as defined in Table 1. *, **, *** Significant at the 10%, 5% and 1% levels, respectively.

Governance Variable	accountability	corruption	effectiveness	stability	regulation	law	GovIndex	SapRating
Governance	0.441*** [0.002]	0.546*** [0.005]	0.903*** [0.000]	0.156 [0.251]	0.677*** [0.001]	0.587*** [0.001]	0.625*** [0.002]	0.278 [0.154]
ADRI (Spamann)	0.075** [0.042]	0.080** [0.034]	0.082** [0.019]	0.115*** [0.001]	0.083** [0.019]	0.079** [0.029]	0.074** [0.043]	0.121*** [0.000]
RegionRet	-0.401** [0.040]	-0.410** [0.036]	-0.351* [0.073]	-0.527*** [0.007]	-0.393** [0.044]	-0.403** [0.038]	-0.378* [0.056]	-0.542*** [0.007]
CPI	0.167 [0.849]	0.786 [0.394]	0.948 [0.297]	0.147 [0.870]	0.734 [0.416]	0.908 [0.325]	0.707 [0.435]	0.498 [0.609]
IAOP (t-1)	-0.038 [0.752]	-0.038 [0.753]	-0.04 [0.739]	-0.054 [0.653]	-0.039 [0.746]	-0.041 [0.733]	-0.039 [0.749]	-0.055 [0.654]
LnAt (t-1)	0.061*** [0.000]	0.061*** [0.000]	0.064*** [0.000]	0.061*** [0.000]	0.063*** [0.000]	0.062*** [0.000]	0.062*** [0.000]	0.061*** [0.000]
DPS (t-1)	-0.004 [0.478]	-0.004 [0.484]	-0.004 [0.491]	-0.004 [0.529]	-0.004 [0.475]	-0.004 [0.494]	-0.004 [0.494]	-0.004 [0.508]
Cash/AT (t-1)	-0.687*** [0.000]	-0.711*** [0.000]	-0.707*** [0.000]	-0.742*** [0.000]	-0.697*** [0.000]	-0.716*** [0.000]	-0.709*** [0.000]	-0.733*** [0.000]
Debt/AT (t-1)	-0.038 [0.799]	-0.038 [0.803]	-0.059 [0.698]	-0.007 [0.962]	-0.033 [0.825]	-0.04 [0.793]	-0.044 [0.773]	-0.024 [0.873]
TradeImbalance	0.919** [0.015]	0.996*** [0.008]	1.050*** [0.005]	1.147*** [0.004]	0.790** [0.038]	1.013*** [0.007]	1.059*** [0.005]	1.160*** [0.003]
FDI/GDP	17.61 [0.757]	9.436 [0.869]	8.704 [0.879]	23.9 [0.676]	5.182 [0.928]	15.927 [0.780]	11.527 [0.840]	25.052 [0.664]
HomeMktcap/GDP	3.868 [0.436]	2.574 [0.613]	-0.905 [0.863]	4.826 [0.344]	1.571 [0.758]	1.898 [0.709]	1.564 [0.761]	3.886 [0.456]
HomeTO	-0.350*** [0.000]	-0.369*** [0.000]	-0.397*** [0.000]	-0.351*** [0.000]	-0.371*** [0.000]	-0.390*** [0.000]	-0.379*** [0.000]	-0.389*** [0.000]
HomeCorpTax	-0.204 [0.649]	-0.024 [0.956]	-0.164 [0.711]	0.088 [0.842]	0.101 [0.818]	-0.06 [0.892]	-0.079 [0.858]	0.004 [0.992]
HighTech	-0.123** [0.041]	-0.143** [0.017]	-0.145** [0.016]	-0.124** [0.041]	-0.135** [0.025]	-0.144** [0.017]	-0.127** [0.034]	-0.136** [0.026]
Constant	-0.754*** [0.002]	-0.914*** [0.000]	-1.147*** [0.000]	-0.838*** [0.001]	-1.090*** [0.000]	-0.910*** [0.000]	-0.902*** [0.000]	-0.901*** [0.000]

Table 9 (continued)
Selection Equation

ADRI (Spamann)	-0.755*** [0.000]	-0.474*** [0.000]	-0.923*** [0.000]	-1.415*** [0.000]	-0.843*** [0.000]	-0.849*** [0.000]	-1.148*** [0.000]	-1.384*** [0.000]
Governance (Yr 1)	-0.386*** [0.000]	-0.433*** [0.000]	-0.425*** [0.000]	-0.329*** [0.000]	-0.427*** [0.000]	-0.405*** [0.000]	-0.380*** [0.000]	-0.408*** [0.000]
HomeRet (Yr 1)	0.212*** [0.000]	0.243*** [0.000]	0.231*** [0.000]	0.124** [0.019]	0.214*** [0.000]	0.226*** [0.000]	0.189*** [0.000]	0.223*** [0.000]
Tech	0.591*** [0.000]	0.613*** [0.000]	0.611*** [0.000]	0.559*** [0.000]	0.611*** [0.000]	0.612*** [0.000]	0.599*** [0.000]	0.592*** [0.000]
FixedPrice	-2.219*** [0.000]	-2.176*** [0.000]	-2.185*** [0.000]	-2.268*** [0.000]	-2.184*** [0.000]	-2.195*** [0.000]	-2.222*** [0.000]	-2.180*** [0.000]
VC	1.007*** [0.000]	1.011*** [0.000]	1.005*** [0.000]	0.942*** [0.000]	1.014*** [0.000]	0.999*** [0.000]	0.988*** [0.000]	0.975*** [0.000]
FirmCommitment	-0.723*** [0.000]	-0.706*** [0.000]	-0.708*** [0.000]	-0.702*** [0.000]	-0.717*** [0.000]	-0.709*** [0.000]	-0.720*** [0.000]	-0.714*** [0.000]
TradeImbalance (Yr1)	-1.520*** [0.000]	-1.579*** [0.000]	-1.657*** [0.000]	-2.986*** [0.000]	-1.272*** [0.000]	-1.598*** [0.000]	-1.725*** [0.000]	-2.109*** [0.000]
FDI/GDP (yr1)	235.177*** [0.000]	251.397*** [0.000]	244.258*** [0.000]	247.444*** [0.000]	262.487*** [0.000]	236.830*** [0.000]	241.630*** [0.000]	221.186*** [0.000]
HomeMktCap/GDP (yr1)	-2.345 [0.379]	-3.416 [0.222]	0.415 [0.884]	7.512*** [0.006]	0.27 [0.924]	-0.122 [0.965]	3.106 [0.260]	5.978** [0.030]
HomeTo (yr1)	-0.364*** [0.000]	-0.348*** [0.000]	-0.340*** [0.000]	-0.323*** [0.000]	-0.355*** [0.000]	-0.355*** [0.000]	-0.354*** [0.000]	-0.287*** [0.000]
Assets (yr1/listing)	0.283*** [0.000]	0.285*** [0.000]	0.283*** [0.000]	0.283*** [0.000]	0.285*** [0.000]	0.283*** [0.000]	0.283*** [0.000]	0.281*** [0.000]
Tax	5.086*** [0.000]	4.770*** [0.000]	4.894*** [0.000]	5.055*** [0.000]	4.571*** [0.000]	4.872*** [0.000]	4.964*** [0.000]	5.305*** [0.000]
Constant	-1.010*** [0.000]	-0.974*** [0.000]	-0.669*** [0.000]	-0.874*** [0.000]	-0.643*** [0.000]	-0.788*** [0.000]	-0.701*** [0.000]	-0.520*** [0.000]
Lambda	-0.113*** [0.005]	-0.126*** [0.003]	-0.125*** [0.003]	-0.096** [0.017]	-0.120*** [0.004]	-0.125*** [0.003]	-0.116*** [0.005]	-0.117*** [0.006]
Observations	37,164	37,164	37,164	37,164	37,164	37,164	37,164	37,039
Wald Stat	301.29	296.26	304.52	294.71	300.55	299.48	300.66	286.22
Rho	-0.07	-0.08	-0.08	-0.06	-0.07	-0.08	-0.07	-0.07

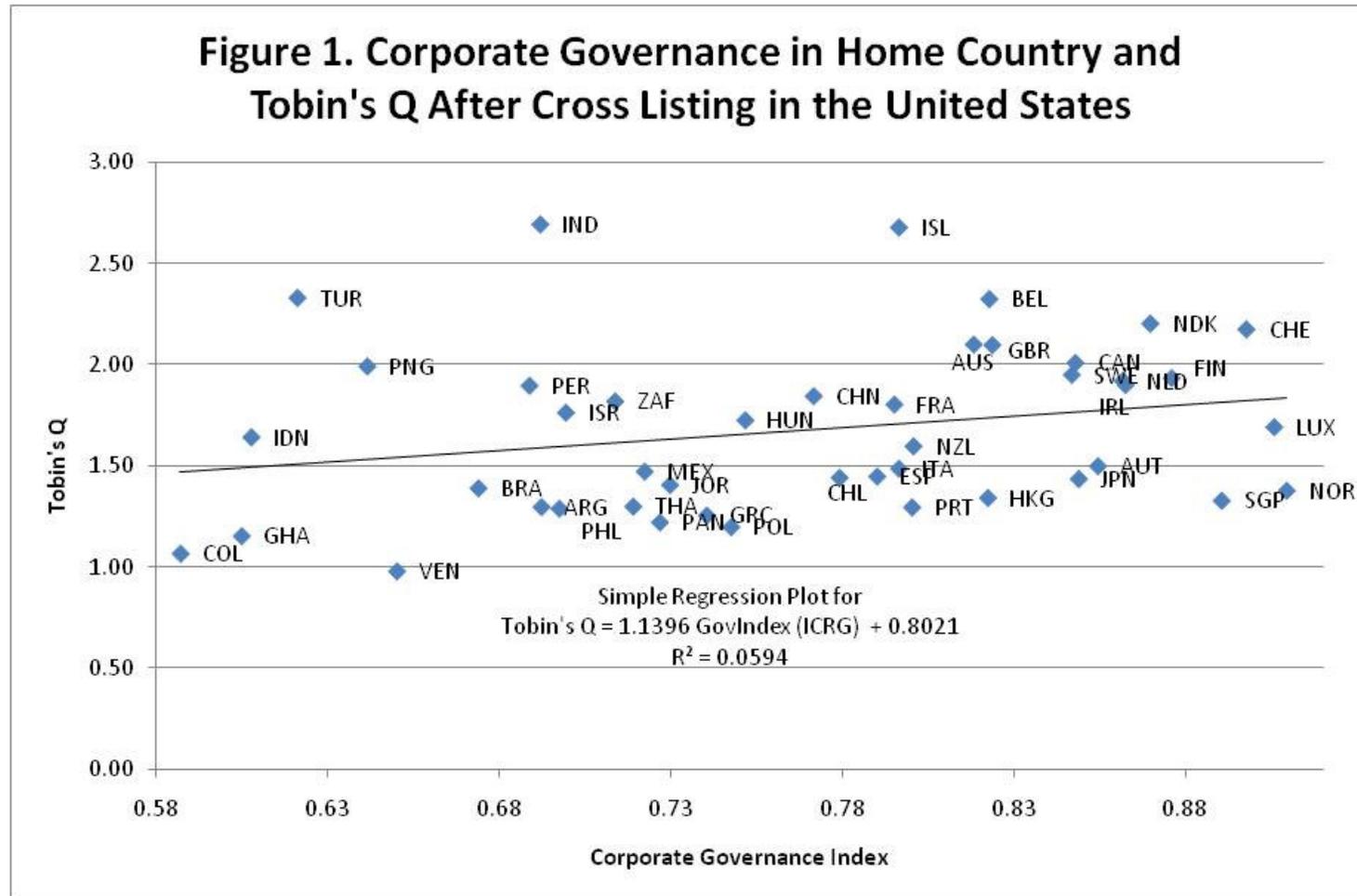


Figure 2. Corporate Governance in Home Country and BHAR After Cross Listing in the United States

