Do U.S. Firms Have the Best Corporate Governance? A Cross-Country Examination of the Relation between Corporate Governance and Shareholder Wealth

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Abstract

We compare the governance of foreign firms to the governance of similar U.S. firms. Using an index of firm governance attributes, we find that, on average, foreign firms have worse governance than matching U.S. firms. Roughly 8% of foreign firms have better governance than comparable U.S. firms. The majority of these firms are either in the U.K. or in Canada. When we define a firm's governance gap as the difference between the quality of its governance and the governance of a comparable U.S. firm, we find that the value of foreign firms increases with the governance gap. This result suggests that firms are rewarded by the markets for having better governance than their U.S. peers. It is therefore not the case that foreign firms are better off simply mimicking the governance of comparable U.S. firms. Among the individual governance attributes considered, we find that firms with board and audit committee independence are valued more. In contrast, other attributes, such as the separation of the chairman of the board and of the CEO functions, do not appear to be associated with higher shareholder wealth.

Using the well-known definition of Shleifer and Vishny (1997), governance consists of the mechanisms which insure that shareholders receive a return on their investment. Governance depends both on country-level mechanisms and firm-level mechanisms. The country-level governance mechanisms include a country's laws and the institutions that enforce the laws, its culture and norms, and the various formal and informal monitors of corporations. Firm-level or internal governance mechanisms are the mechanisms that operate within the firm. These mechanisms are heavily influenced by a firm's choice of governance attributes through its charter and policies. There is a considerable literature that compares the quality of institutions across countries. Surprisingly, while there are many studies of firm-level governance, there is no systematic comparison of firm-level governance quality between the U.S. and foreign countries. In this paper, we investigate how a foreign firm's firm-level governance compares to the firm-level governance it would have if it were a U.S. firm and whether the foreign firm's shareholders suffer or benefit when their firm's governance differs from what it would be if it were a U.S. firm.

Corporate governance differs across countries. In some countries, many view the objective of corporations to maximize the welfare of a collection of stakeholders, while in others, especially the U.K. and the U.S., it is more commonly believed that corporations should be run to maximize the wealth of shareholders. Further, it is often argued that shareholder wealth maximization can require different models of governance in different countries or regions, so shareholders may actually benefit from governance differences across countries. With this view, some firm-level governance attributes that are useful in the U.S. may not be as useful or even be detrimental in other countries because institutions, economic and financial development differ across countries. For instance, Scott and Dallas (2006) conclude that "no one system of corporate governance is the benchmark for all companies in all jurisdictions." Similarly, Gilson (2005) concludes that "within limits, different corporate governance systems may solve the same monitoring problem through different institutions." An alternative view is that there is a dominant common standard of governance. As Hansmann and Kraakman (2000) put it: "we

make the claim that no important competitors to the standard model of corporate governance remain persuasive today." If a firm's adherence to that common standard can be measured, firms that rank better according to that standard should be worth more to their shareholders.

To conduct our investigation, we need information about firm-level corporate governance attributes for a large number of firms across a large number of countries. Further, we would like measures of individual governance attributes to be computed in the same way across all these firms. Two widely known governance rankings include both U.S. and foreign firms. One of these two rankings, the Standard and Poor's ranking, focuses on disclosure. The other one, produced by Institutional Shareholder Services (ISS), uses a comprehensive inventory of governance attributes. We use the ISS governance attributes in this paper. By doing so, we can analyze 44 common governance attributes for 2,235 non-U.S. firms and 5,296 U.S. firms covering 23 developed countries. To compare governance quality across the U.S. and foreign countries, we have to create our own index making sure that the governance attributes included are relevant both for U.S. firms and foreign firms. We call it the Global Governance Index, or GOV Index.

One can reasonably disagree both with the governance attributes ISS focuses on and with the computation of the index. It is obviously true, as Jack and Suzy Welch argue, that "Good governance comes down to a lot more than a point system."[1] However, if the point system were to convey no information, we would simply find that the ranking we use is not related to firm value. A criticism advanced by some is that the index takes a U.S. view of governance. For our purpose, we would like a ranking that takes such a view since we want to evaluate whether a foreign firm's value is related to governance attributes that are important from a U.S. firm's perspective. If the U.S. governance approach were not value relevant or if the ISS index were of poor quality, we would find that the attributes recorded by ISS are not related to firm value. In that case, foreign firms would not lose value by having a worse ranking than their U.S. counterparts.

[1] "A dangerous division of labor," by Jack and Suzy Welch, Business Week, November 6, 2006. For an academic version of this argument, see Arcot and Bruno (2006).

The GOV index satisfies our requirement of providing a firm-level governance measure that is comparable across countries. Based on this index, we find that firm-level governance is worse on average in foreign countries. However, firm characteristics differ across countries as well. Since governance attributes of U.S. firms are related to firm characteristics, it could be that governance is worse in foreign countries simply because firm characteristics differ. We use a propensity score matching method and show that, when we compare the governance of foreign firms to comparable U.S. firms, their governance is typically worse. In fact, we find that 92% of the foreign firms have worse governance than comparable U.S. firms. We define the governance gap to be the difference between the governance index of a foreign firm and the governance index of a comparable U.S. firm, so that a firm with a positive governance gap has better governance than its matching U.S. firm. Consequently, only 8% of foreign firms have a positive governance gap.

Having compared the governance of foreign and U.S. firms, we turn to the question of whether the governance gap helps explain a firm's valuation. It could be that the governance differences are unrelated to firm value because the governance attributes that make a foreign firm different from a U.S. firm are not valuable in the country of the foreign firm. Alternatively, the governance attributes we use might not capture the dimensions of governance that are important for shareholder wealth maximization. In either case, there would be no relation between firm value and the governance gap. We find that the value of foreign firms, measured by Tobin's *q*, increases as their governance gap increases. In other words, foreign firms with better governance than their comparable U.S. firms are worth more. Importantly, this result means that foreign firms should not simply emulate the governance of comparable U.S. firms because it does not follow that U.S. firms have necessarily chosen the best governance mechanisms.

In addition to investigating the value relevance of differences in the governance index between foreign firms and comparable U.S. firms, we also consider the value relevance of specific governance provisions. We focus on provisions that have attracted considerable attention in the literature and among policy makers. We find that firms with an independent board, a board elected annually (instead of a staggered board), an audit committee ratified annually, and an audit committee comprised solely of

outsiders, have higher value. In contrast, firms are not valued more highly when they have a particular board size or when the functions of chairman of the board and CEO are separated.

To the extent that adopting better governance is costly for a firm's insiders, we expect firms to adopt better governance only if the associated benefits offset the costs to insiders. Better governance enables firms to access capital markets on better terms, a benefit which is not as valuable for firms in countries with poorly developed markets and for firms with poor growth opportunities. The cost of better governance for insiders is that it restricts their ability to expropriate minority shareholders, an ability that is worth more in countries with poorer institutions. Consequently, we expect firms with better growth opportunities to have better governance, firms in countries in which shareholders are poorly protected to have worse governance, and firms from countries with poorly developed capital markets to have worse governance. The quality of firm-level governance therefore depends crucially on country characteristics (e.g., Doidge, Karolyi, and Stulz (2006), and Fulghieri and Suominen (2006)). We find further evidence on the importance of country characteristics in that firms with better governance than comparable U.S. firms are not scattered randomly across the globe. Almost all firms that have better governance than comparable U.S. firms are either from Canada or from the U.K. Another way to put this is that almost no firms in civil law countries have better governance than comparable U.S. firms.

Our paper contributes to a growing literature on the value relevance of firm-level governance attributes by examining the value relevance of governance quality for U.S. versus foreign firms. In the U.S., authors have shown that firm value is related to indices of firm-level governance attributes (e.g., Gompers, Ishii, and Metrick (2003), Bebchuk and Cohen (2005), Bebchuk, Cohen, and Ferrell (2005)). Most importantly, from our perspective, Brown and Caylor (2006) show that the ISS index is value-relevant in the U.S. and Aggarwal and Williamson (2006) demonstrate that changes in the index are associated with changes in firm value in the U.S. In an international setting, Doidge, Karolyi, and Stulz (2004) show that foreign firms with ADR programs, which differ in governance from other firms from the same country, have higher value. Durnev and Kim (2005) use the CSLA corporate governance ratings and demonstrate that they are value relevant. The CLSA ratings cover 24 emerging countries and newly-

emerging countries for 2000 and provide ratings for 494 companies. Francis, Khurana, and Pereira (2005) show that disclosure-related governance attributes affect firms' cost of capital across the world. Finally, Dahya, Dimitrov, and McConnell (2006) present evidence that firm value is positively related to board independence for a sample of firms with a controlling shareholder in countries with poor investor protection.

The paper proceeds as follows. In Section II, we describe the governance data we use and the sample of firms. In Section III, we show that average governance quality in foreign countries is always worse than in the U.S. when using propensity matching but not when using country averages. We report in Section IV that firm value is positively related to the governance gap after controlling for firm characteristics. In Section V, we investigate how firms differ across the world in relation to specific governance attributes and show that board independence and audit committee independence lead to higher firm value. We investigate the robustness of our results in Section VI and conclude in Section VII.

II. Firm-level governance attributes and the governance index

In this section, we first describe the sample of firms covered by ISS. We then summarize the governance attributes used in our study and show how we aggregate these attributes to form an index.

II. A. *Sample firms*

ISS started providing the Corporate Governance Quotient (CGQ) for international companies in 2003. The CGQ rankings are a relative measure of a firm's quality of governance and indicate the quality of a firm's governance relative to firms in its industry or within an index in which the firm is included. For example, a CGQ index ranking of 97 implies that the firm's governance is better than that of 97% of the firms in the applicable index or industry. The international coverage includes non-U.S. firms that are part of the following indices: 1) the MSCI EAFE index which covers 1000 stocks in 21 developed countries outside North America and captures 85% of the total market capitalization for these countries; 2) the FTSE All Share Index which consists of the FTSE 100, FTSE 250 and FTSE SmallCap indices and

captures 98% of the U.K. market; 3) the FTSE All World Developed index which includes the largest firms in the developed markets; and 4) the S&P/TSX index which represents 71% of the market capitalization of the Toronto Stock Exchange. There is considerable overlap among the indices. In this paper, we focus exclusively on the 2005 sample because it includes more firms and has fewer missing attributes for individual firms than the earlier samples. The three countries with the largest number of firms covered are Japan (589), U.K. (530) and Canada (168). The three countries with the smallest number of firms covered are Portugal (14), Ireland (16) and New Zealand (18).

ISS started providing CGQ for U.S. firms in 2002. The coverage was substantially expanded in 2003. Firms are covered if they are included in any of the following indices: the Standard and Poor's 500 index, the Standard and Poor's SmallCap 600 index, and the Russell 3000 index. The Russell 3000 index captures 98% of the market capitalization of the U.S. markets. In addition, a number of firms are covered as long as they file on EDGAR. ISS excludes firms that have not filed a proxy in the last 18 months. In order to be included, a company has to both be a U.S. company and also be incorporated in a U.S. state. This means that companies like Tyco and Ingersoll-Rand that are part of the S&P 500 are not included because they are incorporated in Bermuda. In 2005, on average more than 5,296 U.S. companies are covered. The U.S. sample is described in greater detail in Aggarwal and Williamson (2005).

II. B. *Governance attributes*

ISS compiles 64 governance attributes for each U.S. firm and 55 attributes for foreign firms. How a firm fares for each attribute is determined by an examination of the firm's regulatory filings, annual reports, and website. Firms do not pay to get rated but can access their ratings and check for accuracy. Firms can only change their ratings by making and publicly disclosing changes to their governance structure. For each attribute, ISS has a minimally acceptable level of governance and it evaluates whether a firm meets that threshold. We exclude 11 of the 55 attributes from our analysis because either none of the firms satisfied minimally accepted criteria for these attributes or ISS replaced them with some other

attributes for the U.S. sample in 2005. Our GOV index therefore includes 44 attributes that are common for both U.S. and foreign firms.

The 44 attributes we select cover four broad sub-categories: 1) *Board* (25 attributes), 2) *Audit* (three attributes), 3) *Anti-takeover* (six attributes), and 4) *Compensation and Ownership* (10 attributes). *Board* attributes attempt to capture the aspects of the functioning of the board of directors that relate to board independence, composition of committees, size, transparency, and how work is conducted; *Audit* includes questions regarding the independence of the audit committee and the role of auditors; *Anti-takeover* provisions are from the firm's charter and bylaws and refer to dual-class structure, role of shareholders, poison pill and blank check preferred; and *Compensation and Ownership* deals with executive and director compensation on issues related to options, stock ownership and loans, and how these types of compensation are determined and monitored.

Table 1 provides a description of the threshold used by ISS for each of the 44 governance attributes for the full sample of non-U.S. firms for a firm to have an acceptable level of governance for that attribute. The governance attributes are arranged by sub-categories. There are several minimally accepted standards that are met by most firms. For example, seven of the 25 board-related criteria are met by more than 80 percent of the non-U.S. firms in our sample. These standards include: the CEO serves on the board of two or fewer companies, board size is greater than five but less than 16, the CEO is not listed as having a related-party transaction, the chairman and the CEO are separated or there is a lead director, shareholders vote on directors selected to fill vacancies, the board typically cannot amend bylaws without shareholder approval, and the board does not ignore shareholder proposals. For the three audit-related attributes, 83.9% of the firms in our sample pay consulting fees to auditors that are lower than audit fees; for 35.3% of the firms the audit committee is comprised solely of independent directors; and for 58.4% of the firms auditors are ratified at the most recent meeting.

More than 90% of the firms meet four of the six anti-takeover provisions: a single class of common stock, shareholders can call special meetings, and the company either has no poison pill or has a poison pill that was approved by shareholders, the company is not authorized to issue blank check preferred.

Only 7% of the firms require a simple majority to approve mergers implying that the remaining 93% of firms require a supermajority. Shareholders can act by written consent in 11.5% of our sample firms. More than half the firms meet compensation and ownership attributes on four of the ten attributes: no interlocks among compensation committee members (98.9%), all stock-incentive plans adopted with shareholder approval (92.8%), all directors with more than one year of service own stock (55.4%), and repricing is prohibited (54%).

II. C. *Corporate governance index construction*

We use the 44 individual attributes to create a composite governance index, GOV_{44}, for each company. GOV_{44} assigns a value of one to a governance attribute if the company meets minimally acceptable standard on that attribute and zero otherwise. It is common in the literature to use additive indices (e.g., Gompers, Ishii, and Metrick (2003), Bebchuk, Cohen and Ferrell (2004), Bebchuk and Cohen (2005)). Brown and Caylor (2006) use this approach to construct a governance index based on ISS governance attributes for the U.S. We express our index as a percentage. If a firm satisfies all 44 governance attributes, its GOV_{44} index would equal 100%. If an attribute is missing then the attribute is eliminated and the value represents the percentage of non-missing attributes that the firm satisfies.

We also consider the individual governance attributes that have received the most attention in the academic literature and from observers. Admittedly, these attributes are arbitrary. We also construct an alternative index that is focused on these seven individual governance attributes, resulting in the GOV_7 index. The seven attributes include, *Board Independence*: board is controlled by more than 50% independent outside directors; *Board Size*: the board has more than five members but less than 16; *Chairman/CEO Separation*: chairman and CEO are separated or there is a lead director; *Board Structure*: annually elected board (no staggered board); *Audit Committee Independence*: audit committee comprised solely of independent outsiders; *Auditor Ratification*: auditors ratified at most recent annual meeting; and *Stock Classes*: only one class of common stock (no dual class).

III. Cross-country comparisons of firm-level governance

We first describe the sample of firms for which the firm-level corporate attributes are available. We then investigate how governance differs across countries focusing on a comparison between the U.S. and foreign firms.

III. A. *Characteristics of sample firms*

Table 2 provides descriptive statistics (medians) on a number of firm-specific variables by country including market capitalization (*Mkt. Cap.*) in millions of U.S. dollars, total assets (*Assets*) in millions of U.S. dollars, whether a firm is cross-listed in the U.S. (ADR is a dummy variable that takes a value of one if the firm is cross-listed in the U.S.), and Tobin's *q*. Tobin's *q* is defined as ((total assets + market value of equity – total common equity – deferred taxes)/ total assets). All firm-level data are obtained from Worldscope and Datastream. We use stock prices at the end of 2004 and 2004 accounting data, taking the perspective that the governance attributes published by ISS in 2005 were in effect in 2004.

The median market capitalization and total assets are $1,767 million and $2,561 million respectively for the non-U.S. sample. There is considerable variation in the size of the firms in a country based on these two size proxies. Firms in Greece, New Zealand, the U.K., and the U.S. tend to be the smallest. However, U.K. and U.S. have low median size values because the coverage for these two countries is much broader and, therefore, captures a much more diverse set of firms compared to other countries where mostly large firms are covered. On average, French and Swedish firms are the largest based on market capitalization; French and Italian firms are the largest based on total assets. The median *q* for the non-U.S. sample ranges from a low of 1.10 for Italy to a high of 1.49 for both Norway and Sweden and 1.51 for U.K. The U.S. has the largest median *q* at 1.52. In our sample, more than half the firms from Austria, Canada and Ireland are cross-listed. Our sample covers more than 70% of the Worldscope market capitalization for all countries except Hong Kong (60%) and the Netherlands (52%).

III. B. *Differences in governance across countries: Comparison of country averages*

The average values of GOV_{44} for non-U.S. firms and for U.S. firms are 49% and 61%, respectively, as seen in Table 3. Figure 1 and Table 3 show that Canada (69%), the U.S. (61%), Finland (57%) and the U.K. (56%) are the countries with the highest average governance index. Countries with the lowest average governance index are Belgium (39%), Portugal (39%), Italy (41%) and Japan (42%). These results indicate that there is a wide degree of variation in the average value of GOV_{44} across countries. Every country except Canada has a lower average index than the U.S. and the difference is statistically significant at the 1% level.

On average, non-U.S. companies have a score of 58% with the GOV_7 index. Countries with the highest scores are Canada (92%), Finland (81%), Switzerland (75%) and the U.S. (73%). The lowest scores are for France (36%), Japan (37%), Italy (42%) and Portugal (43%). Based on the broader measure, GOV_{44}, only Canada had a score higher than the U.S. but based on the narrower measure, GOV_7, four countries have a score that is equal to or higher than the U.S. Japan, Portugal and Italy are among the lowest scoring countries based on both measures of governance.

III. C. *Differences in governance across countries: Comparison using matched pairs*

There is an obvious problem of interpretation when one compares country averages of the GOV index: we are comparing governance for firms with different characteristics. As shown in Table 2, median firm size differs widely across countries. Differences in firm size can result from differences in country-level governance attributes. Perhaps more importantly, firm-level governance attributes have costs and benefits. If costs of better firm-level governance have a fixed component but benefits are proportional to firm size, one would expect larger firms to have better firm-level governance. In fact, in the U.S. there is a strong correlation between GOV and firm size measured by assets (approximately, 0.50). Consequently, by comparing GOV across countries with different types of firms, we may be comparing apples to oranges.

To make our comparison of the governance of U.S. firms with the governance of foreign firms more precise, we use two matching methods. The first method matches a foreign firm with a U.S. firm that is closest in asset size and in the same industry. The second method matches based on industry and closest propensity scores (p-scores). Drucker and Puri (2005) argue that this econometric method is superior because this matching employs fewer restrictions. Rosenbaum and Rubin (1983), Rubin (1997), and Conniffe, Gash, and O'Connell (2000), among others, have shown this approach to be more accurate. In order to implement this method, we calculate each firm's propensity score, which is simply equal to the probability that a firm with given characteristics is a foreign firm. This probability is calculated by using observable firm characteristics of both U.S. and non-U.S. firms, namely log of total assets (*SIZE*), two-year average sales growth (*SGROWTH*), two-year average research and development expense to sales (*R&D/SALES*), cash to assets (*CASH/ASSETS*), capital expenditures to assets (*CAPEX/ASSETS*), property, plant and equipment to sales (*PPE/SALES*), earnings before interest and taxes to sales (*EBIT/SALES)*, total debt to assets (*DEBT/ASSETS)* as well as industry dummies, in a probit regression.

Of the 2,138 foreign firms that could be matched to U.S. counterparts based on industry and p-scores, 490 firms that operate in regulated industries (specifically, in Utilities, Transportation, Telecommunication Service, Insurance, Energy, and Banking) are excluded from the analysis.

Table 4 also shows the average difference between the GOV_{44} index of foreign firms and their matching U.S. counterparts for both matching methods. It is immediately clear that comparing country averages leads to misleading results. Strikingly, when we use propensity matching, all countries have a worse average than the average of the matching firms. In other words, governance in each foreign country is significantly worse than the governance of comparable U.S. firms. Further, when we match firms, the governance gap of foreign firms is worse than when we compare averages of the GOV_{44} index across countries. Part of the reason is that the U.S. sample contains a large number of smaller firms and smaller firms typically have worse governance when measured by an index like GOV_{44}.

We show in Table 4 the number of firms in each country that have worse governance than their matching U.S. firm, the number of firms in each country that have better governance than their matching

U.S. firm, and, finally, the percentage of firms in a country that have better governance than their matching U.S. firm based on the propensity score method. Across the world, 92% of firms have worse governance than their matching U.S. firm. Our sample has 22 non-U.S. countries. Only 12 countries have at least one firm that has better governance than its matching U.S. firm. Stunningly, only two countries have more than five firms with better governance than comparable U.S. firms. These countries are Canada and the U.K. In Canada, 38% of the firms have better governance than similar U.S. firms. In the U.K., 15% do so. The other countries where 10% or more of the firms have better governance than their matching U.S. firms are Finland, the Netherlands, and Switzerland.

Though we do not report the results in a table, we also examined governance differences using the GOV_7 when foreign firms are matched to U.S. firms using propensity scores. We find that firms from Canada and Finland have better governance on average than comparable U.S. firms.

III. D. *Characteristics of foreign firms with better governance than their U.S. matches*

What makes it likely that a foreign firm will have better governance than its matching U.S. firm? Doidge, Karolyi, and Stulz (2006) show theoretically and empirically that country characteristics are an important determinant of firm-level governance.[2] The reason for this finding is that the benefits and costs of good governance depend on country characteristics. Firms benefit from good governance because it allows them to access external markets on better terms, but that benefit is not of much value in countries with weak and inefficient capital markets. Good governance is also expected to be cheaper to put in place in countries with better institutions. We find further evidence on the importance of country characteristics: 79% of the firms that have better governance than their U.S. counterparts are in less than 10% of the countries in our sample.

Table 5 compares firm and country characteristics for firms with a positive governance gap with the same characteristics for firms with a negative governance gap. In this table, we require information to

[2] See also Fulghieri and Suominen (2006) for a theoretical model of the determinants of firm-level governance in which both country and industry characteristics are important.

compute Tobin's *q*, which reduces the sample size slightly. The percentage of firms with a positive gap is still 8%. The first two columns of Table 5 report the medians for the firms with a negative governance gap, i.e., firms with worse governance than their U.S. counterpart, and for the firms with a positive governance gap. Similar to previous work in the corporate governance literature (e.g., Gompers, Ishii, and Metrick (2003), Doidge, Karolyi, and Stulz (2004), and Durnev and Kim (2005)), we use Tobin's *q* as the measure of firm value. It has the interpretation of the value created in excess of the cost of the assets. The prediction is that firms with better governance create more wealth for shareholders. We find that the *q* of firms with better governance than their matching U.S. firms is significantly greater than the *q* of firms with worse governance. In the next section, we examine this valuation difference in greater detail.

Strikingly, the firms with better governance have a market capitalization and total assets that are roughly a third smaller than the firms with worse governance. Sales growth, capital expenditures, cash to assets, and earnings are not significantly different for the two groups. R&D to sales, and PPE to sales are higher for the firms with worse governance. Finally, firms with better governance have more foreign sales, more debt, greater insider ownership, and are more likely to be cross-listed.

We also investigate how country characteristics differ between firms with a positive gap and firms with a negative gap. The firms with better governance than their U.S. counterparts come from countries with greater stock market capitalization to GDP, with common law, with a better judicial system, and with better laws and regulations to curb self-dealing by insiders. For comparison with Durnev and Kim (2005), we use the product of the index of rule of law and of the anti-director index of La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998) (as revised in Djankov, La Porta, Lopes-de-Silanes, and Shleifer (2006)) as a measure of the quality of the judicial system. We also use the anti-self dealing index from Djankov et al. (2006). Firms with a positive governance gap come from countries where these variables have higher values.

We report in Table 5 estimates of probit regressions in which the dependent variable takes a value of one if a foreign firm has better governance than its matching U.S. counterpart and equals zero otherwise. We find that in these regressions the measures of investor protection are significant predictors of a firm's

governance relative to its U.S. matching firm. The only other variables that are significant in all regressions are a firm's assets and leverage.

IV. Firm value and governance

We have now seen that the typical foreign firm has worse governance than a comparable U.S. firm, but some foreign firms have better governance than comparable U.S. firms. We showed that firms with better governance are valued more, in the sense that they have a higher Tobin's *q*. However, a plausible explanation for the valuation difference could be that firms with better governance have characteristics that make them more valuable. It is therefore necessary to examine the relation between firm value and governance in a regression where we control for other firm characteristics.

Tobin's *q* can differ across firms because of industry and country characteristics rather than because of differences in firm characteristics. To account for industry and country sources of heterogeneity, we use industry and country fixed-effects. We control for firm characteristics generally used in the literature. We control for firm size as proxied by log of total assets (*SIZE*) in all the models. We also estimate models that control for two-year average sales growth (*SGROWTH*), two-year average research and development expense to sales (*R&D/SALES*), two-year average foreign sales to total sales (*FOREIGN SALES/SALES*), cash to assets (*CASH/ASSETS*), capital expenditures to assets (*CAPEX/ASSETS*), property, plant and equipment to sales (*PPE/SALES*), earnings before interest and taxes to sales (*EBIT/SALES)*, total debt to assets (*DEBT/ASSETS),* and percentage of shares closely held *(CLOSELY HELD)*. In separate regressions, we also include the ADR dummy. Cross-listing enables a firm to have better governance by borrowing external governance attributes from the U.S. (e.g., Stulz (1999)). It is well-known that there is a positive relation between firm value and whether a firm has adopted an ADR program (Doidge, Karolyi, and Stulz (2004)). We therefore want to make sure that firm-level governance plays a distinct role. Similar to prior work we winsorize extreme percentiles (1^{st} and 99^{th}) of *q*, *SGROWTH, R&D/SALES*, and *FOREIGN SALES/SALES*. We use an estimator that allows for clustering of the residuals at the country level.

Regression (1) of Table 6 shows estimates when we regress Tobin's *q* on the governance index a firm would have if it were a U.S. firm, GOV_{44} *_US*, the governance index gap, *GOV GAP*, and on firm size measured by total assets, *SIZE*. Tobin's *q* is negatively related to firm size. A firm's Tobin's *q* is positively related to GOV_{44} *_US*. If a foreign firm's matching U.S. firm has a governance index 10 percentage points higher (in the regression, the governance index is expressed in decimals, so a change of 0.10 in the governance index), the foreign firm's Tobin's *q* is 0.11 higher. A firm's value is positively related to the governance gap as a firm that has better governance than its matching U.S. firm is valued more. In this regression, however, we cannot reject that the coefficient on GOV_{44} *_US* is equal to the coefficient on *GOV GAP* at the 10% level. Consequently, a specification with just the GOV_{44} would be appropriate.

In Regression (2), we split the governance gap between a positive governance gap – i.e., the firm's governance index is better than the governance index of its matching U.S. firm – and a negative governance gap. Strikingly, there is an asymmetry. An F-test testing the equality of the coefficients on *NEGATIVE GAP* and *POSITIVE GAP* rejects the hypothesis of equality at the 10% level. A foreign firm gains much more from having better governance than the U.S. matching firm than it loses by having worse governance. If a foreign firm's governance index is higher by 10 percentage points than the index of its matching U.S. firm, its Tobin's *q* is higher by 0.33. In contrast, if the foreign firm's governance index is lower by 10 percentage points, its Tobin's *q* is lower by 0.11.

Regressions (1) and (2) only control for size. The other four regressions in Table 6 control for a wide range of firm characteristics. Controlling for all these firm attributes reduces the coefficient on GOV_{44} *_US*, but has no meaningful impact on the governance gap coefficients. It is therefore not surprising that an F-test rejects the equality of GOV_{44} *_US* and *GOV GAP* at the 10% level. It follows that a regression with control variables relating Tobin's *q* to GOV_{44} instead of allowing for different coefficients on GOV_{44} *_US* and *GOV GAP* would be misspecified. When we use *NEGATIVE GAP* and *POSITIVE GAP* instead of *GOV GAP*, we find that the asymmetry noted in regression (2) persists. The coefficients on the control variables are generally as expected. Firms with more R&D, more capital expenditures, and greater

earnings have a higher Tobin's *q*. One would expect that firms with greater sales growth would have a higher Tobin's *q* since sales growth is a measure of growth opportunities, but sales growth is only significant in Regression (6). The coefficient on the fraction of the firm's shares held by blockholders is not significant in regressions (3) and (4) but significant in regressions (5) and (6). As expected from Doidge, Karolyi, and Stulz (2004), cross-listed firms have a higher Tobin's *q*.

The regression estimates show that the shareholders of foreign firms with better governance than their U.S. counterparts are better off. Such a result raises the question of why all firms do not choose to have better governance than their U.S. counterpart. Existing models of firm governance provide a straightforward explanation for why so few firms have better governance than their matching U.S. firms.[3] In most countries, firms are controlled by large shareholders who derive private benefits from control. Consequently, the controlling shareholders get to decide whether the firm has better or worse governance than its matching U.S. firm. By improving firm-level governance, the controlling shareholders lose private benefits. However, they also make it possible for the firm to raise funds on better terms. Not surprisingly, we would expect firms to embrace better governance in countries in which private benefits are low since in that case, the controlling shareholder gives up less by selecting better governance for the firm. We saw in Section IV that firms in countries with higher quality investor protection are more likely to have better governance than their U.S. matching firm. Countries in which private benefits are high generally have less well-developed capital markets and poor institutions. As a result, as argued by Doidge, Karolyi, and Stulz (2006), good governance is more expensive to implement in such countries and benefits firms less. Firms in countries in which private benefits are high are therefore less likely to have good governance.

One might argue that our estimation procedure does not take into account that firms choose their level of governance. When we re-estimate the regressions in Table 5 using two-stage least squares where the first stage equation is an equation for *GOV GAP*, we find similar results. Our first-stage regression uses as independent variables firm size, sales growth, the ADR dummy, shares closely held, a dummy variable if

[3] See Doidge, Karolyi, and Stulz (2006) for a model and references.

the country is a common law country, log GDP per capita, the ratio of the country's market cap to GDP, and industry dummy variables. The only firm characteristic that is significant is the fraction of shares closely held. That variable has a negative significant coefficient as expected from Doidge, Karolyi, Lins, Miller, and Stulz (2006). Not surprisingly, common law has a positive significant coefficient. Both the log GDP per capita and the ratio of the country's market cap to GDP have negative significant coefficients. In the second stage, we regress *q* on the firm-specific variables, country dummy variables, industry dummy variables, and *GOV GAP*. The coefficient on *GOV GAP* is 1.069 with a t-statistic of 3.34.

There is an alternative interpretation of the regression results. One could argue that the governance gap simply reflects firm characteristics not included in the regression. Hence, firms with a negative governance gap are not worth less because of that gap but they are worth less because of an omitted determinant of firm value. In a sense, this interpretation is necessarily correct. If the controlling shareholder finds that it is worth it for the firm to have good governance, then the omitted variable is whatever explains why the controlling shareholder concludes that better governance makes him better off. Strikingly, however, the controlling shareholder is much more likely to decide that the firm should have better governance than its U.S. counterpart in Canada and the U.K. It seems unreasonable to argue that unobserved firm characteristics that make it worthwhile for firms to have better governance than their U.S. counterparts are almost exclusively observed in these two countries. A more reasonable interpretation is that good governance is more valuable in developed countries with good institutions. In that sense, U.S. firms have better governance because governance pays better in the U.S.

V. Individual Governance Attributes

So far, we have focused on the governance index and the relation between firm value and that index. When academics and other observers focus on corporate governance, they do not pay close attention to 44 attributes. Instead, they tend to focus on a handful of attributes that draw considerable attention. As discussed in Section II, we select seven such attributes and compute an index of these attributes which we call GOV_7. Though we do not report the regression here, we estimate the regression in the last column of

Table 6 with the GOV_7 index instead of the GOV_{44} index. We find a significant relation between firm value and the difference between a firm's GOV_7 index and the GOV_7 index of its matching U.S. firm. However, the adjusted R-square of the regression is slightly less, the GOV_7 index for the matching U.S. firm is not significant, and the coefficients on the positive gap and the negative gap are smaller. Consequently, the GOV_7 index is value-relevant, but the broader index, GOV_{44}, explains slightly more of the variation in firm value.

The GOV_7 index includes a handful of governance attributes, which should be considered individually to assess whether a firm's differences from its U.S. matching firm are related to value. For that purpose, we first report in Table 7 the country averages for the governance attributes of the GOV_7 index. We see in that table that U.S. firms rate highly on board independence and audit committee independence. In contrast, as expected, U.S. firms tend to rate poorly compared to most countries on the separation of the functions of the chairman of the board and of the CEO. Though most countries have a lower proportion of firms without a staggered board than the U.S., four countries (Canada, Denmark, Finland, and Sweden) have a much higher proportion of such firms than the U.S. More than half the countries have a higher proportion of firms than the U.S. meeting the minimum satisfactory threshold for board size. Finally, fifteen countries have a higher percentage of firms with one class of stock than the U.S.

Are these governance attributes related to firm value? Or, to put it differently and to use an example, are the foreign firms that separate the functions of chairman of the board and of CEO worth more? To examine this issue, we re-estimate the last regression of Table 6 in two different ways. First, we re-estimate the regression substituting individual governance attributes for GOV_{44}. Second, we re-estimate the regression including all the individual governance attributes. As in Table 6, we use the governance attribute of the matching firm, the positive governance gap, and the negative governance gap.

Panel A of Table 8 shows the regression estimates when we introduce one individual attribute at a time. We see that separation of the functions of chairman of the board and CEO is not related to firm value. Neither are board size and stock classes. Board independence is significantly related to firm value. A firm whose board does not meet the board independence requirement is worth less when its matching

U.S. firm meets that requirement. Our evidence is related to the evidence of Dahya, Dimitrov, and McConnell (2006). They find that board independence is positively related to firm value in the countries with poor investor protection when firms have a controlling shareholder. However, their sample includes less developed countries in contrast to ours.[4] We find that board independence matters for developed countries. The strength of the board independence result is surprising in light of the U.S. evidence which fails to find a strong relation between board independence and firm value.[5] Not having a staggered board when the matching U.S. firm has a staggered board is also associated with higher value. Bebchuk and Cohen (2005) document the costs associated with entrenched boards. We also find that audit committee independence is associated with higher value. Finally, not having annual audit ratification when the matching U.S. firm has it is costly, but having annual audit ratification when the matching U.S. firm does not does not lead to higher firm value. Panel B of Table 8 shows the estimates for the coefficients of the individual governance attributes when all the attributes are included as explanatory variables. The only difference worth noting is that board independence is no longer significant. This may be because that attribute is highly correlated with other attributes included in the regression. Nevertheless, the other attributes that were individually significant are still significant here.

VI. Alternative specifications

In this Section, we investigate the robustness of the results presented so far. We present some of the results of that investigation in Table 9.

Our analysis has focused on comparing the governance of foreign firms to the governance of matching U.S. firms. An alternative approach would be to compare the governance/value relation for foreign and U.S. firms. In columns (1) and (2), we report regression (6) of Table 6 where GOV_{44} is the governance variable. Since the regression controls for firm characteristics, the coefficient of GOV_{44} is a measure of the value of governance given firm characteristics. We see that the coefficient of GOV_{44} is

[4] Our sample differs from theirs also because we do not limit firms to those with a controlling shareholder and because we have many more firms than they do.
[5] See Bhagat and Black (2002).

positive and significant in both regressions. Further, the coefficient is roughly the same for foreign and U.S. firms.

A concern is that only selected firms have a GOV index. We investigate (but do not report regression estimates) whether the significance of the GOV index could be accounted for by a selection bias. Using all firms for which data is available on Worldscope to estimate regression (1), we estimate a probit regression for which the dependent variable is one if the firm has a GOV index. The explanatory variables are a firm's asset size and its number of employees. Using Heckman's two-stage approach, we find that the GOV index is still significant when we account for selection.

In regression (3), we use an alternative matching approach which does not rely on the propensity score. For each foreign firm, we choose as a matching firm the U.S. firm in the same industry that has the closest amount of assets. We see that the results are similar to the results obtained when we use propensity matching, though the coefficient on the governance gap when it is positive is markedly smaller.

A legitimate concern is whether our results depend on the inclusion of some countries with a large number of firms in our sample. In particular, the three countries with the largest number of firms, in descending order, are Japan, the U.K., and Canada. We estimate our regressions removing one of these countries at a time (in columns (4)-(6) of Panel A in Table 9). It is immediately clear that removing one of these countries has no impact on our conclusions.

So far, our regressions have not controlled for a valuation benchmark. We would expect a firm to be worth more if it is in an industry that has a higher q. We add as an explanatory variable the median q of the firm's industry globally in column (7) of Panel A. We find that our results are essentially the same with that added variable.

Earlier literature (for instance, Durnev and Kim (2005)) controls explicitly for country characteristics rather than using fixed effects. We investigate here whether our results are sensitive to how we control for country characteristics. In the next three regressions, we remove the country fixed effects. To control for country characteristics, we use a country's GDP per capita, the ratio of stock market capitalization to

GDP, and a proxy for investor protection. The proxies for investor protection are a dummy variable that takes value one for a common law country, the variable used by Durnev and Kim (2005), namely the product of the rule of law index and the anti-director index, and finally the Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2006) anti-self-dealing index.[6] None of the proxies for investor protection are significant. Surprisingly, GDP per capita has a significant negative coefficient. The coefficient on the positive gap is positive and significant in all regressions. However, the other coefficients become insignificant. Part of the explanation is that there is a strong correlation between the governance index and investor protection. The correlation between common law and a firm's governance index is the highest correlation at 0.51.

VII. Conclusion

In this paper, we compare the governance of foreign firms to the governance of comparable U.S. firms. We call the difference in governance between a foreign firm and a comparable U.S. firm the governance gap. For the typical foreign firm, the governance gap is negative in that the foreign firm's governance is worse than the governance of its matching U.S. firm. We then examine the relation between firm value and the governance gap.

We find that it is quite important, when comparing the governance of foreign firms and U.S. firms, to do so by comparing apples to apples – namely firms with similar characteristics. When one does not do so, one might erroneously conclude, for instance, that Canadian firms have better governance than U.S. firms. With an apples-to-apples comparison, firms in each foreign country have, on average, worse governance than comparable U.S. firms.

The governance gap is strongly related to firm value. A foreign firm's value directly increases with the governance gap, but there is an asymmetry in the relation between firm value and the governance gap. Firms gain more by having better governance than their matching U.S. firm than they lose by having

[6] Note that Durnev and Kim (2005) use the anti-director index of La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998). We use the updated index from Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2006).

worse governance. Most of the firms with better governance than their matching U.S. firm are Canadian and British firms. Country characteristics therefore play an extremely important role in explaining why some firms have better governance than U.S. firms. In Canada and the U.K., insiders give up fewer private benefits by supporting better governance than they do in countries with weaker investor protection. Unfortunately, in many countries, because of poor institutions, better governance is often not advantageous for controlling shareholders even though, as we have seen minority shareholders benefit from better governance.

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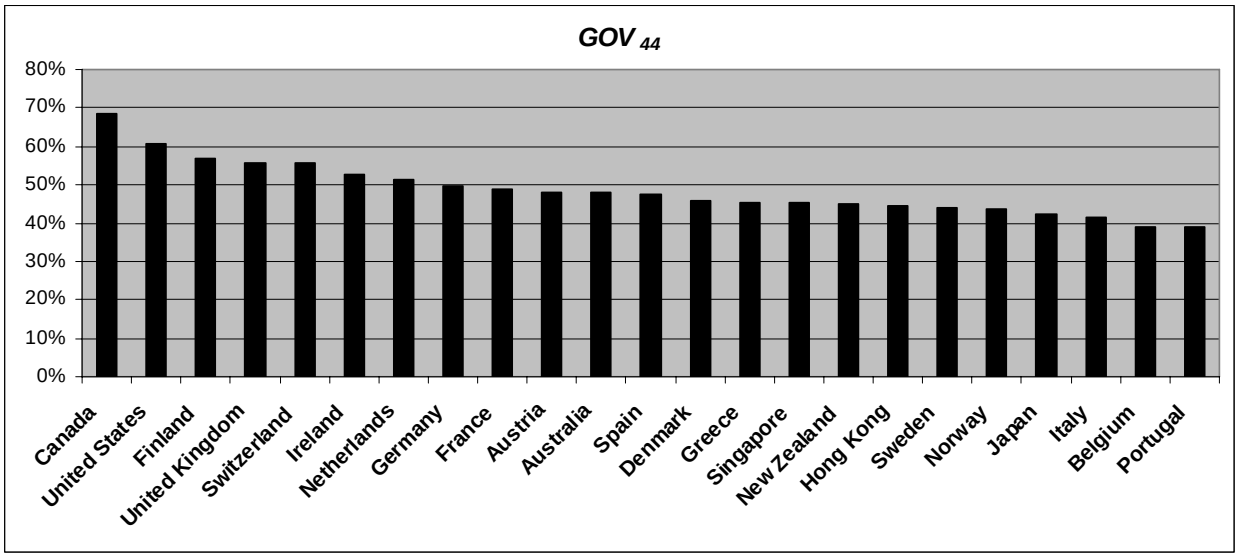
Figure 1
Governance Scores by Country

Values on the vertical axis represent the mean of the firm level governance index for a particular country. GOV_{44} (GOV_7) is the percentage of 44 (7) governance attributes that a firm meets based on the attributes that have non-missing data. GOV_7 is constructed by using the following seven attributes: *Board Independence*: board is controlled by more than 50% independent outside directors; *Board Size*: board size is at greater than five but less than 16; *Chairman/CEO Separation*: chairman and CEO are separated or there is a lead director; *Board Structure*: annually elected board (no staggered board); *Audit Committee Independence*: audit committee comprised solely of independent outsiders; *Auditor Ratification*: auditors ratified at most recent annual meeting; and *Stock Classes*: only one class of common stock. Mean governance scores are reported for each of the 23 countries as of 2005. The information is based on 2,234 non-U.S. firms and 5,296 U.S. firms.



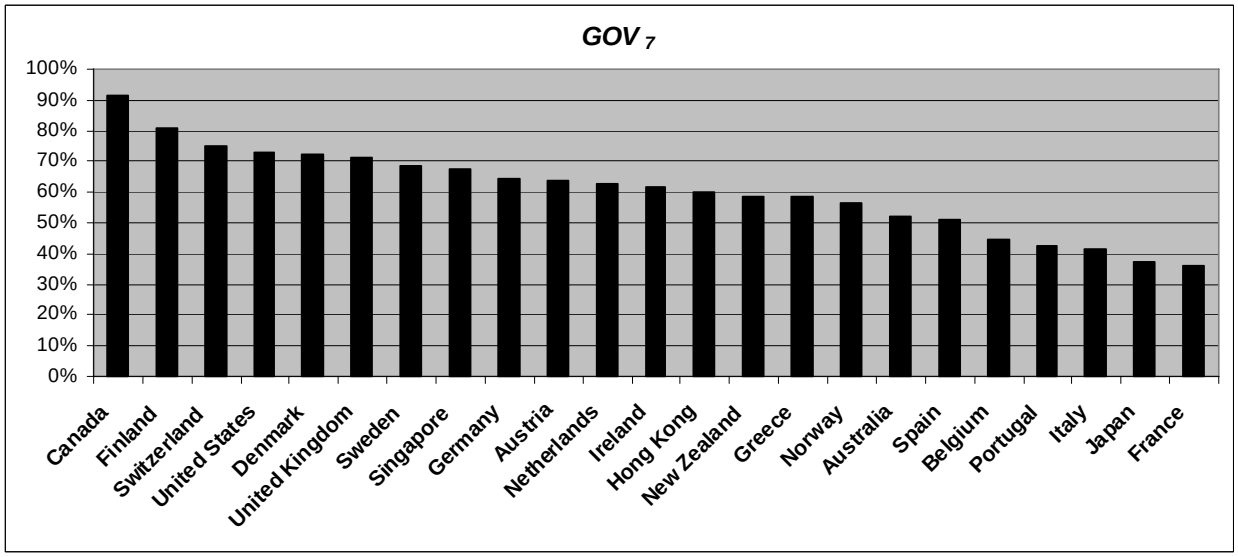


Table 1
Foreign Firms Satisfying Minimally Acceptable Governance Standards

The 44 governance attributes in the GOV_{44} index are divided into four sub-categories: *Board, Audit, Anti-takeover*, and *Compensation & Ownership*. The seven individual attributes included in the GOV_7 index are indicated by an asterisk. For each attribute we report the percentage of firms that satisfy the minimally acceptable governance standard in 2005. The sample consists of 2,234 foreign firms.

	Minimally Acceptable Corporate Governance Standard	% of Foreign Firms Meeting Criterion
	BOARD	
1.	All directors attended 75% of board meetings or had a valid excuse	77.8%
2.	CEO serves on the boards of two or fewer public companies	91.7%
3.	Board is controlled by more than 50% independent outside directors*	32.6%
4.	Board size is at greater than five but less than 16*	84.3%
5.	CEO is not listed as having a related-party transaction	93.5%
6.	No former CEO on the board	75.1%
7.	Compensation committee comprised solely of independent outsiders	28.9%
8.	Chairman and CEO are separated or there is a lead director*	89.8%
9.	Nominating committee comprised solely of independent outsiders	15.8%
10.	Governance committee exists and met in the past year	14.0%
11.	Shareholders vote on directors selected to fill vacancies	83.5%
12.	Governance guidelines are publicly disclosed	53.9%
13.	Annually elected board (no staggered board)*	24.9%
14.	Policy exists on outside directorships (four or fewer boards is the limit)	4.0%
15.	Shareholders have cumulative voting rights	1.6%
16.	Shareholder approval is required to increase/decrease board size	56.8%
17.	Majority vote requirement to amend charter/bylaws (not supermajority)	3.5%
18.	Board has the express authority to hire its own advisors	44.7%
19.	Performance of the board is reviewed regularly	44.7%
20.	Board approved succession plan in place for the CEO	21.5%
21.	Outside directors meet without CEO and disclose number of times met	10.1%
22.	Directors are required to submit resignation upon a change in job	1.9%
23.	Board cannot amend bylaws without shareholder approval or can only do so under limited circumstances	98.1%
24.	Does not ignore shareholder proposal	100.0%
25.	Qualifies for proxy contest defenses combination points	0.2%
	AUDIT	
26.	Consulting fees paid to auditors are less than audit fees paid to auditors	83.9%
27.	Audit committee comprised solely of independent outsiders*	35.3%
28.	Auditors ratified at most recent annual meeting*	58.4%
	ANTI-TAKEOVER	
29.	Single class, common*	93.2%
30.	Majority vote requirement to approve mergers (not supermajority)	7.0%
31.	Shareholders may call special meetings	99.7%
32.	Shareholder may act by written consent	11.5%
33.	Company either has no poison pill or a pill that was shareholder approved	98.6%
34.	Company is not authorized to issue blank check preferred	95.0%

	COMPENSATION & OWNERSHIP	
35.	Directors are subject to stock ownership requirements	12.2%
36.	Executives are subject to stock ownership guidelines	15.0%
37.	No interlocks among compensation committee members	98.9%
38.	Directors receive all or a portion of their fees in stock	17.5%
39.	All stock-incentive plans adopted with shareholder approval	92.8%
40.	Options grants align with company performance and reasonable burn rate	78.5%
41.	Company expenses stock options	42.6%
42.	All directors with more than one year of service own stock	55.4%
43.	Officers' and directors' stock ownership is at least 1% but not over 30% of total shares outstanding	28.1%
44.	Repricing is prohibited	54.0%

Table 2
Descriptive Statistics

The table provides descriptive statistics for each country. The first column, *# of firms*, is the number of firms from each country that are in the sample in 2005. Median values are reported for market capitalization (*Mkt. Cap.)* and *Assets* in millions of U.S. dollars, and *q* is Tobin's *q* defined as ((total assets + market value of equity – total common equity – deferred taxes)/ total assets). *% ADR* is the percentage of firms that are cross-listed. The total row refers only to non-U.S. firms in the sample.

Country	***# of firms***	***q***	***Mkt. Cap.***	***Assets***	***% ADR***	***% of WScope Mkt Cap.***
Australia	119	1.41	1,513	1,846	27%	77%
Austria	19	1.21	1,874	4,542	53%	81%
Belgium	25	1.16	2,831	4,010	16%	80%
Canada	168	1.38	1,864	2,443	64%	77%
Denmark	22	1.39	2,314	1,481	9%	80%
Finland	31	1.24	1,634	2,363	16%	87%
France	83	1.27	6,593	9,295	39%	84%
Germany	85	1.27	3,954	7,524	29%	74%
Greece	44	1.14	719	779	9%	79%
Hong Kong	110	1.28	1,780	2,497	45%	60%
Ireland	16	1.24	4,376	3,553	56%	85%
Italy	71	1.10	4,216	12,222	14%	82%
Japan	589	1.15	2,019	3,795	13%	81%
Netherlands	47	1.28	2,702	3,124	40%	52%
New Zealand	18	1.48	817	741	17%	71%
Norway	21	1.49	1,343	1,335	43%	77%
Portugal	14	1.13	3,400	5,168	29%	86%
Singapore	67	1.11	1,033	1,368	16%	95%
Spain	54	1.34	3,822	4,049	17%	88%
Sweden	43	1.49	4,461	4,293	21%	85%
Switzerland	58	1.31	2,824	3,253	28%	89%
U.K.	530	1.51	690	907	18%	88%
U.S.A.	5,296	1.52	317	386		
World excluding U.S.A.	2,234	1.28	1,767	2,561	24%	

Table 3
Governance by Country

Mean governance percentage scores are reported for each country as of 2005. The governance score for a firm represents the percentage of governance attributes for which the firm meets or exceeds the minimum satisfactory standard. The percentage represents the mean percentage in each country based on the 44 or 7 ISS attributes. The attributes are described in Table 1. The sample consists of 2,234 non-U.S. firms and 5,296 U.S. firms. t-statistic measures the difference between the governance index, for firms in a country relative to the U.S. *, **, *** reflects significance at the 10%, 5% and 1% levels.

Country	GOV_{44}	*t-stat* GOV_{44} *relative to U.S.*	GOV_7	*t-stat* GOV_7 *relative to U.S.*
Australia	48%	-23.49***	52%	-15.24***
Austria	48%	-15.51***	64%	-5.32***
Belgium	39%	-14.94***	45%	-10.10***
Canada	69%	14.71***	92%	22.70***
Denmark	46%	-3.28***	73%	-0.09
Finland	57%	-10.81***	81%	2.36**
France	49%	-15.60***	36%	-19.61***
Germany	50%	-21.51***	65%	-8.38***
Greece	45%	-20.80***	59%	-8.49***
Hong Kong	45%	-35.93***	60%	-10.82***
Ireland	53%	-4.05***	62%	-2.40**
Italy	41%	-34.50***	42%	-20.80***
Japan	42%	-99.20***	37%	-67.20***
Netherlands	51%	-8.24***	63%	-3.93***
New Zealand	45%	-12.64***	59%	-4.99***
Norway	44%	-9.76***	56%	-5.92***
Portugal	39%	-18.19***	43%	-9.07***
Singapore	45%	-22.73***	67%	-3.52***
Spain	47%	-14.72***	51%	-10.38***
Sweden	44%	-19.84***	69%	-1.70*
Switzerland	55%	-5.71***	75%	1.31
U.K.	56%	-16.22***	71%	-2.84***
U.S.	61%		73%	
Total (w/o U.S.)	49%		58%	
Total (with U.S.)	58%		68%	

Table 4
Quality of Governance Relative to U.S.-Matched Firms

The table examines the difference in the quality of governance relative to a matching U.S. firm. The matching of the firm is done using two methods: 1) size and industry match, and 2) propensity score (P-score) and industry match as described in the paper. We calculate the difference in the GOV_{44} score of the foreign country and the U.S. matched firm. *GOV_{44} Gap* is the average for all firms in a country. *# of Pos. Gap* and *# of Neg. Gap* represents the number of firms that are better/worse than the U.S. matched firm in terms of the quality of governance. The last column represents the percentage of firms in each country whose quality of governance is better that its U.S. match. *, **, *** reflects significance at the 10%, 5% and 1% levels.

	Size & Industry Matching		**P-score and Industry Matching**				
Country	*GOV_{44} Gap*	*t-stat*	*GOV_{44} Gap*	*t-stat*	*# of Neg. Gap*	*# of Pos. Gap*	*Pos. Gap as % of Firms*
Australia	-18%	-17.18***	-25%	-21.92***	82	0	0%
Austria	-27%	-7.90***	-26%	-6.18***	9	0	0%
Belgium	-29%	-11.89***	-29%	-9.01***	19	0	0%
Canada	2%	1.75**	-4%	-3.88***	70	42	38%
Denmark	-22%	-10.46***	-23%	-7.82***	13	0	0%
Finland	-13%	-5.80***	-16%	-6.43***	19	3	13%
France	-20%	-17.91***	-20%	-12.55***	42	4	6%
Germany	-19%	-16.00***	-19%	-13.48***	61	3	5%
Greece	-21%	-12.65***	-21%	-7.65***	8	0	0%
Hong Kong	-22%	-17.63***	-26%	-21.86***	72	2	3%
Ireland	-16%	-3.09***	-10%	-2.51***	8	2	20%
Italy	-27%	-18.28***	-26%	-16.16***	35	0	0%
Japan	-27%	-67.64***	-25%	-52.17***	478	1	0%
Netherlands	-18%	-8.54***	-18%	-8.51***	35	4	10%
New Zealand	-22%	-6.76***	-24%	-4.87***	11	0	0%
Norway	-23%	-9.37***	-27%	-7.74***	12	0	0%
Portugal	-25%	-5.51***	-32%	-18.72***	7	0	0%
Singapore	-21%	-14.33***	-23%	-12.83***	47	1	2%
Spain	-18%	-9.06***	-23%	-9.34***	27	2	6%
Sweden	-24%	-13.05***	-28%	-14.20***	34	0	0%
Switzerland	-13%	-8.35***	-13%	-9.34***	41	5	11%
United Kingdom	-10%	-18.39***	-12%	-20.28***	344	62	15%
Total	-18%	-55.91***	-19%	-58.77***	1516	131	8%

Table 5
Comparison of Firms with Better Governance than U.S. Matching Firms

The reported median values of firm characteristics for negative and positive gap firms are based on industry and propensity score matching. Estimates of probit regressions for non-regulated firms where the dependent variable takes a value of one for positive gap firms. *SGROWTH* (sales growth), *R&D/SALES*, *FOREIGN SALES/SALES* are two-year averages and are winsorized at 1% and 99%; *SIZE* (natural log of total assets), *CASH/ASSETS*, *CAPEX/ASSETS*, *PPE/SALES*, *EBIT/SALES*, *DEBT/ASSETS*, *CLOSELY HELD*, *ADR* dummy, *GDPPC* (GDP per capita) and *MarketCap/*GDP are included. *Common Law* dummy equals one for a country with common law; the *Rule of Law* and the *Anti-Director* indices are from LLSV (1998) and DLLS (2006), respectively; the *Anti-Self Dealing Index* is also from DLLS (2006). p-values obtained from chi-squared tests for differences in medians are in parentheses for the descriptive statistics. Probit regressions include industry dummies and standard errors are corrected for country-level clustering (t-statistics are in parentheses). *, **, *** reflects significance at 10%, 5% and 1% .levels.

	Descriptive Statistics			**Probit Regressions**		
	Negative Gov. Gap # of Firms.= 1474	*Positive Gov. Gap # of Firms = 127*	*Difference between Neg. and Pos. Gap*	*LHS: Positive Gap Dummy (N=1584)*		
Q	1.31	1.59	-0.28			
			(0.00)***			
MKT. CAP ($ millions)	1530.97	1059.03	471.94			
			(0.03)**			
GOV_{44}	0.46	0.62	-0.16			
			(0.00)***			
SIZE, assets ($ millions)	2129.19	1309.73	819.46	-0.065	-0.092	-0.136
			(0.01)***	(1.76)*	(2.73)***	(4.17)***
SGROWTH	0.05	0.06	-0.01	0.043	0.070	0.172
			(0.58)	(0.29)	(0.54)	(1.57)
R&D/SALES	0.00	0.00	0.00	0.799	0.874	0.862
			(0.03)**	(0.68)	(0.75)	(0.75)
FOREIGN SALES/SALES	0.24	0.44	-0.21	0.319	0.368	0.405
			(0.02)**	(1.50)	(1.79)*	(1.98)**
CASH/ASSSETS	0.10	0.08	0.03	0.364	0.272	0.032
			(0.20)	(0.88)	(0.64)	(0.07)
CAPEX/ASSSETS	0.03	0.03	0.00	-1.125	-1.036	-1.314
			(0.74)	(1.33)	(1.28)	(1.67)*
PPE/SALES	0.26	0.21	0.05	-0.029	-0.021	-0.018
			(0.02)**	(1.96)*	(1.66)*	(1.62)
EBIT/SALES	0.08	0.10	-0.02	0.009	0.009	0.009
			(0.14)	(1.60)	(1.87)*	(1.97)**
DEBT/ASSETS	0.20	0.30	-0.10	2.122	2.112	2.021
			(0.00)***	(6.72)***	(6.77)***	(6.04)***
CLOSELY HELD	0.41	0.48	-0.065	-0.481	-0.412	-0.156
			(0.02)**	(1.06)	(1.08)	(0.42)
ADR	0	0	0	0.158	0.285	0.334
			(0.00)***	(1.27)	(1.72)*	(1.73)*
GDPPC	10.19	10.19	0	-0.213	-0.584	-0.629
			(0.00)***	(0.34)	(0.86)	(0.95)
MarketCap/GDP	107.80	131.53	-23.73	-0.001	-0.001	-0.000
			(0.00)***	(0.88)	(0.60)	(0.32)
Common Law	0	1	-1	1.209		
			(0.00)***	(3.31)***		
*Rule of Law*Anti-Director*	31.43	41.10	-9.67		0.077	
			(0.00)***		(3.80)***	
Anti-SelfDealing Index	0.48	0.93	-0.45			0.970
			(0.00)***			(2.07)**
Adj. R-squared				0.27	0.25	0.21

Table 6
Firm Value and Governance Index

The table shows estimates of regressions of firm value (Tobin's q, winsorized at 1% and 99%) on differences in governance between a foreign firm and a matched U.S. firm based on industry and propensity scores obtained from a probit analysis. GOV_{44}_US is the governance index for the matched U.S. firm. *NEGATIVE GAP* and *POSITIVE GAP* are the governance gap of a firm from its matching U.S. counterpart if negative and if positive, respectively. *GOV. GAP* includes both negative and positive gap. *SGROWTH* (sales growth), *R&D/SALES*, *FOREIGN SALES/SALES* are two-year averages and winsorized at 1% and 99%; *SIZE* (natural log of total assets), *CASH/ASSETS*, *CAPEX/ASSETS*, *PPE/SALES*, *EBIT/SALES* and *DEBT/ASSETS* are included for control. *CLOSELY HELD* is the percentage of shares closely held and *ADR* dummy equals one if for firms cross-listed in the U.S. All regressions include industry and country dummies, and standard errors are corrected for clustering of observations at the country level (t-statistics are in parentheses). F-statistics test the hypothesis that the corresponding coefficients are equal to each other. *, **, *** reflects significance at the 10%, 5% and 1% levels.

	(1)	(2)	(3)	(4)	(5)	(6)
GOV_{44}_US	1.126	1.158	0.879	0.900	0.816	0.836
	(3.39)***	(3.44)***	(3.15)***	(2.81)**	(2.86)***	(2.51)**
GOV. GAP	1.339		1.350		1.297	
	(3.94)***		(4.15)***		(3.81)***	
NEGATIVE GAP		1.120		1.139		1.074
		(3.12)***		(3.34)***		(2.98)***
POSITIVE GAP		3.326		3.349		3.391
		(3.14)***		(3.76)***		(4.10)***
SIZE	-0.149	-0.150	-0.084	-0.085	-0.103	-0.105
	(6.05)***	(5.97)***	(3.36)***	(3.33)***	(3.44)***	(3.44)***
SGROWTH			0.253	0.258	0.282	0.288
			(1.44)	(1.50)	(1.62)	(1.70)*
R&D/SALES			2.265	2.272	2.049	2.049
			(3.28)***	(3.21)***	(2.89)***	(2.80)**
FOREIGN SALES/SALES			0.115	0.123	0.077	0.085
			(1.21)	(1.31)	(0.82)	(0.91)
CASH/ASSSETS			2.280	2.255	2.232	2.204
			(7.25)***	(7.13)***	(6.83)***	(6.72)***
CAPEX/ASSSETS			3.039	3.070	3.021	3.053
			(3.79)***	(3.84)***	(3.87)***	(3.92)***
PPE/SALES			-0.009	-0.008	-0.008	-0.008
			(0.92)	(0.87)	(0.89)	(0.84)
EBIT/SALES			0.027	0.027	0.027	0.026
			(8.64)***	(8.54)***	(8.53)***	(8.40)***
DEBT/ASSETS			-0.004	-0.035	-0.005	-0.038
			(0.01)	(0.12)	(0.02)	(0.14)
CLOSELY HELD			0.196	0.203	0.219	0.228
			(1.52)	(1.55)	(1.75)*	(1.78)*
ADR					0.169	0.175
					(2.51)**	(2.59)**
Constant	3.235	3.195	1.639	1.603	1.943	1.915
	(7.24)***	(7.63)***	(3.97)***	(4.10)***	(4.15)***	(4.30)***
F Stat.*: GOV_{44}_US and GOV GAP*	0.67		5.50*		5.71*	
F Stat.*: GOV_{44}_US, NEG. GAP, POS. GAP*		2.00		4.05*		4.45*
F Stat.: *NEG. GAP and POS. GAP*		3.74*		5.08*		6.13*
Adj. R-squared	0.24	0.24	0.37	0.37	0.38	0.38
Number of Observations	1602	1602	1584	1584	1584	1584

Table 7
Individual Attributes by Country and Differences from the U.S.

The table represents the percentage of firms (using all firms reported) in each country that meets or exceeds the minimum satisfactory threshold for each governance attribute. The seven attributes are: *Board Independence*: board is controlled by more than 50% independent outside directors; *Board Size*: board size is at greater than five but less than 16; *Chairman/CEO Separation*: chairman and CEO are separated or there is a lead director; *Board Structure*: annually elected board (no staggered board); *Audit Committee Independence*: audit committee comprised solely of independent outsiders; *Auditor Ratification*: auditors ratified at most recent annual meeting; and *Stock Classes*: only single class, common stock (no dual class). Italics are used if the mean difference in the attribute for a country with the U.S. is negative and is statistically significant at the 5% level. If the difference is positive and significant, it is shown in bold. Significance is not reported if zero percent or 100 percent of firms satisfy an attribute in a country.

Country	*Board Independ.*	*Board Size*	*Chairman/CEO Separation*	*Board Structure*	*Audit Comm. Independ.*	*Auditor Ratification*	*Stock Classes*
Australia	*41%*	***89%***	***97%***	*2%*	*26%*	*12%*	***97%***
Austria	*11%*	84%	100%	*5%*	0%	***89%***	100%
Belgium	*20%*	76%	***68%***	0%	*16%*	*20%*	96%
Canada	93%	***93%***	***94%***	***98%***	90%	***99%***	*74%*
Denmark	*68%*	82%	100%	59%	*9%*	***95%***	*73%*
Finland	*68%*	81%	100%	***87%***	*48%*	100%	*71%*
France	*29%*	76%	46%	*1%*	*22%*	*35%*	*42%*
Germany	*44%*	86%	100%	0%	*4%*	***95%***	100%
Greece	*5%*	***91%***	***89%***	*2%*	*9%*	***98%***	100%
Hong Kong	*7%*	86%	***67%***	*5%*	*55%*	100%	100%
Ireland	*38%*	81%	***81%***	*6%*	*38%*	***88%***	100%
Italy	*3%*	*65%*	***79%***	0%	*7%*	*31%*	***99%***
Japan	*1%*	*78%*	0%	*41%*	*2%*	*2%*	100%
Netherlands	85%	74%	***98%***	*6%*	*57%*	*51%*	*64%*
New Zealand	*33%*	***94%***	100%	0%	*17%*	67%	100%
Norway	71%	*57%*	100%	*19%*	*29%*	*5%*	100%
Portugal	*36%*	71%	64%	0%	*21%*	*14%*	86%
Singapore	*43%*	100%	***87%***	0%	*43%*	100%	***99%***
Spain	*7%*	*69%*	***63%***	*2%*	*9%*	***89%***	96%
Sweden	*65%*	***98%***	100%	***98%***	*26%*	*19%*	*70%*
Switzerland	*71%*	81%	***98%***	*16%*	*57%*	***98%***	***98%***
U.K.	*35%*	***91%***	***97%***	*7%*	*68%*	***98%***	***99%***
U.S.A.	90%	82%	42%	48%	88%	66%	94%

Table 8
Individual Governance Attributes and Differences in Firm Value based on U.S. Matched-Firms

The table shows the relation between firm value (Tobin's q, which is winsorized at 1% and 99%) and differences in individual governance attributes between a foreign firm and a matched U.S. firm based on industry and propensity scores obtained from a probit analysis. The seven attributes are: *Board Independence*: board is controlled by more than 50% independent outside directors; *Board Size*: board size is at greater than five but less than 16; *Chairman/CEO Separation*: chairman and CEO are separated or there is a lead director; *Board Structure*: annually elected board (no staggered board); *Audit Committee Independence*: audit committee comprised solely of independent outsiders; *Auditor Ratification*: auditors ratified at most recent annual meeting; and *Stock Classes*: only one class of common stock. Panel A reports results from seven different models that include one attribute at a time. Panel B reports results from one model that includes all seven attributes at the same time. *ATTRIBUTE_US* is the governance attribute for the matched U.S. firm. *NEGATIVE GAP* and *POSITIVE GAP* are the governance gap of a firm from its matching U.S. counterpart if negative and if positive, respectively. The following control variables are included but their coefficients are not reported here: *SIZE* (natural log of total assets); *SGROWTH* (sales growth), *R&D/SALES, FOREIGN SALES/SALES* are two-year averages and are winsorized at 1% and 99%; *CASH/ASSETS, CAPEX/ASSETS, PPE/SALES, EBIT/SALES* and *DEBT/ASSETS* are also included. *CLOSELY HELD* is the percentage of shares closely held and *ADR* dummy equals one if the firm is cross-listed in the U.S. All regressions include industry dummies, country FE, and standard errors are corrected for country-level clustering. F-statistics test the hypothesis that the corresponding coefficients are equal to each other. *, **, *** reflects significance at the 10%, 5% and 1% levels. Number of observations is 1584 for each model.

	Board Independ.	*Board Size*	*Chairman/ CEO Separation*	*Board Structure*	*Audit Comm. Independ.*	*Audit Ratification*	*Stock Classes*
Panel A: Regressions Using Individual Governance Attributes							
ATTRIBUTE_US	0.182	-0.598	0.007	0.022	0.230	0.052	0.181
	(1.94)*	(1.13)	(0.07)	(0.31)	(2.84)***	(0.88)	(0.96)
NEGATIVE GAP	0.217	0.004	0.073	-0.033	0.138	0.160	0.099
	(6.63)***	(0.05)	(0.68)	(0.94)	(2.39)**	(2.28)**	(1.21)
POSITIVE GAP	0.237	-0.689	0.055	0.089	0.959	-0.001	0.071
	(2.21)**	(1.33)	(0.58)	(1.71)*	(4.41)***	(0.01)	(0.38)
F Stat.*: ATTR_US, NEG. GAP, & POS. GAP*	0.22	0.93	1.73	1.81	6.22***	2.26	1.52
F Stat.: *NEG. GAP and POS. GAP*	0.03	1.61	0.07	2.88	12.42***	3.18*	0.02
Adj. R-squared	0.37	0.37	0.37	0.37	0.38	0.37	0.37
Panel B: Regression Using All Seven Attributes							
ATTRIBUTE_US	0.181	-0.614	0.019	0.037	0.176	0.037	0.154
	(1.57)	(1.22)	(0.19)	(0.54)	(2.13)**	(0.44)	(0.81)
NEGATIVE GAP	0.168	-0.005	0.060	-0.021	0.085	0.157	0.080
	(3.93)***	(0.06)	(0.60)	(0.56)	(1.38)	(2.26)**	(0.96)
POSITIVE GAP	0.250	-0.733	0.044	0.066	0.888	0.020	0.043
	(2.34)**	(1.47)	(0.55)	(1.25)	(3.82)***	(0.19)	(0.24)
F Stat.*: ATTR_US, NEG. GAP & POS. GAP*	98.84***						
Adj. R-squared	0.38						

Table 9
Robustness Estimations

The relationship between firm value and differences in governance between a foreign firm and a matched U.S. firm is estimated. GOV_{44} *is* the governance index for the foreign firm and GOV_{44}_US is the index for the matched U.S. firm. *NEGATIVE GAP* and *POSITIVE GAP* are the governance gap from the U.S. matched firm if negative and if positive, respectively. Panel A includes only firm-specific controls and Panel B also includes country-level controls. Firm-level controls are (coefficients not reported): *SIZE* (natural log of total assets); *SGROWTH* (sales growth), *R&D/SALES*, *CASH/ASSETS*, *CAPEX/ASSETS*, *PPE/SALES*, *EBIT/SALES*, *DEBT/ASSETS*, *FOREIGN SALES/SALES*, *CLOSELY HELD*, and *ADR* for the foreign firms. Last three variables are excluded and S&P 500 dummy are added for the U.S. firms in Column (2). *Median Industry Q* is median Q for the firm's industry. Panel B also controls for GDP per capita and Market Cap/GDP. *Common Law* dummy equals one for common law countries; the *Rule of Law* and the *Anti-Director* indices are from LLSV (1998) and DLLS (2006), respectively; the *Anti-Self Dealing* index is also from DLLS (2006). All regressions, include industry dummies (except col. 7, Panel A), and country FE (in Panel A only). Standard errors are corrected for country-level clustering (t-statistics are in parentheses). F-statistics test the hypothesis that the corresponding coefficients are equal to each other. *, **, *** reflects significance at the 10%, 5% and 1% levels.

Panel A: With Firm-Level Controls

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Foreign Firms	U.S. Firms	Size & Ind Matched	Foreign Ex. Japan	Foreign Ex. U.K.	Foreign Ex. Canada	Median Industry Q
GOV_{44}	1.269	1.156					
	(3.75)***	(3.56)***					
GOV_{44}_US			1.248	0.996	0.517	0.801	0.891
			(1.98)*	(3.04)***	(1.19)	(2.23)**	(3.23)***
NEGATIVE GAP			1.162	1.302	0.782	1.039	1.117
			(3.10)***	(4.52)***	(1.65)*	(2.65)**	(3.14)***
POSITIVE GAP			2.264	3.843	4.078	4.222	3.008
			(3.48)***	(3.84)***	(1.85)*	(3.02)***	(3.93)***
Median Industry Q							0.596
							(5.49)***
F Stat.:GOV_{44}_US, *NEG. & POS. GAP*			1.02	4.82**	1.43	4.36**	4.80**
F Stat.: *NEG. & POS. GAP*			1.85	5.26**	2.05	4.00*	4.53**
Adj. R-squared	0.38	0.30	0.37	0.35	0.38	0.38	0.37
# of Observations	1584	2576	1584	1107	1184	1476	1584

Panel B: With Firm-Level and Country-Level Controls for all 1584 Foreign Firms

	(1)	(2)	(3)
GOV_{44}_US	0.536	0.186	0.388
	(1.55)	(0.45)	(1.1)
NEGATIVE GAP	0.673	0.342	0.537
	(1.91)*	(0.83)	(1.49)
POSITIVE GAP	2.786	2.424	2.621
	(2.87)***	(2.59)**	(2.61)**
GDPPC	-0.44	-0.416	-0.404
	(3.65)***	(3.14)***	(3.31)***
MarketCap/GDP	0	0	0
	(0.02)	(1.09)	(0.12)
COMMON LAW	-0.122		
	(1.31)		
*Rule-of-law*Anti-Director*		0.003	
		(0.44)	
AntiSelf-Dealing Index			-0.189
			(1.22)
F Stat.*:* GOV_{44}_US*, NEG.& POS. GAP*	3.35*	3.37*	3.34*
F Stat: *NEG. GAP and POS. GAP*	5.47**	5.61**	5.36**
R-squared	0.36	0.36	0.36