

# Adopting Better Corporate Governance: Evidence from Cross-border Mergers\*

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## Abstract

Cross-border mergers allow firms to alter the level of protection they provide to their investors, because target firms usually import the corporate governance system of the acquiring company by law. Therefore, cross-border mergers provide a natural experiment to analyze the effects of changes in corporate governance on firm value, and on an industry as a whole. We construct measures of the change in investor protection induced by cross-border mergers in a sample of 7,330 'national industry years' (spanning 39 industries in 41 countries in the period 1990-2001). We find that the Tobin's Q of an industry - including its unmerged firms - *increases* when firms within that industry are acquired by foreign firms coming from countries with better shareholder protection and better accounting standards. We present evidence that the transfer of corporate governance practices through cross-border mergers is Pareto improving. Firms that can adopt better practices willingly do so, and the market assigns more value to better protection.

KEYWORDS: corporate governance, market regulation, cross-border acquisitions.

JEL classification: F3, F4, G3.

*I think that for active investors like us, corporate governance is built into the analytic process of assessing deals and will figure ultimately in the decision as to whether or not premiums have to be paid for a company. I think this is a global investor issue. When global investors look at deals, particularly cross-border deals, they will often factor corporate governance issues into the equation, and these may have a practical effect on price and value.*

—Peter Clapman, Senior Vice-president and Chief Counsel Investments, TIAA-CREF (from Alexander, 2000)

## 1 Introduction

The political economy approach to corporate governance has documented the importance of legal rules in determining corporate finance and corporate governance decisions. Legal rules—this approach argues—determine the extent to which countries differ in the degree of investor protection and, in turn, the impact of such differences on the size of capital markets, as well as firms' value, distribution policies, ownership structures, and financial choices.<sup>1</sup> This article extends the existing literature by evaluating the effects on industry value of adopting better corporate governance practices induced by cross-border mergers.

Our study is based on the observation that in a cross-border merger, the target firm usually adopts the accounting standards, disclosure practices, and governance structures of the acquiring firm.<sup>2</sup> This implies that, even when there is no formal change of the domestic legal system, firms in a country can adopt different levels of investor protection, depending on the firms they merge with. Bris and Cabolis (2008) have shown that stronger shareholder protection and accounting standards in the acquirer's country result in a higher merger premium. Martynova and Renneboog (2008) find similar results in an analysis of announcement returns to cross-border mergers. These results are in line with other papers in the literature that find a high correlation between transparency and accountability improvements and higher stock returns. Gompers et al. (2003) and Cremers and Nair (2005) study the U.S. market and determine that improvement of investor protection

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<sup>1</sup>Legal rules have been shown to determine: corporate valuation (La Porta et al. 2002; Himmelberg, et al. 2002); firms' financing choices (Demirguc-Kunt and Maksimovic, 1998, 1999); capital allocation (Wurgler, 2000; Beck and Levine, 2002; Claessens and Laeven, 2003); market efficiency (Mørck et al., 2000); and even the severity of currency crises (Johnson et al., 2000).

<sup>2</sup>Nothing precludes the acquiring firm from adopting some corporate governance provisions of the target firm. For a case study on the cross-border merger that resulted in Aventis, see Bris and Cabolis (2007).

is associated with higher returns, while Bergman and Nicolaievsky (2007) examine the effect of strengthening investor protection in Mexico with similar results.

A natural question that follows is the effect on the industry as a whole of an increase in the governance quality of an individual firm. There are at least two positive ways in which the industry may be affected. First, there can be a *spillover* effect as firms in an industry recognize that an input of production – corporate governance – is used more efficiently by the target firm and so strengthen their own governance levels as a response. Doidge et al. (2007), for instance, show that even after controlling for country characteristics, firms do not differ much in their corporate governance levels, at least in developing countries. This may be interpreted as an attempt by industry participants to maintain similar governance structures. Second, as Bris and Brisley (2007) show, corporate governance reform by a single firm in the industry can increase profits even for firms that do not reform. The reason is that, in a non-perfectly competitive setting with less than stringent corporate governance, all firms tend to overproduce. Corporate governance reform induces the reforming firm to produce less, leaving room for competitors to increase their production further and increase their profits. Overall, the profits of the entire industry benefit from a single firm improving its corporate governance.

It is conceivable that an industry could be negatively affected by an increase in the governance quality of an individual firm. For example, if the firm that reforms its corporate governance is the dominant firm in the industry, the increase in the profits of this firm might be insufficient to offset the losses caused to the industry followers, resulting in an overall decrease in industry value. Prohibitively high costs associated with the renegotiation of contracts related to corporate governance could contribute to this effect and Bergman and Nicolaievsky (2007) show that public companies in Mexico do not improve corporate governance standards beyond what is required by the law.

Ultimately, the industry-level effect of a strengthening of investor protection in a target firm is an empirical question. We measure the average change in investor protection in a given industry and country by considering all the cross-border mergers that take place in any given year. We then relate these changes in investor protection to a measure of value – the median Tobin’s Q of the firms in the industry – in order to examine whether the industry realizes an increase in the average return due to the strengthening of investor protection.

There are several advantages to working with industry-level data. First, our panel of industry-country-year observations allows us to control for country-specific events, such as changes in regulation, trends in the market for corporate control, and taxation. Second, it expands the scope of our research to the whole industry, instead of focusing merely on its merging firms. Third, because

the target firm in a cross-border merger effectively adopts the nationality of the acquiring firm, a firm-level analysis would not identify any benefits of improved investor protection to the country where the target is located. Finally, and consistent with our hypotheses, corporate governance change mechanisms such as institutional ownership and external monitoring are instrumental in transmitting the benefits of improved corporate governance from merged firms to unmerged firms. A sample restricted to merging firms would be biased towards those in countries where the direct effect of the takeover market is a dominant corporate governance mechanism and would miss altogether the indirect positive externality effect that we document here. By studying all industries in all countries with available data, we address each of these issues.

Our sample includes more than 15,000 cross-border acquisitions in the period 1990-2001, corresponding to firms in 39 industries and 41 countries. We construct industry-wide corporate governance indices by calculating the value-weighted averages of the corporate governance quality indices in La Porta et al. (1998). When a cross-border merger takes place in a given industry, the corporate governance indices of the industry may change since the target firm adopts the governance system of the acquirer. We use two indicators of corporate governance quality: shareholder protection and accounting standards.

We estimate panel regressions with Tobin's Q of the corresponding industry as the endogenous variable. We control for industry, year and country effects. Additionally, we control for concentration and the merger activity in the industry and country under consideration. The key explanatory variables are the two indicators of corporate governance change that we construct. We find that when firms in a given industry are acquired by firms from countries with stronger shareholder protection practices, there is a significant increase in the value of that industry, as measured by the industry's Tobin's Q. Similarly, importing better accounting standards creates value for the target industry. This is consistent with corporate governance reform in one firm having a positive effect on other industry participants. We test whether the value increase is related to the degree of competition in the industry, measured by the Herfindahl index, and find a positive but insignificant relationship. Ultimately, we conclude that our results are consistent both with both the *spillover effects* and *industry competition* hypotheses

As a robustness test, we check whether our results are due to the value of governance being greater in industries where there is greater need to raise external capital. We interact cross-border merger-related governance improvements with an indicator of external financial needs (Almeida and Wolfenzon, 2005). Contrary to this hypothesis, we find that the relationship between governance improvements and industry Tobin's Q is weaker when financial constraints are stronger.

Overall, we find strong evidence that the change in corporate governance practices through

cross-border mergers is Pareto improving. Industries targeted by foreign firms from stronger corporate governance countries do benefit from an increased market valuation. Interestingly, industries containing firms that are targeted by acquirers from a weaker corporate governance country do *not* seem to be negatively affected. Consistent with the quote at the beginning of this paper, we do not find evidence that corporate governance is a  *motive* for cross-border acquisitions, rather corporate governance considerations significantly determine the valuation effects of cross-border mergers, even at the industry level. Our results are robust to using alternative measures of governance quality, such as the modified LLSV index of Pagano and Volpin (2005), and the World Bank Rule of Law Index, both of which are time varying.

Our results are consistent with the literature on intra-industry valuation effects of mergers (Eckbo, 1982 and 1985; Akhigbe and Martin, 2000). Measuring the pure valuation effects of cross-border mergers is *not* our objective. Instead, we control for the pure valuation effects and study the impact on the median firm in an industry of changes in corporate governance induced by cross-border mergers. Our paper is also related to La Porta et al. (2002) and Gompers et al. (2003) which, relying on country-level data and firm-specific corporate governance characteristics respectively, identify a positive relationship between corporate governance quality and value. Both papers provide cross-sectional results, indeed Gompers et al. (2003) argue that it is not possible to identify any causal relationship between governance and value in their setting. We extend this literature by using a panel data sample. The majority of the corporate governance literature provides cross-sectional results on the relationship between investor protection and corporate finance variables in a given year. Unfortunately, whether one is arguing in favor of or against legal change, such static evidence is not particularly helpful. Indeed, one cannot conclude that improvements in investor protection within a country have positive effects, unless there is localized evidence (Glaeser et al., 2001, on the Poland–Czech Republic difference), or new indicators are constructed (as in Pistor, 2006, for transition economies, and Hyytinen et al., 2003, for Finland). Ours is the first attempt to document the effect of changes in corporate governance by using a large sample of countries, from four different legal origins and including both developed and emerging markets, all spanning a period of twelve years.

Rossi and Volpin (2004) use cross-sectional data and find that the majority of targets in cross-border acquisitions come from countries with poor investor protection, whereas the majority of acquirers come from more investor-friendly regimes. Our paper complements theirs, and asks whether changes in corporate governance are priced by the market. Finally, our rich dataset allows us to extend the results of Daines (2001), who provides cross-sectional evidence that the market assigns a higher value to the assets of firms incorporated in Delaware.

The study of mergers has provided a vast empirical literature which focuses on the effects of integration on the values of both the acquiring and the target firm. However, Andrade et al. (2001) point out that the empirical literature has had little to say on the more fundamental question surrounding merger activity: how – and not whether – mergers create or destroy value. Our work posits the transfer of corporate governance practice as a conduit through which mergers can improve value.

The paper is organized as follows. Section 2 presents the alternative hypotheses provided by the literature. Section 3 describes the data and its sources. Section 4 outlines the construction of industry-level corporate governance indices from the original merger sample. Section 5 analyzes the relationship between industry value and corporate governance. In Section 6 we perform robustness tests, and Section 7 concludes.

## 2 Testable hypotheses

There are three alternative hypotheses that explain the relationship between corporate governance improvements at the individual firm level, and the overall value of the industry. These arguments rely on the assumption that corporate governance improvements have a positive effect on the value of the reforming firm. There is ample empirical evidence supporting this statement (La Porta et al., 1998; Gompers et al., 2003; Bris and Cabolis, 2008; Martynova and Renneboog, 2008). The three alternative hypotheses differ in the way corporate governance improvements in one firm impact the way the other industry participants behave. In the subsequent sections we proceed to test them.

1. *Market control hypothesis.* If the firm that reforms its corporate governance is the dominant firm in the industry, the increase in the profits of this firm might be insufficient to offset the losses caused to the industry followers, resulting in an overall decrease in industry value. In this case the industry will be negatively affected by an increase in the governance quality of an individual firm. Prohibitively high costs associated with the renegotiation of contracts related to corporate governance could contribute to this effect and Bergman and Nicolaievsky (2007) show that public companies in Mexico do not improve corporate governance standards beyond what is required by the law. The market control hypothesis can explain a negative relationship between corporate governance improvements induced by cross-border mergers, and industry value.
2. *Spillover effects hypothesis.* Corporate governance can be considered as an additional input in production. A corporate governance reforming firm utilizes this input more efficiently,

and so can increase profits and can allow this firm to charge lower prices. Competition then forces other industry participants to imitate, or face being driven out of the market. The spillover effects hypothesis predicts a positive relationship between corporate governance improvements and industry value and does not presume or rely upon any particular industry structure.

3. *Industry competition hypothesis.* This hypothesis is formulated in Bris and Brisley (2007). In their model of an industry with less-than-perfect investor protection, firms competing in quantities produce more than in a perfect corporate governance (profit maximizing) setting. If a subset of firms in the industry improve their corporate governance standards (for example, by means of cross-border mergers), then these target firms have less incentive to expropriate shareholders, leading them to reduce output. Paradoxically, restricting output by the target firms leaves more room for the unmerged firms to expand output and produce even more than before. The net effect is a decrease in output for the industry and hence an increase in prices. Higher prices and lower costs for target firms, albeit on reduced volumes, increase their profits. Higher prices and higher output for unreformed firms increase their profits. Overall, this simple model provides a competitive argument for why corporate governance improvement through cross-border mergers is beneficial for a whole industry. Competition acts as a complement to corporate governance at the industry level. If one firm in an industry improves corporate governance, the resulting increase in efficiency leads to an increase in the value of the firm. The improved governance provides a positive externality to other industry participants – by reducing production, the better-governed firm leaves more room for profits to the industry incumbents. The model shows that increases in industry value do not necessarily rely on competing firms being implicitly forced to reform. Instead, good governance forces the target firm to become a more efficient competitor, and allows unreformed firms to capture a larger market share. The value of all firms increases and so does the total industry value. The industry competition hypothesis predicts a positive relationship between corporate governance and industry value.

## 3 Data

### 3.1 *Industry data*

We use all available firms in CRSP, Compustat and Datastream to construct annual series of industry specific variables within each country for the years 1990–2001. We classify firms within

each of the 39 industrial groups defined in Datastream.<sup>3</sup> Initially, firms in the U.S. are classified by their two-digit SICs. Since there is no mechanical correspondence between Datastream industries and SIC codes, we handmatch two-digit SIC codes with their corresponding four-digit Datastream Industrial Classification Codes. For each industry within a country we calculate the annual Tobin's Q. Datastream calculates the book value of assets *net* of intangible assets, so Tobin's Q calculated from Compustat and Datastream are not exactly comparable. Moreover, some of the resulting book equity values from Datastream are negative. To overcome the distorting effect of the negative values, we calculate the annual industry Tobin's Q by inverting the median of the inverted firm-specific Tobin's Q.<sup>4</sup> Additionally, in the econometric analysis, we use country random effects, and time-invariant, country-specific controls.

Individual Tobin's Q for U.S. firms are calculated as the market value of the firm's assets divided by its book value (Kaplan and Zingales, 1997; Gompers et al., 2003). The market value of the assets is computed as the book value of the assets plus the market value of common stock, minus the book value of common stock and deferred taxes. For non-U.S. firms, the market value of the firm is calculated as the market value of equity plus the book value of the firm's liabilities. The latter is computed by subtracting the book value of equity (Datastream company account item # 307) from the book value of total assets (Datastream item # 392). In each year, we calculate individual Tobin's Q for firms that remain listed at December 31. We also include in our industry measures of Tobin's Q, those acquired target firms that are delisted during the year. We record the most recent information available for those firms – stock price data in the month prior to delisting, and accounting data for the year of delisting. Because delisting happens after the acquisition announcement, the market value of the target firms already incorporates the effect of the takeover premium on stock prices.

We are able to calculate industry Tobin's Q for 7,233 industry-country-years from 39 industries from 41 different countries, across a period of 12 years. We consider only the countries for which we have merger data and corporate governance indices, as described in the following section.

### ***3.2 Merger and Acquisitions Data***

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<sup>3</sup>Datastream Industrial classifications exist at six levels. Level four comprises 39 sectors based on the FTSE Actuaries System.

<sup>4</sup>Shin and Stulz (1998), and Gertner et al. (2002) also calculate industry Tobin's Q using the median Q of the firms within each industry.

The base mergers sample includes all the cross-border acquisitions of public companies available in Securities Data Corporation, from January 1, 1990, through December 31, 2001. We only consider completed transactions, and we exclude from the initial sample LBOs, spin-offs, recapitalizations, self-tender and exchange offers, repurchases, acquisitions of minority stakes, and privatizations. Because corporate governance changes are legally effective only when 100 percent of the shares of the target get acquired (Bris and Cabolis, 2008), our sample includes only this type of transaction. We also exclude deals that involve firms from countries without corporate governance data available in La Porta et al. (1998) and also countries defined by them as being of socialist legal origin. This leaves us with 16,772 cross-border acquisitions of targets from 41 different countries.

For each acquisition we obtain the industry classification and country of bidder and target, the dollar value of the transaction, and the date of announcement of the deal.<sup>5</sup> We have data on the dollar value of the transaction for a reduced sample of 7,597 acquisitions. Throughout the paper, we report results for the full 16,772 sample, unless data on the dollar value of the deal is necessary, in which case we report results for the reduced sample.

We group acquisitions within an industry depending on the industry classification of the target, as outlined above. We calculate the number of listed firms in a given industry, country, and year, from CRSP (U.S. firms) and Datastream (non-U.S. firms). This allows us to construct the following measures of merger intensity:

$$AV_{jit} = \frac{VA_{jit}}{MC_{jit}}, \quad (1)$$

$$AN_{jit} = \frac{NA_{jit}}{NC_{jit}}, \quad (2)$$

$VA_{jit}$  denotes the *dollar* value of all completed cross-border acquisitions *of* firms from industry  $j$ , in country  $i$  and in year  $t$ .  $MC_{jit}$  denotes the dollar denominated market capitalization of industry  $j$ , in country  $i$  and in year  $t$ . Similarly,  $NA_{jit}$  is the *number* of completed cross-border acquisitions and  $NC_{jit}$  is the number of listed companies in industry  $j$ , in country  $i$  and in year  $t$ . Thus  $AV_{jit}$  is a measure of the relative acquisition *value* and can be interpreted as the percentage of a domestic industry's market capitalization that is bought by foreigners in a given year. Similarly,

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<sup>5</sup>The dollar value of the transaction is the total value of consideration paid by the acquiror, excluding fees and expenses. It includes the amount paid for all common stock, common stock equivalents, preferred stock, debt, options, assets, warrants, and stake purchases made within six months of the announcement date of the transaction. Assumed liabilities are included in the value if they are publicly disclosed. Preferred stock is included only if it is being acquired as part of a 100% acquisition. If a portion of the consideration paid by the acquiror is common stock, the stock is valued by using the closing price on the last full trading day before the announcement of the terms of the stock swap. If the exchange ratio of shares offered changes, the stock is valued based on its closing price on the last full trading date before the date of the exchange ratio change.

$AN_{jit}$  represents the *percentage* of the publicly listed companies in an industry that are acquired by foreigners in a given year.<sup>6</sup>

[INSERT TABLE 1]

In Table 1 we report the aggregate  $AV_{jit}$  (Cross-border \$ value) and  $AN_{jit}$  (Cross-border Number) by geographic region and report also their ‘all merger’ (i.e., cross-border *and* domestic) analogues. We distinguish between European Eurozone countries, and European non-Eurozone countries. In the period 1990-1994, there are significant differences across regions. The number and value of cross-border mergers of firms in North America, Oceania, and Western Europe is relatively high, compared to Africa, Central and South America, and Asia. Overall there is a significant increase in the merger volume during the second half of the 1990s. In North America for instance, 0.45 percent of the market capitalization was acquired by foreign corporations between 1990 and 1994; the ratio increased to 1.43 percent during the years 1995-2001. The volume of cross-border mergers in Central and South America increases 14 times.

## 4 Corporate Governance Indices

In this section we describe our calculation of industry-specific corporate governance indices. Our starting point is the country-specific indices of shareholder rights and accounting standards from La Porta et al. (1998). As Bris and Cabolis (2008) discuss, these indices describe the initial corporate governance environment of target and acquirer in a cross-border merger and hence can be used to describe the potential for change in environment caused by an acquisition. The shareholder protection index is the product of shareholder rights multiplied by the efficiency of the judicial system index.

### 4.1 Corporate Governance quality

Every acquisition in our sample is characterized by the shareholder protection index and accounting standards index for the country of the acquiring firm, and those for the country of the target firm.

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<sup>6</sup>Datastream does not provide information on *all* the firms listed in a given industry. In this respect, the merger ratios we calculate are an approximation. Using data from IFC manuals, we have also estimated (but do not report) our regressions using the market capitalization of all firms in the country, and the number of all listed firms in the country, as denominators in the corresponding ratios of merger activity. There is no qualitative change in the results. Moreover, the total number of firms (in a country) that we obtain from Datastream, and the total market capitalization of the country, do not differ much from their IFC equivalents after 1985. We report results based on industry because their interpretation is more appropriate.

The simple differences between the corresponding indices of the two countries provide an indication of the *corporate governance quality transfer* that results from the cross-border merger. To illustrate, suppose that a U.K. firm acquires a Greek firm. Since the shareholder protection index in Greece is 14, and the shareholder protection index in the U.K. is 50, the acquisition serves as a potential way of transferring corporate governance practices from the U.K. to Greece, or vice versa.

The La Porta et al. (1998) indices have different ranges, and so it is difficult to draw comparisons in absolute terms. Therefore, we classify countries into two groups for each index, depending on whether the corporate governance indicator for a country is above or below the median. We assign a value of 1 to the corresponding index when the country has an index above the median, zero otherwise. Since the median shareholder protection index is 20, we assign to Greece an index of shareholder protection of 0, and we assign to the U.K. an index of shareholder protection of 1. When a U.K. firm acquires a Greek firm we measure the corporate governance transfer from the U.K. to Greece as the difference between the shareholder protection indices in the two countries:  $1 - 0 = 1$ . This convention yields three types of cross-border mergers with respect to corporate governance transfer index: *corporate-governance-improving* acquisitions (difference index equals 1), *corporate-governance-preserving* acquisitions (difference index equals 0), and *corporate-governance-worsening* acquisitions (difference index equals  $-1$ ).

In an earlier version of this paper we used the absolute difference between the corporate governance indices of the acquiring and target firms. Qualitatively, our results were not different from the ones presented here. By adopting the current classification between two categories, we reduce the impact of a potential errors-in-variables problem in the La Porta et al. (1998) indices.

Table 2 shows the corporate governance quality transfer for the cross-border acquisitions in our sample. We report the percentages of cross-border mergers that are corporate governance worsening, preserving, and improving, from the point of view of the target firm. Our results contrast with Rossi and Volpin (2004), who report that the corporate governance quality of acquirers in cross-border mergers is significantly higher than the quality of targets. In the period 1995-2001, we find slightly more cross-border transactions involving a below-median shareholder protection acquirer buying an above-median target (18.13 percent of the cases) than the reverse (16.93 percent).

[INSERT TABLE 2]

The next step is to average the indicators across firms in an industry, country and year. To separate the effect of the acquisitions on acquiring and target firms, we first consider, for every industry, only those acquisitions where firms in the industry are target firms. We then calculate weighted averages, weighting by the dollar value of the acquisition. In the case of no cross-border

merger activity within a particular industry and year, we set the corresponding difference index to zero.

Weighting by the dollar value of the merger has one important advantage. The difference in corporate governance quality between the acquiring and target firms for a given industry will tend to zero as the number of cross-border mergers tends to zero. Therefore, our indices reflect the volume of cross-border mergers in a given industry, as well as the differential quality of the firms involved in the acquisition in terms of corporate governance practices. However, because we only weight those cross-border mergers where the levels of shareholder protection in the acquirer and the target differ, we are effectively using as a natural control sample both the subsample of mergers where the levels of shareholder protection in the acquirer and the target are the same, and the subsample of firms that do not get involved in acquisition activity.

## 5 The Value of Corporate Governance: Industry-level Evidence

In this section we analyze the relationship between industry value, measured by the Tobin’s Q, and the merger-specific corporate governance indicators.

### 5.1 *Shareholder Protection and Industry Value*

Let  $q_{jit}$  be the natural logarithm of the Tobin’s Q in industry  $j$ , country  $i$ , and year  $t$ , calculated as described in 3.3.1. For any set of corporate governance variables  $\mathbf{G}_{jit}$ —be it the index corresponding to either the target or the acquiring firms, or the difference between them, or both—we estimate the following regression:

$$q_{jit+1} = D_{jt} + \delta AV_{jit} + \theta H_{jit} + \beta \mathbf{G}_{jit} + \varepsilon_{jit} \quad (3)$$

We use a panel of 7,233 industry–country–year observations.  $D_{jt}$  is a vector of  $(39 \times 12)$  industry-year fixed effects, which captures any specific event affecting industry  $j$  in year  $t$ . We estimate the model with country-year random effects, which allow us to isolate idiosyncratic events such as the prediction by Pagano and Volpin (2005) that the frequency of mergers and acquisitions is negatively correlated with employment protection. Similarly, the presence or absence of merger laws affects the number of mergers. In countries and periods without a merger law, SDC reports a limited number of acquisitions. The reason is that, absent such laws, there are no notification requirements for the acquirer, and so mergers can take place without public knowledge. Finally, in some countries, acquisitions are an important means of effecting change in control, while in others

they play a minor role.<sup>7</sup> These type of effects will be captured by our random effects.

The value of the industry is also determined by three industry-country-year specific characteristics. We first control for the dollar volume of cross-border mergers,  $AV_{jit}$ , as calculated in equation (1). In other words, we separate the corporate governance characteristics of the acquiring firms from the merger volume in a particular industry. We also control for the time-varying Herfindahl index of the industry,  $H_{jit}$ , calculated using the dollar value of the sales in every firm in the industry, with available data from Datastream. Eckbo (1985) fails to find evidence of a positive relationship between industry concentration and the benefits to rivals of merging firms, that industrial organization models such as Stigler (1964) would predict.

Dual-listing of securities in the U.S. is often claimed to be a means for foreign issuers to commit to better governance (e.g., Coffee, 1999). There is some evidence that the announcement of an American Depositary Receipt (ADR) has a positive and significant effect (Miller, 1999), which becomes larger for firms from countries with weaker shareholder protection (Lins et al., 2001). These results would seem to indicate that convergence to a better corporate governance is possible through a cross-listing, and that it creates firm value. To measure the importance of cross-listings as an alternative way to import improved corporate governance, for each industry and country we identify the firms listed on a U.S. exchange, either through a direct listing or an ADR, and compute the percent of listed firms each year. We use this fraction as an explanatory variable in the regression. Our hypothesis is that industries will be more valuable the more firms list abroad.

Our specification offers two additional advantages. Unlike La Porta et al. (2002), who have to estimate a random effect model because of the time invariance of the corporate governance measures, we specify the more natural industry-year fixed effect model. In addition, because of the availability of time-varying industry data, our results are interpretable in a time-series setting. That is, the vector of coefficients  $\beta$  indicates to what extent a change in the corporate governance indices in industry  $j$ , country  $i$ , from time  $t - 1$  to  $t$ , determine the change in the Tobin's Q of the industry in the next period.

### 5.1.1 Results

Table 3 reports the result of the estimation when the dependent variable is the Tobin's Q of the industry of the target firms. The independent variables in the estimation are the corresponding

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<sup>7</sup>In countries with concentrated ownership—all except the U.S., Canada, and the U.K.—control changes are often not by public acquisition. See Dyck and Zingales (2004) and Bris et al. (2007), for an analysis of takeover laws and their effect on merger activity.

corporate governance indicators for the average acquirer in that industry, the average of the corporate governance index differences between the acquirer and the target, and a decomposition of these variables between positive and negative values. We also control for the shareholder protection and the accounting standards of the target firm's country.

Our results show that shareholder protection improving cross-border mergers increase industry value. We find that the Tobin's Q of the target industry is higher the better the protection provided in the country of origin of acquiring firms.

[INSERT TABLE 3]

The Tobin's Q of the target industry is higher the larger the difference in protection between the acquiring and the target firms. However, this result is not statistically significant. We obtain similar results for accounting standards. Therefore, it seems in principle that changes in corporate governance induced by cross-border mergers bring about a valuation effect in the industries involved, consistent with the firm-specific results presented by Bris and Cabolis (2008). There is a positive and significant effect of cross-listings. In model I, a 10 percent increase in the number of cross-listed firms in the industry, increases Tobin's Q by about one percent. This result is statistically significant at the 10 percent probability level.

## 6 Improvements and Deteriorations in Corporate Governance

In this section we differentiate cross-border mergers based on the relative corporate governance indices of the acquirer and the target. Specifically, we decompose the industry corporate governance indices into positive and negative values. A positive value means that the average corporate governance quality of the target industry improves as a result of cross-border mergers. Similarly, a negative value means that the average acquirer comes from a country with a lower value of the corresponding index.

In Table 4 we present the results of our panel estimation. In contrast to Table 3, we now find significant effects of corporate governance changes. In particular, when we consider only the industries where the difference in shareholder protection between the acquirer and the target is positive, the estimated coefficient is 0.046, significant at the 10 percent level. The economic significance of such an effect can be substantial. To illustrate, consider the Telecommunications industry in South Korea. South Korea has a shareholder protection index of 10.7, a value below the median. Suppose that 20 percent of the firms in that industry were acquired in 1998 by Spanish firms. Spain has a shareholder protection index of 25, a value that is above the median.

Therefore, the shareholder protection index of the Telecommunications industry in 1998 in South Korea increases by 0.2 points, and, from the regression in Table 4, the Tobin's Q of the industry would increase by 0.9 percent. Note that this result is independent of the quality of the firms involved and depends only on the relative qualities of corporate governance in the home countries of acquiring and target firms.

We also find that adopting better accounting standards significantly increases industry value. In model II, the coefficient of the "Accounting Standards Difference if >0" is 0.059, significant at the 10 percent level. In economic terms, the coefficient means that increasing the domestic industry accounting standards by 0.2 (acquisition of 20 percent of the firms in the industry by firms coming from better governance environments) leads to an increase in Tobin's Q of 1.2 percent.

[INSERT TABLE 4]

The valuation effects of changes in shareholder protection are not symmetric. That is, while we find that increases in the level of shareholder protection increase the value of the industry in which the target firm operates, it is not true that reductions in the level of protection harm target industries.

With respect to accounting standards however, we do find a highly significant impact of reduction in accounting standards on industry valuation. In fact, when 20% of the industry value is acquired by firms coming from countries with weaker accounting standards, the Tobin's Q of the industry actually increases by 1.6%. We show in the next section that this result is driven by a non-linear relationship between accounting standard changes and Tobin's Q.

### **6.1 Results by OECD membership**

We now consider which countries benefit most from improvements in corporate governance induced by cross-border mergers. We classify the country of origin of the target firms by OECD membership, a proxy for economic development which does not depend on subjective classification such as groupings based on GDP per capita.

In our sample, we have 21 OECD members,<sup>8</sup> and 20 non-OECD members<sup>9</sup>. For the non-OECD members, we find a positive statistically insignificant effect of improvements of shareholder

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<sup>8</sup> Australia, Austria, Belgium, Canada, Denmark, France, Germany, Greece, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, South Korea, Spain, Sweden, Switzerland, Turkey, U.S.A., and the U.K.

<sup>9</sup> Argentina, Brazil, Chile, Colombia, Egypt, Hong Kong, India, Indonesia, Ireland, Israel, Malaysia, Pakistan, Peru, Philippines, Singapore, South Africa, Taiwan, Thailand, Venezuela, and Zimbabwe.

protection, and a negative significant effect of deteriorations in shareholder protection. The latter result implies that, when 20% of the value of the industry in a non-OECD country is acquired by firms coming from countries with lower levels of shareholder protection, the industry's Q drops by 3.5%. Conversely, we find a positive significant valuation effect of deteriorations in accounting standards, for non-OECD members. In economic terms, when 20% of an industry in a non-OECD country is acquired by firms coming from countries with below-median accounting standards, the Tobin's Q of the industry increases by 16.4%. In a (non-reported) regression with individual countries we find that this result is caused by acquisitions in Ireland.

[INSERT TABLE 5]

## 6.2 *Industry Concentration and Corporate Governance*

The valuation effect that we identify in the previous sections derives from a spillover to the whole industry of the benefits of improving corporate governance in a single firm. One reason for such an effect is that unmerged firms tend to imitate the improved corporate governance of target firms and benefit from doing so. Alternatively, competitive effects also predict that, without being forced to improve their governance, unmerged firms would nevertheless enjoy the benefits of the cross-border merger because it would allow them to increase their output. Therefore, spillover effects depend ultimately on competitive forces. We do not have an empirical test for the imitation hypothesis, other than a case-by-case examination of corporate governance reforms. However, we can analyze the effect of the competitive structure of the industry on the valuation effects of international mergers.

[INSERT TABLE 6]

For each industry-country-year in our sample, we proxy competition with the Herfindahl index. In Table 6 we re-estimate our panel regressions using an interactive term between industry concentration and corporate governance. Irrespective of which proxy for concentration we use, the sign of the interaction is positive (a negative coefficient when there are governance deteriorations is evidence of a positive effect), but results are not statistically significant. This result is consistent with the *industry competition* hypothesis which predicts that cross-border mergers always result in increases in profitability irrespective of the number of firms that are acquired. However, we cannot make a conclusive statement on the transmission mechanism between corporate governance improvements at the single-firm level, and overall industry valuation effects.

### 6.3 *Possible nonlinearities*

As in the previous section, the effects of industry concentration suggest a non-linearity in the relationship between corporate governance improvements and valuation effects. If 90% of the market capitalization of an industry is acquired by foreign companies that bring a much better level of corporate governance, the direct effect on industry value will be large. Similarly for industries not exposed to foreign entrants, where only one of the firms is acquired by a foreigner, the spillover effects can be sizeable as well. However, for intermediate acquisition volumes, the market concentration effect partly offsets the benefits of improving the average corporate governance in the industry.

[INSERT TABLE 7]

We test this hypothesis by computing the square value of the corporate governance indices that we use in the previous analyses, and we report the results in Table 7. Once we control for nonlinearities, the relationship between improvements in shareholder protection and accounting standards, and Tobin's Q, is positive and statistically significant. The magnitude of the effect of shareholder protection and accounting standards is very similar.

The effect of accounting standard deteriorations reported in Table 3 (which results in an increase in Tobin's Q) is due to a non-linear relationship between accounting standard changes and Tobin's Q. Model I shows a significant concavity, which suggests there exists a level of accounting standards for which further deterioration has no effect on the industry's Tobin's Q.

### 6.4 *Results by Industry*

Finally, we provide results by industry, exploiting the cross-sectional variation in our sample. In Table 8 we report the estimated coefficients in regressions similar to Table 4, by industry group. The positive valuation effect of improvements in shareholder protection is most evident in a few industries – Construction & Materials, Healthcare Equipment & Services, Pharmaceuticals and Biotechnology, and Steel. Common to these industries is the need for significant up-front investment in capital goods or in R&D and we conjecture that such circumstances make most important the shareholders' ability to hold management accountable for its actions. Likewise, the positive valuation effects of improvements in accounting standards are driven by: Construction & Materials, Media, Mobile Telecommunications, Tobacco, Travel & Leisure. Construction is an industry notoriously linked with side-payments and we conjecture that improved accounting standards may play a significant role in limiting this and other black market practices. Similarly, accounting standards may be particularly important in industries such as Media and Leisure where the finished

product is intangible and of potentially subjective value. Interestingly, even though the coefficient of “Difference in Accounting Standards if  $<0$ ” is negative and significant for the whole sample, it is positive and significant for only two industries - Diversified Industrials, and Electronic & Electrical Equipment. The task of generating and testing rigorous hypotheses on these cross-industry effects we leave to future research.

[INSERT TABLE 8]

## 7 Robustness Issues

### 7.1 *Alternative measures of Corporate Governance Quality*

Our study relies on the corporate governance indices developed in La Porta et al. (1998) and inevitably is subject to identified weaknesses of those indices. For example, the Daimler-Chrysler merger led to the new company being domiciled in Germany, requiring the company to implement a two-tier board structure, yet La Porta et al. (1998) report that the index of shareholder protection in Germany is lower than the one in the U.S. The index-based conclusion that the merger was corporate governance quality reducing for Chrysler could be questioned in this case. Another reasonable concern is that the LLSV index are time invariant and computed from 1998 only, while our dataset spans the period 1990-2001. We therefore use two alternative indices of governance quality.

First, we employ the adjusted LLSV index constructed by Pagano and Volpin (2005) (The “PV index”), using questionnaires.<sup>10</sup> Second, we consider the World Bank Indicator of Rule of Law. This index is one of the World Bank Worldwide Governance Indicators (WGI), available for 212 countries and territories over the period 1996–2006. As we use an earlier period, we extrapolate the 1996 indices back to 1990. Additionally, because the World Bank data does not cover all years between 1996 and 2001, we assume for each year without data the value of the index from the previous year. In this way we construct a somewhat time-varying index of corporate governance quality that takes into account dynamic regulatory reform.<sup>11</sup> It measures the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence.

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<sup>10</sup>For details on the construction of the index, see [http://www.e-aer.org/data/sept05\\_data\\_snyder.zip](http://www.e-aer.org/data/sept05_data_snyder.zip)

<sup>11</sup>The correlation matrix in the Appendix shows that this measure is positively and significantly correlated with the LLSV indices.

We construct similar measures to the differences described in Section 4. For the PV Index we classify countries into two groups for which the value of the index is above (+1) or below (-1) the median. We then weight the +1/ - 1 differences by the dollar value of the acquisition, and standardize by the market capitalization of the industry. For the Rule of Law Index we compute, for each industry, a weighted average of the differences in the index between the acquirer and the target countries, where the weight is the dollar value of the acquisition. We standardize the difference by the market capitalization of the industry.

The advantage of our approach is that the two indices are time-varying. However, they are both based on purely legal variables that ignore the role of enforcement. The Rule of Law Index is based on the quality of the written law alone, and the PV Index is based on the LLSV Antidirector Rights Index, which is a summary of the legal provisions related to shareholder protection. In some countries there is a great difference between what merger regulations say and what the common practice is.

[INSERT TABLE 9]

We report results in Table 9. We confirm our previous results and show a positive relationship between governance quality and industry's Tobin's Q. Model IV also shows that governance deteriorations are significantly related to reductions in industry value.

## **7.2 *Alternative Explanations. The role of Financial Constraints***

The previous sections show that cross-border mergers result in an increase in industry value, and that such an increase is larger the better the governance of the acquiring firm, relative to the target industry. We find support for the hypothesis that there are spillover effects in corporate governance reform that benefit other firms in the same industry.

An alternative explanation could be that cross-border mergers are an efficient way for firms in an industry to reduce their financial dependence on external sources of capital. If the availability of capital is limited in a country, having one firm being acquired by a foreign firm with available capital could make the target firm more valuable. Additionally, it could free up capital to be used by domestic, non-target firms which would also enjoy positive valuation effects.

We test this hypothesis by collecting data on firm's financial dependence. Unfortunately, the standard measure in the literature, based on Rajan and Zingales' (1998) U.S. study, provides a measure of financial dependence only for manufacturing firms. In our paper, it can be used in only four of the 39 industries we consider. The Rajan and Zingales (1998) approach has been extended

to all industries using regression analysis. The methodology consists of estimating financial dependence as a linear combination of firm characteristics. However, one of these characteristics is Tobin's Q, which is the endogenous variable in our regressions.

Almeida and Wolfenzon (2005) construct a country-specific measure of financial dependence, based on Rajan and Zingales (1998). For each country in their sample they compute the percentage of output produced by manufacturing industries. Then they calculate the weighted average of the Rajan and Zingales (1998) industry measures. The advantage of the Almeida and Wolfenzon (2005) EFN Index is that it proxies financial dependence for all industries. It has the disadvantage that it is not industry specific.

[INSERT TABLE 10]

In Table 10 we interact measures of governance improvement with the EFN Index of financial dependence. If our results were caused by more dependent firms benefiting more from cross-border mergers, then the interaction would have a positive coefficient. We find the opposite: in model I, the interaction between EFN Index and Negative Difference in Shareholder Protection has a positive coefficient, which suggests a negative effect. In model II, the interaction between EFN Index and Positive Difference in Accounting Standards displays a negative coefficient as well. Overall, we do not find evidence of a role for financial constraints, at least based on the proxies that we have available.

## 8 Interpretation of the Results

This paper presents evidence that firm-specific improvements in corporate governance induced by cross-border mergers improve the corporate governance of the whole industry and that this is positively valued by the market. In general, target firms in a weaker corporate governance environment relative to the acquiring firms, adopt the better practices because of a change in the country of incorporation of the firm. The converse is not true: when the target firm is bought by a firm from a less protective country, the market valuation of the target firm's industry does not decrease.

The quality of the accounting standards in the firms involved in a cross-border merger matter. In principle, a transfer of nationality of the target firm implies a change in the accounting standards, by default. In section 5.5.1.1 we find some weak evidence that importing good accounting standards increases the Tobin's Q of the target industry. We have noted that opting into a particular standard during merger negotiations is fairly easy, and the merging parties may even choose accounting

standards that are different from the ones in either the acquirer’s or the target’s country—the most common choice being either U.S. GAAP or I.A.S. Hence, it is not surprising that the evidence we find regarding accounting standards is not conclusive.

We claim that changes in corporate governance have an impact on the whole industry of the target firm. We acknowledge the potential problems of dealing with industries rather than with firms directly. Initially, if the governance of one firm improves as a consequence of the cross-border acquisition, it is plausible that rival firms in the same industry suffer a loss in value as they lose out to the better governed merged firm as it attracts investors. The average industry value could then decrease as a consequence of the merger. Our results are not consistent with this explanation. Akhigbe and Martin (2000) do find evidence in favor of value reductions: they show that domestic competitors of cross-border acquisition targets in the U.S. experience a significant increase in stock price upon the announcement of the merger.<sup>12</sup> This suggests that the merger is value-reducing for the target firm. And these mergers are, at most, corporate governance preserving transactions, because acquirers come from less - or equally - protective regimes.

Whatever the transmission mechanism is, we concentrate on industry-wide effects rather than firm-specific effects. Our analysis of the country-wide benefits of cross-border mergers enables us to draw implications for public policy. In fact, our results at the industry level show that cross-border mergers are Pareto improving. We do not find evidence that the value of an industry reduces as the result of a corporate governance improving acquisition. Quite the opposite, there is strong evidence that the *whole industry* benefits from the corporate governance improvements affecting some firms in an industry. We argue that when some firms improve corporate governance, competitors are also induced to improve to avoid being dominated themselves.

## 9 Conclusion

This paper presents evidence showing that improvements in corporate governance are positively valued by the market. We consider the changes in corporate governance induced by cross-border mergers. For each of 39 industries in 41 different countries over the period 1990–2001, we construct measures of the corporate governance quality of the industry considering the cross-border mergers *by* and *of* firms in that industry. Two corporate governance indicators are considered: shareholder protection and accounting standards. In the absence of cross-border mergers we assign no change

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<sup>12</sup>The effects of corporate events of rival firms have been studied extensively: for stock repurchases, Hertzell (1991); for bankruptcy announcements, Lang and Stulz (1992); for dividend announcements, Laux et al. (1998); for corporate capital investment, Chen et al. (2002); for mergers and acquisitions, Eckbo (1985), among others.

in corporate governance quality at the firm level. For each cross-border acquisition, we calculate the difference in corporate governance measured by each indicator, between the countries of the acquiring and targeted firms. We weight these differences by dollar value of the acquisition and aggregate across industries, countries, and years. We then investigate the relationship between corporate governance quality changes and Tobin's Q at the industry level.

Our main result is that acquisitions of firms in weaker shareholder protection countries by firms in stronger protective regimes significantly increase the Tobin's Q of the target industry. This result is robust to country, year, and industry characteristics. However, targets acquired by firms from worse corporate governance environments do not lose value.

Our results do not suggest that corporate governance is a motive for cross-border acquisitions and we have no evidence that acquirers necessarily target firms from worse corporate governance countries. Quite the contrary, our study finds that acquiring firms do not gain or lose value by merging with firms that provide weaker protection to investors and poorer accounting standards. Why these mergers happen remains an unanswered question beyond the scope of this paper.<sup>13</sup>

Another area for future research is the study of the specific characteristics of cross-border mergers that affect industry value. In this paper, we control for the value of the cross-border acquisitions affecting a particular industry, and show that this variable has a positive valuation effect for the target industry. Exploring the factors behind these costs and benefits, and documenting the differences between domestic and cross-border mergers, merits further attention.

[INSERT APPENDIX]

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<sup>13</sup>As Alexander (2000) indicates, there can be several reasons why firms undertake cross-border mergers: intensive consolidation or preempting restructuring, battle for scale driven by structural pressures, response to technological changes, increases in scale to market, the need to advertise globally, exhaustion of the domestic merger route, and the opportunity to gain a foothold in new markets.

## References

- Akhigbe, A., Martin, A.D., 2000. Information–signalling and competitive effects of foreign acquisitions in the U.S.. *Journal of Banking & Finance* 24, 1307-1321.
- Alexander, L., 2000. Corporate Governance and Cross–Border Mergers. Conference Board Research Report 1273-00-RR.
- Almeida, H., Wolfenzon, D., 2005. The effect of external finance on the equilibrium allocation of capital. *Journal of Financial Economics* 75, 133-164.
- Andrade, G., Mitchell, M., Stafford, E., 2001. New Evidence and Perspective on Mergers, *Journal of Economic Perspectives* 15, 103-120.
- Beck, T., Levine, R., 2002. Industry Growth and Capital Allocation: Does Having a Market- or Bank-Based System Matter? *Journal of Financial Economics* 64, 147-180.
- Bergman, N., Nicolaievsky, D., 2007. Investor Protection and the Coasian View. *Journal of Financial Economics* 84, 738-771.
- Bris, A., Brisley, N., 2007. A Theory of Optimal Expropriation, Mergers, and Industry Competition. Working paper.
- Bris, A., Cabolis, C., 2007. Corporate Governance Convergence Through Cross-Border Mergers: The Case of Aventis. In Greg N. Gregoriou and Luc Renneboog , eds., *International Mergers and Acquisitions Activity Since 1990: Quantitative Analysis of Recent Research*, Elsevier.
- Bris, A., Cabolis, C., Janowski, V., 2007. The Effect of Merger Laws on Merger Activity: International Evidence. In Greg N. Gregoriou and Luc Renneboog , eds., *International Mergers and Acquisitions Activity Since 1990: Quantitative Analysis of Recent Research*, Elsevier.
- Bris, A., Cabolis, C., 2008. The Value of Investor Protection: Firm Evidence from Cross-Border Mergers. *Review of Financial Studies*, forthcoming.
- Chen, Sheng-Syan; Ho, Lan-Chih; Shih, Yi-Cheng, 2002. Intra-industry effects of corporate capital investments. Working paper.
- Claessens, S., Laeven, L. 2003. Financial Development, Property Rights, and Growth, *Journal of Finance* 58, 2401-2436.

- Coffee, J.C., 1999. The Future as History: The Prospects for Global Convergence in Corporate Governance and its Implications. The Center for Law and Economic Studies, Columbia University School of Law Working Paper No. 144.
- Cremers, K.M., Nair, V., 2005. Governance Mechanisms and Equity Prices. *Journal of Finance* 60, 2859-2894.
- Daines, R., 2001. Does Delaware Law improve firm value? *Journal of Financial Economics* 62, 525-558.
- Demirgüç-Kunt, A., Maksimovic, V., 1998. Law, Finance and Firm Growth. *Journal of Finance* 53, 2107-2137.
- Demirgüç-Kunt, A., Maksimovic, V., 1999. Institutions, Financial Markets and Firm Debt Maturity. *Journal of Financial Economics* 54, 295-336.
- Doidge, C., Karolyi, G. A., Stulz, R.M., 2007. Why Do Countries Matter So Much For Corporate Governance? *Journal of Financial Economics* 86, 1-39.
- Dyck, A., Zingales, L., 2004. Private Benefits of Control: An International Comparison. *Journal of Finance* 59, 537-600.
- Eckbo, B.E., 1982. Horizontal mergers, collusion, and stockholder wealth. *Journal of Financial Economics* 11, 241-273.
- Eckbo, B.E., 1985. Mergers and the Market Concentration Doctrine: Evidence from the Capital Market. *Journal of Business* 58, 325-349.
- Gertner, R., Powers, E., Scharfstein, D., 2002. Learning about Internal Capital Markets from Corporate Spinoffs, *The Journal of Finance* 57, 2479-2506.
- Glaeser, E., Johnson, S., Shleifer, A., 2001. Coase versus The Coasians. *The Quarterly Journal of Economics* 116, 853-899.
- Gompers, P.A., Ishi, J.L., Metrick, A., 2003. Corporate Governance and Equity Prices, *Quarterly Journal of Economics* 118, 107-155.
- Hertzel, M.G., 1991. The Effects of Stock Repurchases on Rival Firms. *The Journal of Finance* 46, 707-716.
- Himmelberg, C., Hubbard, R.G., Love, I., 2002. Investor Protection, Ownership, and the Cost of Capital. World Bank Working Paper Series No. 2834, Washington, D.C.

- Hyttinen, A., Kuosa, I., Takalo, T., 2003. Law or finance? Evidence from Finland. *European Journal of Law and Economics* 16, 59-89.
- Johnson, S., Boone, P., Breach, A., Friedman, E., 2000. Corporate Governance in the Asian Financial Crisis. *Journal of Financial Economics* 58, 141-186.
- Kaplan, S.N., Zingales, L., 1997. Do investment-cash flow sensitivities provide useful measures of financing constraints? *Quarterly Journal of Economics* 112, 169-216.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 1998. Law and Finance, *Journal of Political Economy* 106, 1113-1147.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 2000. Investor Protection and Corporate Governance, *Journal of Financial Economics* 58, 3-27.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 2002. Investor Protection and Corporate Valuation. *The Journal of Finance* 57, 1147-1170.
- Lang, L., Stulz, R., 1992. Contagion and competitive intra-industry effects of bankruptcy announcements. *Journal of Financial Economics* 32, 45-60.
- Laux, P.A., Starks, L., Yoon, P., 1998. The relative importance of competition and contagion in intra-industry information transfers: An investigation of dividend announcements. *Financial Management* 27, 5-16.
- Lins, K.V., Strickland, D., Zenner, M., 2001. Do Non-U.S. Firms Issue Equity on U.S. Exchanges to Relax Capital Constraints? *The Journal of Financial and Quantitative Analysis* 40, 2005, 109-133.
- Martynova, M., Renneboog, L., 2008. Spillover of Corporate Governance Standards as a Takeover Synergy in Cross-Border Mergers and Acquisitions. Working paper.
- Miller, D., 1999. The market reaction to international cross listing: evidence from depository receipts , *Journal of Financial Economics* 51, 103-123.
- Mitchell, M.L., Mulherin, J.H., 1996. The impact of industry shocks on takeover and restructuring activities. *Journal of Financial Economics* 41, 193-229.
- Mørck, R., Yeung, B., Yu, W., 2000. The Information Content of Stock Markets: Why do Emerging Markets have Synchronous Price Movements? *Journal of Financial Economics* 58, 215-260.

- Pagano, M., Volpin, P., 2005. The Political Economy of Corporate Governance. *American Economic Review* 95, 1005-1030.
- Pagano, M., Volpin, P., 2006. Alfred Marshall Lecture: Shareholder Protection, Stock Market Development, and Politics, *Journal of the European Economic Association* 4, 315-341.
- Pistor, K., 2006. Patterns of legal change: shareholder and creditor rights in transition economies. In Merritt B. Fox and Michael A. Heller, eds, *Corporate Governance Lessons from Transition Economy Reforms*, Princeton University Press.
- Rajan, R., Zingales, L., 1998. Financial dependence and growth. *American Economic Review* 88, 559-573.
- Rossi, S., Volpin, P., 2004. Cross-Country Determinants of Mergers and Acquisitions. *Journal of Financial Economics* 74, 277-304.
- Stigler, G.J., 1964. A Theory of Oligopoly. *The Journal of Political Economy* 72, 44-61.
- Woolridge, J.R., Snow, C.C., 1990. Stock Market Reaction to Strategic Investment Decisions. *Strategic Management Journal* 11, 353-363.
- Wurgler, J., 2000. Financial Markets and the Allocation of Capital. *Journal of Financial Economics* 58, 187-214.

**Table 1.**  
**Merger Activity Around the World**

The following table provides measures of Merger Intensity by geographical region and time period. We measure the dollar Value of Acquisitions relative to the Total Market Capitalization, and the Number of Acquisitions relative to the Number of Listed Firms. Value of Acquisition is calculated as the amount paid for all common stock, common stock equivalents, preferred stock, debt, options, assets, warrants, and stake purchases made within six months of the announcement date of the transaction excluding fees and expenses. Liabilities are included if their value has been publicly disclosed. The common stock used as payment in an acquisition is valued at the closing price of the last full trading day before the announcement of the stock swap's terms. In the case of a change in the exchange ratio of shares offered, the stock is valued according to the closing price of the last full trading date. The number of listed firms is the number of firms with available stock price information in Datastream. The sample includes all the completed acquisitions of 100% interest in a public company available in the Securities Data Corporation, from January 1, 1990 to December 31, 2001. The sample does not include LBOs, spinoffs, recapitalizations, self-tender and exchange offers, repurchases, minority stake purchases, acquisitions of remaining interest, and privatizations.

	<b>1990-1994</b>				<b>1995-2001</b>			
	<b>All Mergers</b>		<b>Cross-Border</b>		<b>All Mergers</b>		<b>Cross-Border</b>	
	\$ Value	Number	\$ Value	Number	\$ Value	Number	\$ Value	Number
Africa	0.60%	3.27%	0.27%	0.86%	2.07%	9.98%	0.55%	2.39%
Asia	0.37%	1.46%	0.03%	0.48%	1.02%	3.43%	0.15%	0.93%
North America	2.63%	17.92%	0.45%	2.25%	7.42%	35.12%	1.43%	5.12%
Oceania	2.24%	12.98%	1.05%	5.55%	3.17%	24.05%	1.48%	7.55%
Central and South America	0.04%	3.92%	0.02%	2.94%	0.84%	8.71%	0.69%	6.47%
Western Europe - Eurozone	1.81%	15.55%	0.69%	5.04%	3.97%	15.87%	2.08%	6.09%
Western Europe - No Euro	1.49%	5.65%	0.96%	3.25%	2.14%	6.77%	0.76%	4.72%
All countries	1.19%	12.25%	0.27%	2.58%	4.47%	17.82%	1.26%	4.24%

**Table 2.**  
**Cross-Border Mergers and Corporate Governance Quality Transfer**

This table classifies the corporate governance quality transfer for each cross-border merger in our sample. We obtain the corporate governance index for the country of nationality of both the acquiror and target from La Porta et al. (1998). We classify each country into one of two categories: “Above the median” and “Below the median” for each of the four indices. An acquisition is classified as “Corporate Governance Worsening” if the acquiror’s corresponding index is below the median while the target’s is above the median; “Corporate Governance Improving” if the acquiror’s corresponding index is above the median while the target’s is below the median; and “Corporate Governance preserving” otherwise. The table reports the number as well as the percentage of the cross-border mergers which are Corporate Governance Worsening, Preserving and Improving for each index and sub-period. The sample includes all the completed acquisitions of 100% interest in a public company available in the Securities Data Corporation, from January 1, 1990 to December 31, 2001. The sample does not include LBOs, spinoffs, recapitalizations, self-tender and exchange offers, repurchases, minority stake purchases, acquisitions of remaining interest, and privatizations.

		<b>1990-1994</b>			<b>1995-2001</b>		
		Worsening	Preserving	Improving	Worsening	Preserving	Improving
Shareholder Protection	Number of Acquisitions	449	2,124	602	1,523	5,454	1,422
	Percent	14.14%	66.90%	18.96%	18.13%	64.94%	16.93%
Accounting Standards	Number of Acquisitions	370	2,232	573	1,310	5,557	1,532
	Percent	11.65%	70.30%	18.05%	15.60%	66.16%	18.24%

**Table 3.**  
**Tobin's Q and Corporate Governance Quality of Target Firms**

This table presents regressions of Tobin's Q (in logs) by industry, country, and year, on corporate governance indices. Each acquisition is characterized by the corporate governance characteristics of the acquiring and target firms. We consider the indices of shareholder protection and accounting standards, from La Porta et al. (1998). We classify countries either as "Above the median" or "Below the median" for each index. Each country index equals 1 if it is "Above the median", and zero otherwise. Each characteristic index difference is calculated for each acquisition as the corporate governance index of the acquirer, minus that of the target. We then calculate the weighted average of the indices by industry, country and year, where each observation is weighted by the dollar value of the acquisition. The sample covers 1990-2001 and includes 39 industries in 41 countries. Standard errors are adjusted for heteroskedasticity. All regressions are estimated with industry-year fixed effects, and country-random effects.

	(I)	(II)	(III)
Constant	0.366** [2.05]	0.365** [2.04]	0.365** [2.04]
Industry Herfindahl Index	0.003 [0.22]	-0.01 [0.88]	-0.011 [0.96]
Percent of Firms in Industry with ADR or cross-listing	0.088* [1.76]	0.112** [2.24]	0.112** [2.22]
Total Value of Cross-Border M&A / Market Capitalization Industry	-0.008 [0.20]	0.042 [1.04]	0.033 [0.82]
Number of Firms in Industry / 100	-7.1 [0.52]	15.246 [1.15]	16.035 [1.21]
Shareholder Protection Index - Acquirer Country	0.053* [1.93]		
Shareholder Protection Index - Target Country	-0.023 [0.66]		
Accounting Standards - Acquirer Country	-0.03 [0.99]		
Accounting Standards - Target Country	0.070* [1.91]		
Difference in Shareholder Protection (Acquirer minus Target)		0.005 [0.22]	
Difference in Accounting Standards (Acquirer minus Target)			-0.023 [1.01]
Observations	6,909	6,909	6,909
Number of Countries	41	41	41
R-squared within	0.24	0.24	0.24
R-squared between	0.38	0.32	0.32
R-squared total	0.22	0.22	0.22

Absolute value of z statistics in brackets

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 4.**  
**Tobin's Q and Corporate Governance Quality of Target firms**  
**Improvements and Deteriorations in Corporate Governance**

This table presents regressions of Tobin's Q (in logs) by industry, country, and year, on corporate governance indices. Each acquisition is characterized by the corporate governance characteristics of the acquiring and target firms. We consider the indices of shareholder protection and accounting standards from La Porta et al. (1998). We classify countries either as "Above the median" or "Below the median" for each of the four indices. Each index equals 1 if it is "Above the median", and zero otherwise. The index difference is calculated for each acquisition as the index of the acquirer, minus that of the target. We then calculate the weighted average of the indices by industry, country and year, where each observation is weighted by the dollar value of the acquisition. The sample extends between 1990 and 2001 and includes 39 industries in 41 countries. Standard errors are adjusted for heteroskedasticity. All regressions are estimated with industry x year fixed-effects, and country-random effects.

	(I)	(II)
Constant	0.365**	0.365**
	[2.04]	[2.04]
Industry Herfindahl Index	-0.01	-0.012
	[0.81]	[0.97]
Percent of Firms in Industry with ADR or cross-listing	0.110**	0.108**
	[2.19]	[2.15]
Total Value of Cross-Border M&A / Market Capitalization Industry	0.026	0.002
	[0.62]	[0.04]
Number of Firms in Industry / 100	15.001	15.95
	[1.13]	[1.20]
Difference in Shareholder Protection if >0	0.046*	
	[1.81]	
Difference in Shareholder Protection if <0	-0.017	
	[0.65]	
Difference in Accounting Standards if >0		0.059*
		[1.76]
Difference in Accounting Standards if <0		-0.079***
		[2.58]
Observations	6,909	6,909
Number of Countries	41	41
R-squared within	0.24	0.24
R-squared between	0.31	0.34
R-squared total	0.22	0.22

Absolute value of z statistics in brackets

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 5.**  
**Tobin's Q and Corporate Governance Quality of Target firms**  
**OECD vs. Non-OECD Countries**

This table presents regressions of Tobin's Q (in logs) by industry, country, and year, on corporate governance indices. Each acquisition is characterized by the corporate governance characteristics of the acquiring and target firms. We consider the indices of shareholder protection and accounting standards from La Porta et al. (1998). We classify countries either as "Above the median" or "Below the median" for each of the four indices. Each index equals 1 if it is "Above the median", and zero otherwise. The index difference is calculated for each acquisition as the index of the acquirer, minus that of the target. We then calculate the weighted average of the indices by industry, country and year, where each observation is weighted by the dollar value of the acquisition. The sample extends between 1990 and 2001 and includes 39 industries in 41 countries. Standard errors are adjusted for heteroskedasticity. All regressions are estimated with industry x year fixed-effects, and country-random effects.

	Non-OECD Countries		OECD Countries	
	(I)	(II)	(III)	(IV)
Constant	-0.379	-0.361	0.362**	0.362**
	[0.76]	[0.72]	[2.45]	[2.45]
Industry Herfindahl Index	-0.097***	-0.099***	0.023*	0.022*
	[3.47]	[3.56]	[1.87]	[1.80]
Percent of Firms in Industry with ADR or cross-listing	0.189**	0.131	0.096*	0.099*
	[1.96]	[1.33]	[1.74]	[1.80]
Total Value of Cross-Border M&A / Market Capitalization Industry	0.094	-0.032	-0.047	-0.05
	[0.62]	[0.21]	[1.26]	[1.33]
Number of Firms in Industry / 100	2.52***	2.62***	1.579	1.73
	[2.69]	[2.80]	[0.14]	[0.15]
Difference in Shareholder Protection if >0	-0.02		0.039	
	[0.19]		[1.10]	
Difference in Shareholder Protection if <0	0.175*		-0.023	
	[1.88]		[0.98]	
Difference in Accounting Standards if >0		0.024		0.047
		[0.19]		[1.38]
Difference in Accounting Standards if <0		-0.166*		-0.037
		[1.83]		[1.28]
Observations	2,294	2,294	4,615	4,615
Number of Countries	20	20	21	21
R-squared within	0.35	0.34	0.34	0.34
R-squared between	0.77	0.79	0.06	0.06
R-squared total	0.35	0.35	0.31	0.31

Absolute value of z statistics in brackets

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 6.**  
**Tobin's Q and Corporate Governance Quality of Target firms**  
**Impact of Industry Concentration**

This table presents regressions of Tobin's Q (in logs) by industry, country, and year, on corporate governance indices. Each acquisition is characterized by the corporate governance characteristics of the acquiring and target firms. We consider the indices of shareholder protection and accounting standards, from La Porta et al. (1998). We classify countries either as "Above the median" or "Below the median" for each of the four indices. Each index equals 1 if it is "Above the median", and zero otherwise. The index difference is calculated for each acquisition as the index of the acquirer, minus that of the target. We then calculate the weighted average of the indices by industry, country and year, where each observation is weighted by the dollar value of the acquisition. The sample extends between 1990 and 2001 and includes 39 industries in 41 countries. Standard errors are adjusted for heteroskedasticity. All regressions are estimated with industry x year fixed-effects, and country-random effects.

	(I)	(II)	(III)	(IV)
Constant	0.365** [2.04]	0.366** [2.04]	0.365** [2.04]	0.365** [2.04]
Industry Herfindahl Index	-0.01 [0.79]	-0.014 [1.15]	-0.011 [0.90]	-0.01 [0.87]
Percent of Firms in Industry with ADR or cross-listing	0.111** [2.21]	0.108** [2.14]	0.112** [2.24]	0.112** [2.24]
Total Value of Cross-Border M&A / Market Capitalization Industry	0.045 [1.10]	0.021 [0.51]	0.042 [1.05]	0.037 [0.94]
Number of Firms in Industry / 100	15.373 [1.16]	15.471 [1.17]	14.338 [1.05]	15.377 [1.13]
Herfindahl Index x Increase in Shareholder Protection	0.029 [0.33]			
Herfindahl Index x Decrease in Shareholder Protection	0.032 [0.67]			
Herfindahl Index x Increase in Accounting Standards		0.095 [1.04]		
Herfindahl Index x Decrease in Accounting Standards		-0.06 [1.33]		
Number of Firms x Increase in Shareholder Protection			23.852 [0.30]	
Number of Firms x Decrease in Shareholder Protection			79.042 [0.42]	
Number of Firms x Increase in Accounting Standards				3.675 [0.04]
Number of Firms x Decrease in Accounting Standards				-160.553 [0.68]
Observations	6,909	6,909	6,909	6,909
Number of Countries	41	41	41	41
R-squared within	0.24	0.24	0.24	0.24
R-squared between	0.32	0.33	0.32	0.32
R-squared total	0.22	0.22	0.22	0.22

Absolute value of z statistics in brackets

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 7.**  
**Tobin's Q and Corporate Governance Quality of Target firms**  
**Non Linearities**

This table presents regressions of Tobin's Q (in logs) by industry, country, and year, on corporate governance indices. Each acquisition is characterized by the corporate governance characteristics of the acquiring and target firms. We consider the indices of shareholder protection and accounting standards, from La Porta et al. (1998). We classify countries either as "Above the median" or "Below the median" for each of the four indices. Each index equals 1 if it is "Above the median", and zero otherwise. The index difference is calculated for each acquisition as the index of the acquirer, minus that of the target. We then calculate the weighted average of the indices by industry, country and year, where each observation is weighted by the dollar value of the acquisition. The sample extends between 1990 and 2001 and includes 39 industries in 41 countries. Standard errors are adjusted for heteroskedasticity. All regressions are estimated with industry x year fixed-effects, and country-random effects.

		(I)	(II)
Constant	0.365**	0.365**	0.365**
	[2.04]	[2.04]	[2.04]
Industry Herfindahl Index	-0.012	-0.009	-0.011
	[1.04]	[0.75]	[0.93]
Percent of Firms in Industry with ADR or cross-listing	0.108**	0.108**	0.107**
	[2.15]	[2.15]	[2.12]
Total Value of Cross-Border M&A / Market Capitalization Industry	0.01	0.022	0
	[0.25]	[0.53]	[0.01]
Number of Firms in Industry / 100	15.718	13.226	14.615
	[1.18]	[0.99]	[1.10]
Difference in Shareholder Protection Acquirers minus Targets	0.044*		
	[1.82]		
Difference in Shareholder Protection - Squared	-0.013		
	[0.40]		
Difference in Accounting Standards Acquirers minus Targets	0.027		
	[0.85]		
Difference in Accounting Standards - Squared	0.075**		
	[2.27]		
Difference in Shareholder Protection if >0		0.441**	
		[1.97]	
Difference in Shareholder Protection if >0 - Squared		-0.217	
		[1.21]	
Difference in Shareholder Protection if <0		-0.256	
		[1.09]	
Difference in Shareholder Protection if <0 - Squared		-0.244	
		[1.01]	
Difference in Accounting Standards if >0			0.223*
			[1.79]
Difference in Accounting Standards if >0 - Squared			-0.183
			[0.97]
Difference in Accounting Standards if <0			-0.183
			[0.63]
Difference in Accounting Standards if <0 - Squared			-0.106
			[0.36]
Observations	6,909	6,909	6,909
Number of Countries	38	41	41
R-squared within	0.24	0.24	0.24
R-squared between	0.35	0.32	0.34
R-squared total	0.22	0.22	0.22

Absolute value of z statistics in brackets

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 8.**  
**Tobin's Q and Corporate Governance Quality of Target firms**  
**Results by Industry**

This table presents regressions of Tobin's Q (in logs) by industry, country, and year, on corporate governance indices. Each acquisition is characterized by the corporate governance characteristics of the acquiring and target firms. We consider the indices of shareholder protection and accounting standards, from La Porta et al. (1998). We classify countries either as "Above the median" or "Below the median" for each of the four indices. Each index equals 1 if it is "Above the median", and zero otherwise. The index difference is calculated for each acquisition as the index of the acquirer, minus that of the target. We then calculate the weighted average of the indices by industry, country and year, where each observation is weighted by the dollar value of the acquisition. The sample extends between 1990 and 2001 and includes 39 industries in 41 countries. Standard errors are adjusted for heteroskedasticity. All regressions are estimated with industry x year fixed-effects, and country-random effects.

	Difference in Shareholder Protection if >0		Difference in Shareholder Protection if <0		Difference in Accounting Standards if >0		Difference in Accounting Standards if <0	
Automobiles & Parts	0.003	(0.9943)	-0.074	(0.9271)	-0.009	(0.9871)	-0.167	(0.8610)
Beverages	0.022	(0.9613)	-0.154	(0.8453)	0.202	(0.2435)	-0.170	(0.8207)
Construction & Materials	0.246 **	(0.0111)	-0.091	(0.9000)	0.265 ***	(0.0000)	-0.158	(0.8669)
Diversified Industrials	-0.055	(0.9323)	-0.353	(0.7112)	-0.157	(0.8427)	0.691 ***	(0.0000)
Electricity Gas, Water	-0.131	(0.8692)	-0.337	(0.7353)	-0.085	(0.9152)	-0.256	(0.7951)
Electronic & Electrical Equipment	-0.080	(0.9147)	-0.003	(0.9952)	0.004	(0.9935)	0.209 ***	(0.0000)
Engineering	-0.083	(0.8958)	-0.120	(0.8965)	-0.057	(0.9280)	-0.152	(0.8702)
Food & Drug Retailers	0.002	(0.9973)	-0.231	(0.7955)	-0.127	(0.8607)	0.016	(0.9743)
Food Producers	-0.274	(0.7391)	-0.071	(0.9170)	-0.672	(0.3708)	-0.020	(0.9713)
Forestry & Paper	0.128	(0.1395)	-0.012	(0.9819)	0.080	(0.6879)	-0.022	(0.9673)
Household Goods	0.114	(0.5426)	-0.051	(0.9456)	0.114	(0.5488)	-0.076	(0.9262)
Healthcare Equipment & Services	2.706 ***	(0.0000)			-0.033	(0.9537)	-0.241	(0.8043)
Information Technology	-0.191	(0.8152)	0.038	(0.9206)	0.120	(0.6362)	-0.025	(0.9645)
Leisure Goods	0.032	(0.9398)	-0.067	(0.9220)				
Media	0.216	(0.1501)	-0.173	(0.8397)	0.259 ***	(0.0092)	-0.603	(0.5469)
Mining	0.140	(0.7335)	-0.098	(0.8721)	0.050	(0.9133)	0.228	(0.4865)
Oil & Gas Producers	-0.038	(0.9515)	-0.126	(0.8823)	0.031	(0.9355)	0.136	(0.3801)
Personal Goods	-0.150	(0.8441)			0.174	(0.6811)		
Pharmaceuticals and Biotechnology	0.220 *	(0.0593)	0.185 ***	(0.0003)	0.053	(0.8953)	0.164	(0.2608)
Real Estate	0.109	(0.7466)	-0.008	(0.9880)	0.109	(0.7466)	-0.008	(0.9880)
Retail Products	0.049	(0.9007)	-0.063	(0.9226)	0.141	(0.5206)	0.074	(0.8501)
Software & Computer Services	0.007	(0.9879)	0.012	(0.9791)	0.035	(0.9370)	-0.309	(0.7359)
Specialty Finance	-1.096 *	(0.0847)	-0.843	(0.3912)	-14.522 ***	(0.0000)		
Steel	0.231 ***	(0.0014)	-0.061	(0.9358)	0.008	(0.9861)	-0.034	(0.9570)
Support Service	-0.074	(0.9133)	-0.134	(0.8749)	0.102	(0.7146)	-0.225	(0.8093)
Mobile Telecommunications	-0.154	(0.8303)	-0.105	(0.8795)	0.383 ***	(0.0000)	-0.191	(0.7998)
Tobacco	-0.061	(0.9189)			9.824 ***	(0.0000)		
Travel & Leisure	0.174	(0.0206)	0.021	(0.9579)	0.190 ***	(0.0003)	-0.156	(0.8649)
Water	0.530	(0.1096)			-0.853	(0.3609)		
Overall	0.070 **	(0.0796)	-0.026	(0.3430)	0.077 *	(0.0511)	-0.084 ***	(0.0093)

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 9.**  
**Tobin's Q and Corporate Governance Quality of Target firms**  
**Alternative Measures of Corporate Governance**

This table presents regressions of Tobin's Q (in logs) by industry, country, and year, on corporate governance indices. We use two alternative indices of corporate governance quality. The "PV Shareholder Protection Index" is the modified LLSV index from Pagano and Volpin (2005). For details on the construction of the index, see [http://www.e-aer.org/data/sept05\\_data\\_snyder.zip](http://www.e-aer.org/data/sept05_data_snyder.zip). The "World Bank Rule of Law Index" measures the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence. Both indices are time varying. The sample extends between 1990 and 2001 and includes 39 industries in 41 countries. Standard errors are adjusted for heteroskedasticity. All regressions are estimated with industry x year fixed-effects, and country-random effects.

	(I)	(II)	(III)	(IV)
Constant	0.365**	0.365**	0.365**	0.365**
	[2.04]	[2.04]	[2.04]	[2.04]
Industry Herfindahl Index	-0.01	-0.01	-0.01	-0.011
	[0.87]	[0.86]	[0.88]	[0.90]
Percent of Firms in Industry with ADR or cross-listing	0.112**	0.112**	0.113**	0.120**
	[2.23]	[2.23]	[2.26]	[2.38]
Total Value of Cross-Border M&A / Market Capitalizat	0.04	0.04	0.037	0.039
	[1.01]	[1.01]	[0.92]	[0.98]
Number of Firms in Industry / 100	15.486	15.481	15.45	15.978
	[1.17]	[1.17]	[1.17]	[1.21]
Difference in WB Rule of Law	0.13*			
	[1.67]			
Difference in WB Rule of Law if Difference>0		0.012		
		[0.55]		
Difference in WB Rule of Law if Difference<0		0.015		
		[0.38]		
Difference in PV Shareholder Protection			0.32*	
			[1.74]	
Difference in PV Shareholder Protection if Diff>0				0.002
				[0.72]
Difference in PV Shareholder Protection if Diff<0				0.964**
				[2.09]
Observations	6,909	6,909	6,909	6,909
Number of Country	41	41	41	41
R-squared within	0.24	0.24	0.24	0.24
R-squared between	0.31	0.31	0.32	0.31
R-squared total	0.22	0.22	0.22	0.22

Absolute value of z statistics in brackets

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 10.**  
**Tobin's Q and Corporate Governance Quality of Target firms**  
**External Financial Dependence**

This table presents regressions of Tobin's Q (in logs) by industry, country, and year, on corporate governance indices. The EFN index is the index of External Financial Needs in the Manufacturing sector constructed by Almeida and Wolfenzon (2005). This index is computed as a weighted average of the industry-level measures of external finance dependence taken from Rajan and Zingales (1998). The weights are the industrial shares in total manufacturing output. Data is from UNIDO, Industrial Statistics Database. The sample extends between 1990 and 2001 and includes 39 industries in 41 countries. Standard errors are adjusted for heteroskedasticity. All regressions are estimated with industry x year fixed-effects, and country-random effects.

	(I)	(II)
Constant	0.366** [2.04]	0.366** [2.04]
Industry Herfindahl Index	-0.009 [0.69]	-0.01 [0.77]
Percent of Firms in Industry with ADR or cross-listing	0.121** [2.21]	0.110** [2.01]
Total Value of Cross-Border M&A / Market Capitalization Industry	0.038 [0.83]	0.007 [0.16]
Number of Firms in Industry / 100	7.002 [0.52]	9.224 [0.68]
Difference in Shareholder Protection if >0	0.241 [1.18]	
EFN Index x Difference in Sh. Protection if >0	-0.661 [0.99]	
Difference in Shareholder Protection if <0	-0.494*** [2.93]	
EFN Index x Difference in Sh. Protection if <0	1.578*** [2.81]	
Difference in Accounting Standards if >0		0.541* [1.88]
EFN Index x Difference in Acc. Standards if >0		-1.631* [1.73]
Difference in Accounting Standards if <0		-0.154 [0.84]
EFN Index x Difference in Acc. Standards if <0		0.269 [0.43]
Observations	5,739	5,739
Number of Country	31	31
R-squared within	0.24	0.24
R-squared between	0.39	0.40
R-squared total	0.23	0.23

Absolute value of z statistics in brackets

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Appendix  
Table A  
Correlations Among the Variables**

The following table shows the correlation matrix of the variables used in the paper. We provide indices for Shareholder Protection and Accounting Standards for each cross-border merger in our sample. We obtain the corporate governance index for the country of nationality of both the acquirer and target from La Porta et al. (1998). We classify each country into one of two categories: "Above the median" (value 1) and "Below the median" (value 0) for each of the indices. We then compute the difference between the acquirer's and the target's indices, and average across industries and countries, where each acquisition is weighted by the dollar value of the transaction. The "PV Shareholder Protection Index" is the modified LLSV index from Pagano and Volpin (2005). For details on the construction of the index, see [http://www.e-aer.org/data/sept05\\_data\\_snyder.zip](http://www.e-aer.org/data/sept05_data_snyder.zip). The "World Bank Rule of Law Index" measures the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence. Both indices are time varying. The sample includes all the completed acquisitions of 100% interest in a public company available in the Securities Data Corporation, from January 1, 1990 to December 31, 2001. The sample does not include LBOs, spinoffs, recapitalizations, self-tender and exchange offers, repurchases, minority stake purchases, acquisitions of remaining interest, and privatizations.

	<u>Tobin's Q</u>	<u>\$ Value of Cross-Border Mergers / Industry Market Capitalization</u>	<u>Shareholder Protection Difference, Acquirer minus Target</u>	<u>Accounting Standards Difference, Acquirer minus Target</u>	<u>Difference in WB Rule of Law</u>
\$ Value of Cross-Border Mergers / Industry Market Capitalization	0.023 **				
Shareholder Protection Difference, Acquirer minus Target	-0.013	-0.195 ***			
Accounting Standards - Difference Acquirer minus Target	-0.005	-0.213 ***	0.548 ***		
Difference in WB Rule of Law	-0.003	-0.079 ***	0.038 ***	0.055 ***	
Difference in PV Shareholder Protection	0.021	0.090 ***	0.047 ***	0.044 ***	0.0004

\*, \*\*, \*\*\* denote significant at the 10 percent, 5 percent, 1 percent levels or better, respectively