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Firm Evidence from Cross-Border Mergers**

Arturo Bris

Christos Cabolis

Yale School of Management

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Abstract

International law prescribes that in a cross-border merger where the acquiror buys 100 percent of the target, the target firm becomes a national of the country of the acquiror. Among other effects, the change in nationality implies a change in investor protection, because the law that is applicable to the newly merged firm changes as well. Therefore, cross-border mergers provide a natural experiment to analyze the effects of changes—both improvements and deteriorations—in corporate governance on firm value. We construct measures of the change in investor protection induced by cross-border mergers in a sample of 506 acquisitions from 39 countries, spanning the period 1989 to 2002. We find that the announcement effect of a cross-border merger for the target firm is higher—relative to a matching, domestic acquisition—the better the shareholder protection and the accounting standards in the country of origin of the acquiror. This result is only significant in acquisitions where the acquiror buys 100 percent of the target, and therefore where the nationality of the target firm changes. In addition, this result is only significant when the acquiror comes from a more-protective country, which suggests that target firms avoid adopting weaker protection via private contracting. Interestingly, we do not find a symmetric effect on the acquiror's return. All in all, we present evidence that the transfer of better corporate governance practices through cross-border mergers is positively valued by markets with weaker corporate governance.

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

JEL classification: F3, F4, G3

I Introduction

One commonly accepted paradigm in Finance is that better corporate governance is associated with better financial markets. Academic research, starting with the pioneering work by La Porta et al. (1998) (LLSV), has documented a strong association between good investor protection and measures of financial development.¹ Spurred by these findings, politicians and regulators around the world have started a process of corporate governance reform aimed to improve the quality of the investor protection provided by the legal system.² Thus, cross-sectional differences among countries have translated into policy decisions that involve changes in the corporate governance framework in a country.

Because of the cross-sectional nature of most studies in corporate governance, they are at best unhelpful when one is arguing either in favor of or against legal change. Most of the academic literature relies on the indicators constructed by LLSV, which are static by nature. Therefore, unless one has either episodic evidence (as in Glaeser et al., 2001, on the Poland–Czech Republic difference), or new indicators (as in Pistor, 2000, for transition economies, and Hyytinen et al., 2001, for Finland), one cannot conclude that improvements in investor protection within a country have positive effects in the financial markets. In this paper, we circumvent these issues by using cross-border mergers as a mechanism for corporate governance change and study the value effects of such changes.

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. By international law, when a foreign firm acquires 100 percent of a domestic firm, the nationality of the target firm changes. Among other implications, a change in nationality implies that the law that applies to the target company—and therefore the protection provided by such law to the target firm’s investors—changes as well. Therefore cross-border mergers are an ideal setting to analyze valuation effects of changes in investor protection.

The law that applies to a firm changes also when the company lists in a foreign market. Coffee (1999B) suggests dual listing of securities in the U.S. as a means for foreign issuers to commit to better governance.³ We think that cross-border mergers are a much better event to analyze changes in investor protection. First, the dual-listing decision is an endogenous choice made by firms, while a cross-border merger may not be necessarily the result of self-selection. Second, some companies list in a foreign market because they cannot go public in their own (Coffee, 1999B), not because they want to opt into a more protective regime for their investors. Finally, non-U.S. companies are exempted from several disclosure requirements, so they do not fully adopt the U.S. system of corporate governance.⁴

A second advantage of our approach is that, unlike country-specific studies, or analyses of the dual-listing decision, cross-border mergers allow target firms to adopt a less protective system. Therefore we are able to analyze the effects of both improvements and deteriorations in investor protection. Finally, cross-border mergers can happen between firms in different countries, legal systems, and levels of financial development. Consequently the sample of merging firms is rich enough to allow us to control for factors, other than corporate governance, which affect the value of cross-border mergers.

We construct a sample of 506 cross-border mergers in the period 1989 to 2002. Target firms are from 39 different countries, and acquiring firms are from 25 different countries. We analyze the relationship between the announcement effect of the acquisition in the acquiror and target stock returns, and measures of investor protection in the two countries. In particular, we quantify the potential transfer of investor protection from the acquiror to the target with the differences in several measures of protection between the countries of nationality of the acquiror and the target. These measures are the indices of shareholder protection, creditor protection, and accounting standards from LLSV, and the corruption index constructed by the International Risk Guide. We argue (in Section II) that a change in the corporate law will affect the level of shareholder protection and accounting standards. However, the level of corruption and the degree of creditor protection are inherent to the country where the company operates, and the country where the assets are located, respectively.

In order to isolate the pure corporate governance effects of the cross-border mergers, we select, for each of the mergers in our sample, a matching, domestic acquisition where the target firm shares similar characteristics of the cross-border target. We then construct matching-acquisition adjusted, buy-and-hold returns for the sample of cross-border mergers, and for a period of five days around the announcement of the cross-border merger. The reason for the matching sample is that the announcement effect of the cross-border merger can be affected by unobservable firm characteristics. Coffee (1999A) argues that companies where investors are less protected will tend to be acquisition targets. Or else, if markets are inefficient, an acquisition of a relatively undervalued firm could benefit both the acquiror and the target in a stock-for-stock deal (Shleifer and Vishny, 2003). Moreover, the matching sample allows us to control for factors like the liquidity of the market, the industry's concentration and competitive landscape, and the likelihood of a firm in a given country, industry, and year, being acquired.

We first show that the average acquisition where the acquiror comes from an above-median shareholder protection country, and the target comes from a below-median shareholder protection country, results in matching-acquisition adjusted abnormal returns of 5.78 percent (significant at the five percent level) for the target firm in days $t = -2$ to $t = +2$ around the acquisition announcement. Abnormal returns when

the acquiror comes from a below–median country and the target from an above–median country, are -13.41 percent (also significant at the one percent level). The results are very similar for the index of accounting standards, and the opposite for creditor protection. Moreover, we do not find significant differences in terms of corruption.

Because such differences can be caused by deal–specific characteristics, we perform a multivariate analysis where we regress target abnormal returns on firm, year, industry, and country characteristics, as well as on corporate governance differences between the acquiror and the target. In addition, we differentiate between 100 percent acquisitions, and the rest. We find that, in 100 percent acquisitions, a one-standard deviation increase (reduction) in the difference in shareholder protection between the acquiror and the target results in a 0.204 standard deviations increase (reduction) in the adjusted abnormal return. Similarly, the economic significance of the accounting standards difference is 0.178 standard deviations. However, there is no significant relationship for other cross–border mergers. This result is entirely consistent with the provisions of international law, which prescribes that, by default, only in 100 percent acquisitions do changes in nationality of the target firm become effective.

When we split the corporate governance index differences between positive and negative values, we find that only when the acquiror is better—in terms of shareholder protection—than the target, the announcement effect of the acquisition for the target shareholders is related to shareholder protection. When a target firm is acquired by a firm from a country with a shareholder protection index which is one standard deviation higher than its own, target shareholders realize, relative to shareholders of a comparable target firm that is acquired by a domestic firm, a five-day return which is 0.07 standard deviations higher. While the economic significance of such difference is only marginal, it increases to 0.356 standard deviations when we consider only acquisitions where the acquiror buys 100 percent of the target. This result is not driven by a larger fraction of the target shares being bought, since we also control for the percent of shares that is bought by the acquiror (which is neither statistically nor economically significant). We find a similar result for the accounting standards difference, although with a slightly lower economic significance. Interestingly, such effect is not symmetric: shareholders in the same target firm above do not suffer a significantly lower return from being acquired by a lower–shareholder–protection target, which suggests that target firms are able to improve upon the default legal code via private contracting. Regarding corruption differences, we find that target firms seem to be affected by corruption levels in the country of origin of the acquiring firms. However, it is only in 100 percent acquisitions, and in acquisitions with the corruption level in the acquiring country is lower (the corruption index is higher) that the abnormal return for the target shareholders is significantly positive (economic significance 0.190 standard deviations).

We also analyze the relationship between investor protection differences, and the acquiror's abnormal return. Consistent with the provisions in international law, we only find a significant effect of the differences in corruption: the higher the difference in the corruption index between the acquiror and the target (that is, the less *corrupted* the acquiror is relative to the target), the higher the acquiror's abnormal return.

In the last part of the paper, we address the issue of endogeneity. Some features of the acquisition, and in particular the means of payment, the attitude of the bidder and the percent of shares purchased, can be caused by corporate governance characteristics. Therefore, we estimate a Heckman-type treatment regression where some of these variables are endogenously determined, and show that the relationship between shareholder protection and abnormal returns is still economically and statistically significant.

In summary, we show that when firms adopt better shareholder protection and better accounting standards by means of a cross-border merger, the change is positively valued by the market. This effect is significant only in 100 percent acquisitions. It is, however, not true that, when a target firm adopts the practices of a less protective country, the market impact of the acquisition for the shareholders of the target firm is negative. This result suggests that the merging parties engage in private contracting that aims to overcome the loss in protection for the target's shareholders. We do not find evidence of a significant effect on the acquiring firm. That is, when a firm acquires in a more protective environment, its shareholders do not benefit from the stronger protection provided to the shareholders of the target firm. This result is consistent with the view that there is no legal requirement in international law which forces the acquiror's shareholders to transfer the nationality of the newly merged firm to the host country. Finally, we find that firms involved in cross-border mergers are affected by the levels of corruption in the acquiring and target countries. That is, while being acquired by a firm in a less-corrupted environment results in a significantly higher return to the target shareholders, acquiring firms experience larger returns than domestic acquirors when they buy in more-corrupted environments. All in all, we identify a positive value of adopting better corporate governance, and quantify its economic effect.

Our paper is closely related to Starks and Wei (2004) and Kuipers et al. (2003). Both papers analyze how differences in investor protection determine the announcement effect of cross-border acquisitions of U.S. companies. Starks and Wei (2004) find that takeover premia are decreasing in the quality of the corporate governance in the acquiring country, and that acquirors from more protective countries are more likely to finance their acquisitions with stock. Kuipers et al. (2003) show that the return to targets of cross-border deals in the U.S. is positively related to the quality of the investor protection in the acquiror's country. Our results are entirely consistent with both papers, although our sample includes targets from 39 countries, and includes acquisitions where the target firm is not always better—in terms

of investor protection—than the acquiror. Furthermore, in our paper differences in valuation arise mainly from differences in the legal environment in the target country—not the acquiring country.

Chari et al. (2004) study the stock market’s reaction to cross-border mergers, and find that they are larger when the target comes from an emerging market. Moreover, they find that such effect is significant only when the control of the company changes to the acquiring firm. Again, this is consistent with our finding that cross-border mergers have a positive effect on a less-protective target when 100 percent of the firm is acquired.

Our work is also related to Doukas and Travlos (1988), who show that the announcement effect of a cross-border merger is larger when the acquiring firm is entering a new geographic market for the first time. Bris and Cabolis (2004) analyze the industry effects of cross-border mergers that are caused by differences in investor protection, and they find that the Tobin’s Q of an industry is positively related to the percentage of the market capitalization in the industry that is acquired by firms coming from more-protective countries. Rossi and Volpin (2004) show that firms in less-protective countries are more likely to be targets of cross-border mergers, than targets of domestic mergers. However this result is a natural consequence of the fact that less-protective countries have less-developed financial markets, and hence fewer acquisitions. Moreover, they do not derive any value effect. Finally, our paper is in the same spirit as Daines (2001), who provides cross-sectional results to show that the market assigns a higher value to the assets of firms incorporated in Delaware. Our rich panel allows us to extend Daines’ methodology.

The paper is organized as follows. Section III describes the data and their sources. Section IV outlines the construction of merger-specific corporate governance indices from the original merger sample. In Section V we describe our methodology to calculate matching-acquisition abnormal returns, and provide preliminary results. Section VI furnishes is devoted to the multivariate analysis. In Section VII we provide some robustness tests, and section VII concludes. To begin, however, we need to establish how cross-border mergers alter the level of protection provided to the investors of the merging firms and we do this in the following section.

II Governance Transfer due to Mergers and Acquisitions

Corporate governance concerns the enhancement of corporate performance via the supervision, or monitoring, of management performance and ensures the accountability of management to investors (Kasey and Wright, 1997). The type and the extent of management supervision—which may or may not be choice variables for the firm—depend on legal rules. A formal change of the law will alter the rules and, therefore,

the governance. Most importantly for us, a contractual arrangement between two firms may *effectively* change the legal rules and subsequently the corporate governance structure. It is the latter type of change in the rules that we are focusing on in this paper. Specifically we are studying the effects that cross-border mergers have on management control and ultimately on the performance of a firm. In this section we discuss how cross-border mergers affect the effective legal environment of both the acquiror and the new merged firm, and the potential corporate governance implications of such a change.

With the caveats detailed below, a cross-border merger entails a change in the nationality of the target firm, and therefore a change in the Corporate Law—or Commercial Code—applicable to the firm. For example, DaimlerChrysler, which is the result of the merger of a German and a U.S. company, is domiciled in Germany. As such, it has adopted a two-tier board structure, as required by German law.

In principle, it is possible that contractual arrangements between the parties involved in a cross-border merger circumvent the legal effects of the transaction, implying that in some cases the acquiring firm adopts the practices of the target. Thus, the merging parties can make contractual arrangements so that the merged firm reports using the accounting standards of the target firm's country or a third country. For instance, the firm resulting from the 1996 acquisition of the Swedish Merita Nordbanken by the Danish Unidanmark started to report in Swedish GAAP—the standards of the target firm—following the agreement of both groups of shareholders. In other cases the legal system prevents the transfer of corporate governance practice. Foreign firms acquiring in the U.S. with stock, for instance, must register their securities with the S.E.C., thereby acquirors must comply to some extent with the legal rules in the country of nationality of the target firm.

Our challenge is to identify changes in investor protection induced by changes in the *nationality* of the target firm.⁵ In what follows, we discuss the implications of such a change for four indices of corporate governance. In particular, we focus on the protection provided to the shareholders and the creditors of the firms involved as well as the changes in accounting standards and political corruption induced by cross-border mergers.

Finally, an important distinction to make is that the resulting corporate law that applies to a firm after a cross-border merger can be different from the law applicable to the acquisition itself. The U.S. regulation, for instance, requires foreign acquirors of a corporation where at least 10 percent of the shares are held by U.S. investors to comply with the Williams Act.⁶ Therefore U.S. law applies to the acquisition, notwithstanding the nationality of the parties involved, and the law that applies to their practices.

A Shareholder protection

Shareholder protection refers to the protection provided by the corresponding Corporate Law or the Commercial code to the shareholders of a company. In principle, the law applicable to companies is the law of the country of nationality of the firm. The relevant protection is not determined by the law of the country of nationality of the shareholders, the country where the firm operates, or the country where some firm's assets are located. Therefore, the location of the shareholders of the company is in principle irrelevant (Horn, 2001.) In a cash-for-stock merger, the shareholders of the newly created firm are the old shareholders of the acquiror, while in a stock-for-stock merger, some shareholders of the newly created firm are located in the country of nationality of the target. Consequently, a cross-border merger results in the change of nationality of the target firm, the laws applicable to the firm, and possibly a change in the level of shareholder protection provided by the law to the shareholders of the target firm.

There are important exceptions to this rule. The most important is the principle of *extraterritoriality*, which dictates that in certain cases a state can assert jurisdiction over its nationals abroad. In the case of cross-border mergers, a host state is entitled to subject a foreign-owned subsidiary to local corporate law by reason of domicile of the subsidiary (Muchlinski, 1997). This becomes relevant when rights of minority shareholders are to be protected in a country different from the country of nationality of the firm. However, the extraterritoriality of corporate law is not applied when 100 percent of the shares of a company are acquired by a foreign firm. The reason is that the extraterritoriality of corporate law is applied in international law following what is known as the "nationality test" (Muchlinski, 1997). The domicile of the target firm remains in the host country when less than 100 percent of the shares of the target are acquired by the foreign firm. The textbook case that illustrates the nationality test is Fruehauf, where Fruehauf France SA was a company two-thirds owned by its American parent. The French regulation was applied to a case involving exports by Fruehauf France to the People's Republic of China, which were prohibited under the U.S. Trading with the Enemy Legislation (Muchlinsky, 1997). The U.S. Treasury Department accepted that the French subsidiary was under control of French law by domicile, even though it was legally a U.S. corporation.

Another exception in determining the law that is applicable to the new firm relates to the design of the cross-border merger. In the Daimler-Chrysler merger, for instance, German incorporation was chosen because the transfer of control of a German company to a foreign firm is prohibited by law (Decher, 2001). Moreover, tax issues were also of a great importance because the exchange of Daimler-Benz shares into a U.S. corporation would have triggered an enormous tax expense for Deutsche Bank, the largest

shareholder of Daimler-Benz. In the Hoechst / Rhone-Poulenc merger, the parties agreed that the French Rhone-Poulenc SA would be chosen as the surviving entity, irrespective of the larger business value of Hoechst, because of tax reasons. In these cases, the definition of ‘acquiror’ and ‘target’ are quite arbitrary.

In the case of cross-border mergers, the Securities Data Corporation—our source of data—considers the acquiror to be the surviving firm, and therefore from SDC data, one can conclude that the corporate law applicable to the newly created firm is the law of the country of nationality of the acquiror, defined in this way.

To conclude, absent contractual arrangements between the parties, international law states that acquisitions of 100% interest in a company by a foreign firm result in a change of the law applicable to the target firm.

B Creditor rights

To the extent that a U.S. multinational, for example, cannot force Chapter 11 on the default of one of its subsidiaries in another country, creditor protection is not transferrable from the U.S. to that country. La Porta et al. (2000) intuitively argue that importing creditor protection by acquiring a firm in another country is not possible, because corporate assets remain under the jurisdiction of the country where they are located and not under the jurisdiction where the firm is incorporated. This, in principle, is correct, with some caveats that we describe next.

For secured claims, it is generally assumed that the law of the situs of the collateral is the applicable law for all purposes. Generally, this rule is well founded for real estate. There is, however, a relevant debate in international law regarding intangibles, which by nature do not have a physical location. In general, if fixed assets are the collateral of the target firm’s debt, the law applicable to those assets—and therefore to the creditors—of the target firm remains in the host country.

In certain cases, courts in the country of nationality of the firm have jurisdiction over assets located in other countries. For instance, U.S. courts have jurisdiction over bankruptcy cases where creditors or assets are in the U.S., irrespective of the nationality of the firm (U.S. Bankruptcy Code §304). The U.S. law applies either when the assets or the creditors are located abroad. For instance, if a U.S. firm acquires a firm in Argentina, U.S. courts have jurisdiction over the assets of the newly created firm in Argentina. Section §541(a) of the U.S. bankruptcy code establishes that the estate includes all of the assets of the debtor, “*wherever located and by whomever held*”. The U.S. follows the *universality approach*, under which an insolvency case should be treated as a single case, and creditors should be treated equally irrespective of their location. In contrast, under the *territoriality approach* each country has jurisdiction over the assets

of the firm located within the country (Bufford et al., 2001).

To summarize, the acquisition of a firm in a host state by a foreign firm does not change the jurisdiction of the insolvency proceeding to the foreign country, as long as either creditors or assets remain in the host country. However a conflict of jurisdiction may arise if the country follows—like the U.S.—the universality approach. Therefore creditor protection is—in general—invariant to changes in control. Note, that the jurisdiction over the firm’s assets cannot be agreed upon by the merging parties, since boards of directors represent shareholders’ interests only, unless the firm is in distress.

C Accounting standards

The resulting accounting standards of a newly merged firm are by default the accounting standards of the country of nationality of the acquiring firm. This derives from the discussion on the relevant corporate law above. As an example, in the 1999 acquisition of Canadian Seagram by French Vivendi, the newly merged firm adopted the French accounting system. Similarly, Seita, a French Tobacco company, was acquired in October 1999 by Tabacalera, from Spain, to form a new entity called Altadis, which started to report under Spanish GAAP. Firms can exceptionally alter that situation via contractual arrangements, as in the Unidanmark – Merita Nordbanken transaction described above.

Note that, although contractual arrangements can improve the accounting standards of the merged firm, in some situations firms decide not to do so. The case of Altadis is representative of this situation, whereby a French company changed its standards to Spanish GAAP, which La Porta et al. (1998) rank below the French GAAP in terms of quality.

D Corruption

Our measure of corruption is defined by the International Country Risk Guide as ‘*a measure of corruption within the political system that is a threat to foreign investment by distorting the economic and financial environment, reducing the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability, and introducing inherent instability into the political process.*’⁷ Therefore, a firm operating internationally is affected by the corruption in the country where it operates, the country where it pays taxes and the country where its creditors are located. This happens irrespective of the nationality of the newly merged firm.

A cross-border merger affects the level of corruption that involves both the acquiring and the target firm. When acquiring abroad, a firm must get involved with the system of political relations prevailing in the country where the target firm operates. Similarly, the target firm becomes subject to the system of

political relations present in the country of the acquiring company.

There is evidence in the literature that foreign investors are affected by the corruption level in the host country. Simonov and Gianetti (2002), who use data on investment choices by individual investors in Sweden, show that individuals who are more likely to have connections with the local financial community and have access to information prefer to invest in firms where there is more room for extraction of private benefits of control.

E Final note

Corporate law provides the minimum standards that a firm must comply with, in order to be legally operational. However, nothing precludes merging firms to adopt stricter rules than the ones prescribed in the law. Indeed, the anecdotal evidence we provide above points to situations where firms opt to more austere practices than the ones imposed by the relevant corporate law. The methodology that we adopt in the empirical section is the practice prescribed by corporate and international laws and designates the minimum adjustment that merging firms must legally undertake. The exceptions, where firms adopt stricter rules, make our findings stronger.

III Data

A Initial Sample

Our main source of data is the Securities Data Corporation Mergers and Acquisition database (SDC). We obtain information on all completed acquisitions of public companies between January 1989 and December 2002, for all available countries. We exclude leverage buyouts, spinoffs, recapitalizations, self-tender offers, exchange offers, repurchases, minority stake purchases, acquisitions of minority interest, and privatizations. This initial dataset contains 8,053 announcements, of which 1,508 are cross-border.

Table 1 describes the construction of our sample which we divide in two groups: cross-border and domestic mergers.

[INSERT TABLE 1]

SDC provides detailed information on the deal, as well as on characteristics of the merging firms. However, SDC does not provide information on the price of the stock. Therefore, we merge the information obtained from SDC with Worldscope-Datastream. This SDC+Worldscope dataset comprises of 3,339 observations where 713 correspond to cross-border deals.

Relative to the initial sample the firms in the SDC+Worldscope dataset are significantly larger in terms of total assets. Table 1 shows that the median cross-border target in the SDC+Worldscope sample has total assets of \$389 million, versus \$179 million in the initial sample. Similarly, acquirors in cross-border mergers have assets of \$8.6 billion in the SDC+Worldscope sample, compared to \$3.8 billion in the original SDC sample. Moreover, based on Kolmogorov-Smirnov test of differences, we show that the distribution of total assets is statistically different in both samples. Results are similar for the subsample of domestic mergers.

B Matching Sample

We construct the "final sample" by identifying a domestic merger for each cross-border merger in the SDC+Worldscope sample. The domestic merger meets the following criteria: (i) it is announced in the same year as the cross-border merger, (ii) the target firm belongs in the same country and industry (2-digit SIC code) as the target firm of the cross-border merger, (iii) the target company is different from the target company of the cross-border merger, (iv) the percentage of the target's shares sought by the acquiror is below 50 percent if the percent sought in the cross-border merger is below 50 percent, and vice versa, and (v) the target firm is the closest in terms of total assets to the target of the corresponding cross-border merger.

The final sample excludes observations when there is a single acquisition in a given year, industry, and country, as well as when the matching target firm is either more than double in size, or less than half in size, than the corresponding cross-border target. The final sample also excludes cross-border mergers for which the investor protection indices in La Porta et al. (1998) are not available like the Eastern European countries.

The sample that satisfies all the above characteristics consists of 1012 observations. There are 506 cross-border mergers and 506 corresponding domestic mergers, for which we have complete information on deal characteristics and stock price history for both the target and the acquiring firm.

Table 1 shows that, relative to the original sample, our final sample of matching pairs contains significantly larger firms. For instance, while the median size of a cross-border target is \$179 million in the original sample, it increases to \$359 million in the final sample (significantly different at the 1 percent level). However, the differences between the SDC+Worldscope sample and the final sample are not large. Total assets are \$388 million and \$359 million, respectively, and their difference is statistically significant only at the 10 percent level, for cross-border targets. The sample of acquirors in cross-border mergers, and the sample of target firms in the domestic mergers, are not significantly different between the SDC+Worldscope

and Final samples.

C Description of the Data

Our sample of cross-border mergers is geographically fairly diversified. It contains acquisition announcements from target firms from 39 countries, and acquiring firms from 25 countries. Table 2 provides the description of the sample.

[INSERT TABLE 2]

With respect to acquirors, Table 2 shows that cross-border acquirors are significantly larger than domestic acquirors (\$7.7 billion versus \$3.1 billion, significantly different at the 1 percent level), and have a higher Tobin's Q. These differences remain significant one year after the acquisition announcement. Note also that in the median cross-border merger, the acquiror is twenty times as large as the target, compared with 8.4 times in a domestic merger. Relative to target firms, acquirors in cross border mergers: display higher Tobin's Qs; higher sales; higher return on assets; and higher cash flow to assets. We find similar differences in domestic mergers, and we additionally find that domestic acquirors invest more than domestic targets.

With respect to target firms, the matching procedure is very efficient. There are no significant differences between cross-border targets and matching domestic targets at time $t = 0$ in the five accounting variables we consider. One year after the acquisition, cross-border targets compared to matching domestic targets display significantly higher return on assets (4.51 percent versus 3.32 percent), and higher cash-flow-to-assets (11.26 percent versus 8.54 percent). The sample of target firms is significantly reduced at $t = 1$ (260 firms instead of 348 firms) because some target firms are delisted in the domestic market.

Finally, Table 2 shows the differences between the firms in the two subsamples. We obtain accounting information from Worldscope, and we report in the table results of a non-parametric Wilcoxon test for the differences between firms in the same pair. These differences are reported in the year of the acquisition announcement, as well as one year before and one year after. We report: total assets,⁸ Tobin's Q, sales to total assets, return on assets, cash flow to sales, and investment to assets. Tobin's Q is computed as the book value of total assets, minus the book value of the common equity, plus the market value of the common equity, divided by the book value of total assets.

[INSERT TABLE 3]

In Table 3 we disaggregate the sample of cross-border merger by nationality of the firms involved. Most of our targets, (84 out of 506, or 17 percent), and most of our acquirors (139 out of 506, or 27 percent)

come from the U.S. We have 8 targets from Africa, 104 from Asia, 48 from Latin America, 133 from North America, 43 from Oceania, and 170 from Western Europe. Similarly, our sample includes 8 acquirors from Africa, 54 from Asia, 5 from Latin America, 169 from North America, 30 from Oceania, and 240 from Western Europe.

Most of the mergers are friendly (99 percent), and “non-horizontal” (68 percent). We define an acquisition as horizontal when the main four-digit SIC code of the target and the acquiror coincide. Consequently, non-horizontal acquisitions include both vertical and conglomerate mergers. Additionally, 72 percent of our acquisitions use cash as the only means of payment.

Acquirors are consistently larger than targets, and the relative size varies across countries. In Japan, the median acquiror size (total assets) relative to the median Japanese target size is two; in Finland, the median acquiror size to the median Finnish target size is 220. By acquirors, the acquiror-to-target ratio is largest in Germany (134) and lowest in Belgium (one).

IV The Quality of Investor Protection

In this section we assemble country-specific corporate governance indices. Our starting point is the indices on shareholder rights, creditor rights, efficiency of the legal system, and accounting standards, from La Porta et al. (1998), and the corruption index constructed by the International Country Risk Guide.⁹ The shareholder and the creditor rights indices are multiplied by the efficiency of the legal system to provide the shareholder protection and creditor protection indices, respectively.

Each acquisition in our sample is characterized by eight indices: shareholder protection, creditor protection, accounting standards, and corruption, for the acquiring firm’s country, and the analogous indices for the target firm’s country. The difference of the corresponding indices between the two countries provides an indication of the potential *corporate governance quality transfer* that results from the cross-border merger. To illustrate this point, 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 way of contractual transfer of corporate governance practices from the U.K. to Greece. The magnitude of such transfer is $50 - 14 = 36$.¹⁰

In Table 4 we capture the general relationship of the levels of investor protection between the target and acquiring firms. To do so, we classify countries relative to the medians of the investor protection indices we consider and a proxy for economic development, the GDP per capita. We then classify the cross-border mergers in the sample depending on the country of nationality of the acquiror and the target. We report

tests of association between the target and the acquiring country. We first confirm that most acquirors and most targets in our sample come from below-median GDP per capita countries. The relationship between the GDP per capita of the acquiror and the target is significant at the 10 percent level. Only 70 out of 506 acquisitions in our sample happen between above-median GDP per capita countries.

There is no significant relation between the levels of shareholder protection and creditor protection in the target and the acquiring country. Interestingly, there are more cross-border acquisitions where the acquiror comes from a below-median shareholder protection country and the target comes from an above-median country (24.5 percent), than the reverse (22.5 percent). Our results are in contrast with Rossi and Volpin (2004), who report that the corporate governance quality of acquirors in cross-border mergers is significantly higher than the quality of targets. The reason for this discrepancy is that Rossi and Volpin (2004) focus on the ratio of cross-border mergers relative to the total number of mergers in a country. Therefore, their finding that there are more mergers of firms in poor corporate governance countries by firms in strong corporate governance countries is driven by the positive correlation between the frequency of mergers—both domestic and cross-border—and the quality of the governance system. We show that in the period 1989–2002, the largest percentage of cross-border mergers—53 percent—are between firms in countries with similar levels of shareholder protection.

We do find some association between the accounting standards of the acquiring and the target country. Although most of the acquisitions in the sample (43 percent) happen between countries with below-median accounting standards, there are significantly more acquisitions where the target comes from an above-median accounting standards country and the acquiror from a below-median accounting standards country (30.2 percent), than the reverse (12.2 percent). Such an association is significant at the one percent level. There is also some significant association in terms of corruption levels. We believe this is due to the high correlation between corruption levels and GDP per capita (see Appendix, Table A).

[INSERT TABLE 4]

V Abnormal Returns

A Computation of Buy-and-hold Abnormal Returns

We measure the market impact of each acquisition by calculating buy-and-hold cumulative abnormal returns (BHCAR). We first estimate a market model regression of dollar-denominated daily returns on the corresponding dollar-denominated market return and the MSCI world index. Return data are obtained

from Datastream. Abnormal returns are calculated for a window around the tender offer announcement for all the firms for which daily data are available. Market model regressions are performed in the following way:

$$R_{ijt} = \alpha_i + \beta_i^m R_{m_j t} + \beta_i^w R_{wt} + \epsilon_{it} \quad t = -260, \dots, -100$$

where R_{ijt} refers to the daily stock return for either the target or the acquiring firm i in country j , $R_{m_j t}$ is the market return in country j , and R_{wt} is the world index.¹¹ The residual ϵ_{it} defines the excess return for each firm and day. Days are, for the remainder of the paper, trading days.¹² We then compute abnormal returns, and accumulate them over four different subperiods: $(-100, -3)$, $(-2, +2)$, $(0, +10)$, and $(0, +100)$. BHCAR in period (T_1, T_2) for firm i is computed as:

$$BHCAR_i^{(T_1, T_2)} = \prod_{t=T_1}^{t=T_2} (1 + \hat{\epsilon}_{it})$$

Table 5 reports the average BHCAR for targets and acquirors. During the five days surrounding an acquisition announcement, target firms experience a 14.20 percent abnormal return (significant at the one percent level), and acquirors experience negative returns of -1.12 percent (significant at the five percent level). Over the period of 100 days following the acquisition announcements, target shareholders realize a 33.98 percent abnormal return, and acquirors' return is -5.36 percent (both significant at the one percent level). There is no significant price run up in days $(-100, -3)$ for targets, but a negative and significant abnormal return (-0.09 percent) for acquirors.

[INSERT TABLE 5]

We classify firms in three ways depending on the GDP per capita in the target country, the attitude of the bidder, and whether the announcement happens before or after 1995, the mid-point of our sample. There is a positive relationship between GDP per capita and target's BHCAR (the Kruskal-Wallis test rejects the hypothesis of independent distributions with a confidence of 99 percent). In the above-median category the abnormal return is 20.96 percent (significant at the one percent level), compared to an 11.11 percent abnormal return in the below-median countries. Consistent with the literature (Jennings and Mazzeo, 1993), we find that announcement effects are lower in friendly deals (13.43 percent) compared to hostile offers (28.44 percent), although their difference is not statistically significant. We do not find difference in reaction in the pre- and post-1995 periods, except for the BHCAR in days $(0, +100)$, which is significantly larger (49.72 percent) after December 1995.

For acquirors, we find that the total effect of the announcement (in days (0, +100)) is significantly lower in friendly deals. While friendly acquirors lose -5.71 percent (significant at the one percent level), hostile acquirors realize a 17.96 percent return (significant at the 10 percent level).

Figure 1 plots the time-series of abnormal returns. Unlike Table 5, we first calculate cross-sectional averages for each t , and then accumulate these average returns for several subperiods. We compare the cumulative abnormal return to cross-border targets and acquiror, with the corresponding return in the matching domestic deal. For target firms, the total announcement effect of a cross-border merger represents a 14 percent increase with respect to the stock price 100 days prior to the announcement. The same announcement effect is only around 9 percent for similar, domestic acquisitions. Similarly, for the acquiring firms, within the same 100 days-window, the total announcement effect for cross-border mergers represents a -1.5 percent decrease of the stock price while for domestic mergers the effect is -3 percent.

[INSERT FIGURE 1]

B Matching-Acquisition Adjusted Abnormal Returns

In this section we describe the construction of the most important variable in our analysis. Abnormal returns are strongly determined by specific characteristics of the country where the acquisition takes place. In particular, market liquidity, regulation, and financial development determine the market response to an acquisition, which is independent of corporate governance considerations. For instance, Bhattacharya et al. (1999) show that the market does not respond to corporate events in Mexico. They blame the inexistence of insider trading enforcement for the non-significant market effect of earnings and acquisition announcements. The existing literature a significant relationship between financial and economic development (La Porta et al., 1999). Thus we expect a positive, yet spurious, relationship between the quality of the investor protection in the target country, and the announcement effect of acquisitions in that country. Indeed, Table 5 confirms such relationship.

We try to isolate the pure corporate governance effects by adjusting our BHCARs relative to the matching domestic acquisitions. Therefore, we compute for each cross-border merger in our sample, matching-acquisition adjusted BHCARs (MABHCAR) for both target and acquiring firms, in the following way:

$$MABHCAR_i = BHCAR_i^{CB} - BHCAR_i^{DOM} \quad (1)$$

where $BHCAR_i^{CB}$ is the cumulative buy-and-hold return for the cross-border acquisition i in days $t = -2$ to $t = +2$, and $BHCAR_i^{DOM}$ is the cumulative buy-and-hold return for the domestic acquisition that matches acquisition i , selected as described in section III.B.

Because the target firms in each pair of the two acquisitions are from the same country, matching-acquisition adjusted BHCARs measure the incremental announcement effect of the cross-border acquisition that is driven by the foreign nationality of the acquiror. Table 6 and 7 report $BHCARs$ and $MABHCARs$ for target and acquiring firms, respectively.

[INSERT TABLE 6]

We classify mergers in terms of economic development of the participating countries. Chari et al. (2004) show that monthly returns for target firms at the announcement of cross-border mergers average 5.05 to 6.68 percent. They show that such benefits derive from the transfer of majority control from emerging markets to developed markets. Our results are consistent with their view. We find that, while the average $BHCAR$ for acquisitions where the acquiror is from an above-median GDP per capita country and the target is from a below-median GDP per capita country is 21.51 percent, the average $BHCAR$ in the opposite direction is 12.35 percent (both significant at the one percent level). These differences are driven by the quality levels of the acquirors. This can be deduced by the tests of differences that show abnormal returns significantly different depending on the GDP per capita in the acquiring country (p-value 0.0045), but independent of the GDP per capita in the target country. When the target country is in a below-median GDP per capita country, abnormal returns are significantly higher when the acquiror is from an above-median GDP country. In Section VII.B we test whether differences in abnormal returns are due to changes in nationality, or to changes in control.

Interestingly, while Table 5 shows that unadjusted abnormal returns are larger when the target firm is from an above-median GDP per capita country, in Table 6 we find that, after adjusting by a matching acquisition, abnormal returns are larger when the target firm is from a below-median country (although $MABHCARs$ are insignificant for both groups, their difference is significant at the *one* percent level).

The second panel in Table 6 shows that the previous results can be explained by differences in shareholder protection. In fact, the average acquisition where the acquiror comes from an above-median shareholder protection country, and the target comes from a below-median shareholder protection country, results in abnormal announcement returns of 18.70 percent (5.78 percent matching-acquisition adjusted, significant at the five percent level). Abnormal returns in the opposite case are 5.52 percent (−13.41 per-

cent matching-acquisition adjusted, significant at the one percent level). Therefore, for target firms, it is the difference in shareholder protection in the acquiring firm that determines abnormal returns.

The results for accounting standards mirror our findings for shareholder protection. This is not surprising given the high correlation between the shareholder protection and accounting standards indices (see Table A in the Appendix, and La Porta et al., 1999).

Our findings regarding creditor protection are, however, the opposite. When the acquiror is better than the target in terms of creditor protection, abnormal returns to the target firm are negative (−5.95 percent *MABHCAR*, significant at the five percent level). and when the acquiror is worse than the target, abnormal returns to the target firm are positive (10.16 percent *MABHCAR*, significant at the one percent level). Given the level of creditor protection for the acquiring firm, differences in creditor protection for the target result in significantly different adjusted *BHCARs* (p-value for the difference 0.0045).

Finally, we do not find significant differences in returns depending on the level of corruption.

In Table 7 we analyze abnormal returns for acquiring firms. First, and unlike Chari et al. (2004), we find that acquirors in cross-border mergers do not experience positive abnormal returns (even on a matching-acquisition adjusted basis). Our results may be due to a different estimation window, since Chari et al. (2004) report abnormal returns for the month surrounding the announcement, and we focus on five-days announcement effects. Moreover, they calculate abnormal returns relative to a domestic market benchmark, while we calculate abnormal returns relative to the domestic market, and a world index.

[INSERT TABLE 7]

An interesting result is that differences in economic development do not affect differences in returns to acquirors. Regarding the shareholder protection, we find some intriguing results. When the target firm is in a below-median shareholder protection environment, acquirors suffer higher negative returns compared to acquirors from an above-median shareholder protection country (−3.40 percent versus −1.10 percent adjusted return, with a p-value for the difference of 0.0155). Such a difference is not significant for above-median shareholder protection acquirors. Acquirors experience more negative adjusted *BHCAR* when they come from above-median creditor protection countries, irrespective of the creditor protection in the acquiring country (−1.84 percent versus −1.11 percent adjusted return, with a p-value for the difference of 0.0174).

In sum, when the acquiror is from a country with better shareholder protection and accounting standards than the target, the acquiror’s abnormal return is significantly negative. However, when the acquiror

is from a country with worse creditor protection and more corruption than the target, the acquiror’s abnormal return is more negative than in the opposite case.

In the next section we analyze the determinants of abnormal returns in multivariate fixed-effect regressions.

VI Multivariate Analyses

A Econometric Specification and Controls

In this section we explore the determinants of the matching-acquisition adjusted abnormal returns to target and acquiring firms, as a function of country, industry, and firm-specific characteristics. We specify fixed-effect regressions with $MABHCAR$ as endogenous variable, in the following way:

$$MABHCAR_{it}^{jk} = \alpha_j + \beta_k + \delta_I + d_t + \Phi \cdot C_{jt} + \Psi \cdot GDP_{\xi t} + \mathbf{B} \cdot \mathbf{G}_{jk} + \mathbf{\Gamma} \cdot \mathbf{Z}_i + \varepsilon_i \quad (2)$$

for cross-border acquisition i happening in year t , such that the target firm of industry I is a national of country j and the acquiror is a national of country k . In words, we estimate a cross-sectional regression with target-country-fixed effects, acquiring-country-fixed effects, industry-fixed effects, and year-fixed effects.¹³ Moreover, we control for characteristics of the two countries which are time variant, like the exchange rate between the domestic currency and the U.S. dollar, C_{jt} , and the GDP per capita, GDP_{ξ} where $\xi = j$ for the country of the target firm and $\xi = k$ for the country of the acquiring firm. The vector \mathbf{G}_{jk} includes measures of investor protection in the countries of the target and the acquiror, as well as differences between them. These are the variables that we construct in section IV.

Finally, the vector \mathbf{Z}_i includes controls that are acquisition specific. In particular, we construct dummy variables that equal one when: (i) the acquisition is non-horizontal; (ii) target shareholders are paid only with cash, (iii) the acquisition is hostile. Vertical and conglomerate mergers have different wealth effects than horizontal acquisitions. Differentiating between all-cash mergers and the rest is also important. Starks et al. (2004) analyze the impact of cross-border acquisitions of U.S. targets on returns to the acquiring firms. They find that only in stock-for-stock offers the abnormal return to the acquiror depends on the investor protection levels in the U.S. They argue that in cash offers, target firm shareholders cash out and are not facing different corporate governance regimes. Moreover, Eckbo et al (1990) find that abnormal returns to target firms are significantly larger for all-stock mergers, compared to cash-and-stock and all-cash acquisitions. Schwert (2000) presents some mixed evidence relating the attitude of the bidder-hostile or friendly-to stock price runup prior to acquisition announcements and merger premia. We additionally

control for the percentage of the target shares' sought by the acquiror. We do not control for target firm characteristics because our matching procedure cancels out the effect of those variables on matching-acquisition adjusted abnormal returns.

Additionally, we control for the overall frequency of mergers in the target country, measured by the number of completed acquisitions of domestic public firms in a given year, divided by the total number of publicly listed firms in the country.¹⁴ We measure the frequency of all mergers, as well as the frequency of cross-border mergers only. These variables measure the degree to which a given cross-border merger is unexpected in a country, and we expect it to display a negative sign.¹⁵ In some specifications we also include the difference in market capitalization to GDP between the acquiring and the target countries as a measure of financial development. Finally, Φ , Ψ , \mathbf{B} and $\mathbf{\Gamma}$, are sets of parameters to be estimated.

International law prescribes that cross-border mergers entail a change in the law applicable to the target firm when the acquisition is for 100 percent of the target's shares. Therefore we specify an alternative model where we interact a dummy variable D^{100} which equals one for 100 percent acquisitions, zero otherwise, with the corporate governance indices, to estimate the following regression:

$$MABHCAR_{it}^{jk} = \alpha_j + \beta_k + \delta_I + d_t + \Phi \cdot C_{jt} + \Psi \cdot GDP_{\xi t} + \mathbf{B}^0 \cdot \mathbf{G}_{jk} + \mathbf{B}^1 \cdot D_i^{100} \cdot \mathbf{G}_{jk} + \mathbf{\Gamma} \cdot \mathbf{Z}_i + \varepsilon_i \quad (3)$$

We expect the coefficients in B^0 to be different from the coefficients in B^1 . Note that, like in Chari et al. (2004), changes in control result in a value for $D^{100} = 1$. In Section VII.B we provide results based on two different dummies: one that captures changes in control, and another one that captures changes of nationality only.

B Results: Target Firms

In Table 8 we report results for the estimation of equations (2) and (3). Because the next tables have the same format as Table 8, we will discuss the format in some detail here. The first column shows the "economic significance" of the variables that are statistically significant in at least one of the econometric models we specify.¹⁶ Economic significance is measured in units of standard deviations of the endogenous variable per one standard deviation change in the corresponding exogenous variable. All but one of our regressions use year, industry, target country, and acquiring country fixed effects: in model (2) we include target-country specific corporate governance variables, so random-country effects are a natural alternative. The table also reports three R-squared coefficients: "R-squared within" measures the explanatory power of our regressions within each target country; "R-squared between" measures the explanatory power across

target countries. “R-squared overall” is the combination of the two.

We have data on all variables available for matching pairs from 31 countries, and a total of 241 observations. Among the acquisition-specific variables that determine abnormal returns, hostility shows a significant coefficient with the expected positive sign. A one-standard deviation increase in the probability of an acquisition being hostile increases the incremental announcement effect of a cross-border merger by 0.332 standard deviations. Non-horizontal mergers, and mergers financed with cash, result in a significantly lower announcement effect and lower economic significance (-0.013 and -0.078 respectively). Finally, the acquisition frequency in the target country has the expected negative impact on the announcement effect of the cross-border mergers in our sample. A one-standard deviation increase in the percent of domestic firms acquired in the country reduce the *MABHCAR* of the cross-border mergers in our sample by -0.221 standard deviations.

[INSERT TABLE 8]

Corporate governance variables do not determine abnormal returns (model [2]). In model [3] we show that it is not the difference in financial development between the countries of the target and acquiring firms that determines the magnitude of the announcement effect. Instead, as Table 8 shows, it is the difference in shareholder protection and accounting standards between the two countries involved that determines the market impact of the acquisition. In fact, only when we consider 100 percent acquisitions are the coefficients of “Shareholder Protection Difference” and “Accounting Standards Difference” significant. A one-standard deviation increase in the difference in shareholder protection between the shareholder protection indices of the acquiror’s minus the target’s results in a 0.204 standard deviations increase in the adjusted abnormal return. Similarly, the economic significance of the accounting standards difference is 0.178. This result is consistent with the provisions of international law, which prescribes that only 100 percent acquisitions effectively change the nationality of the target firm.

[INSERT TABLE 9]

In Table 9 we split the corporate governance index differences between positive and negative values. Our objective is to test for any asymmetries in corporate governance transfers. The main result of the table is that the announcement effect of the acquisition for the target firm is related to shareholder protection only when the acquiring firm comes from a country with better shareholder protection. The 0.971 coefficient in the first row of model (1) means that, when a target firm is acquired by a firm from a country with

an one-standard deviation higher shareholder protection index than its own, target shareholders realize a five-day return which is 0.07 standard deviations higher relative to shareholders of a comparable target firm that is acquired by a domestic firm. While the economic significance of such difference is only marginal, it increases to 0.356 standard deviations when we consider only acquisitions where the acquiror buys 100 percent of the target. Note that this result is not driven by a larger fraction of the target shares being bought, since the coefficient of the “Percentage of Shares Sought by Acquiror” is neither statistical nor economically significant. We find a similar result for the accounting standards difference, although with a slightly lower economic significance.

Interestingly, the asymmetry in the effect implies that shareholders of a target firm that is acquired by a firm from a weaker-shareholder-protection environment do not suffer a significantly lower return. This confirms the intuition that we described in II.E: nothing precludes merging firms to adopt stricter governance rules than the ones prescribed by the corporate code. This result suggests that target firms are able to circumvent the default governance code via private contracting.

Regarding the differences in corruption levels, we find evidence consistent with Section II.D: target firms seem to be affected by corruption levels in the country of origin of the acquiring firms. However, it is only in 100 percent acquisitions, and in acquisitions where the corruption level in the acquiring country is lower (the corruption index is higher) that the abnormal return for the target shareholders is significantly positive (economic significance 0.190 standard deviations).

C Results: Acquiring Firms

Tables 10 and 11 report the corresponding results when the endogenous variable is the matching-acquisition adjusted, buy-and-hold abnormal return to the acquiring firm’s shareholders. There are four significant variables in Table 10, and two of them are acquisition-specific variables. Returns to foreign acquirors, relative to domestic acquirors, are higher: (i) in non-horizontal mergers (economic significance -0.123), and (ii) in acquisitions financed entirely with cash (economic significance 0.279). Interestingly we find that the acquiror’s abnormal return is significantly higher the more the target country’s currency depreciates with respect to the dollar. The result holds irrespective of the exchange and confirms the intuition that it is the currency of the target country that matters. The weaker the currency of the target county is, the more inexpensive the deal is for the acquiror, everything else remaining constant.

[INSERT TABLE 10]

The acquiror's abnormal return is larger, the higher the difference in the level of corruption between the target and the acquiring country. The economic significance of this coefficient is 0.260. Table 11 shows that the result is driven by acquisitions where the corruption index of the acquiring firm is higher (i.e., the level of corruption is lower) than the target (economic significance 0.250). That is, relative to a domestic acquiror, a foreign acquiror coming from a less corrupted environment benefits more, *ceteris paribus*.

[INSERT TABLE 11]

D Summary of the Results

In general, target firms in a weaker corporate governance environment relative to the acquiring firms, adopt better practices because of a change in the country of incorporation of the firm. We show that this change in the nationality of the target firm is positively valued by the market. The opposite, however, is not true. When a target firm opts into a less protective country, the market impact of the acquisition for the shareholders of the target firm is not negative. This result suggests that the merging parties engage in private contracting that aims to overcome the weaker protection for the target's shareholders.

We do not find evidence of the *symmetric* effect. That is, when a firm acquires in a more protective environment, its shareholders do not benefit from the stronger protection provided to the shareholders of the target firm. This result is consistent with the view that there is no legal requirement in international law which forces the acquiror's shareholders to transfer the nationality of the newly merged firm to the host country.

The quality of the accounting standards in a cross-border merger is important. By default, a transfer of nationality of the target firm implies a change in the accounting standards. Only when the accounting standards of the acquiring company are stronger, does the target firm shareholders experience abnormal returns relative to targets of domestic acquisitions. Moreover, such an abnormal return is only earned in 100 percent acquisitions, which is consistent with international law.

Finally, we find that firms involved in cross-border mergers are affected by the levels of corruption in the acquiring and target countries. That is, while being acquired by a firm in a less-corrupted environment results in a significantly higher return to the target firm's shareholders, acquiring firms experience higher returns than domestic acquirors when they buy in more-corrupted environments.

VII Robustness Tests

A Endogeneity Issues

In this section we want to ensure the accuracy of our methodology. For instance, differences in valuation are systematically related to unobservable firm characteristics, it is possible to find a significant, yet spurious, relationship between corporate governance and firm valuation. Suppose, for example, that firms in the U.K. tend to acquire only in Brazil—a country with below–median shareholder protection—rather than Argentina—a country with above–median shareholder protection. Suppose also that U.K. acquirors manage their acquisitions better than any other acquirors. We will find that improvements in corporate governance through acquisitions of Brazilian firms by U.K. firms are associated with positive valuation effects. However, such an evidence is spurious. This is so because the value effects of the mergers are associated with systematic characteristics of the firms involved—in this example the fact that they are U.K. firms.

Starks and Wei (2004) find that acquirors from countries with better corporate governance are more likely to finance acquisitions of U.S. firms with stock. Because Eckbo et al. (1990) find that stock mergers result in larger abnormal announcement effects for targets, this effect alone can explain our findings in the previous sections—even though we control for the means of payment in our regressions. In this section we address the endogeneity issue by using a two-step estimation method.

Table 12 reports regressions of three acquisition characteristics on corporate governance variables. In particular, we estimate two probit regressions for the probability that the acquisition is financed with cash (first model), and the probability that the acquisition is non-horizontal (second model). Additionally, we estimate a cross-sectional linear regression for the percentage of shares sought by the acquiror. Our controls include the investor protection index differences defined above, as well as time-varying country variables, year-, industry-, target country-, and acquiring country–fixed effects.

[INSERT TABLE 12]

Consistent with Starks and Wei (2004), we find a positive relationship between the difference acquiror–target in shareholder protection and the likelihood that the acquisition is financed with cash. Note that by using acquisitions of U.S. firms, Starks and Wei (2004) find a similar positive relationship between shareholder protection differences and the probability that the acquisition is financed with cash in a fixed shareholder protection environment. The accounting standards difference coefficient is also positive and significant. However, its marginal effect on the probability of a cash merger is lower than the shareholder

protection difference between the acquiror and the target (9.14 versus 12.61). Finally, we find the obvious result that the larger the percentage of shares sought by the acquiror, the less cash is used.

We do not find that corporate governance variables have a significant effect on the percentage of shares sought, or in the probability of a non-horizontal merger. Only the difference in the level of corruption appears to affect the probability of a non-horizontal merger, although the marginal effect is very low (-0.94).

Acquirors from less developed countries tend to acquire larger stakes (statistically significant at the one percent level), and are less likely to make non-horizontal mergers (significant at the one percent level). Non-horizontal mergers are less likely when there are more domestic acquisitions, and less cross-border mergers, in the target country. Finally, the percentage sought in the acquisition is significantly larger the weaker the target's currency.

Because the means of payment are significantly related to measures of investor protection, in the next tables we perform a treatment effects regression (Heckman, 1979). The treatment effects regression is a two-step model. In the first step, we use exogenous variables to generate a prediction of the likelihood of an acquisition being financed with cash. In the second step, we use the expected value of such likelihood, rather than the actual dummy variable, to estimate the effect of the probability of a cash payment on the matching-acquisition adjusted abnormal return. In this second step, the estimated coefficients of the corporate governance variables measure the direct relationship between corporate governance characteristics and abnormal returns. The two-step estimator is consistent (Heckman, 1979).

The first step estimation is similar to the first probit regression in Table 12, and consequently we do not report the results in each of the subsequent tables. Tables 13 and 14 show results for target firms, and are the equivalent of Tables 8 and 9 above. Tables 15 and 16 report results for acquiring firms, and are equivalent to Tables 10 and 11.

Relative to Table 8, Table 13 shows no change in the economic significance of the shareholder protection difference. After controlling for endogeneity, the difference in accounting standards become insignificant, while the difference in corruption levels becomes significant at the five percent level. There is also some evidence of endogeneity: while the coefficient for "cash payment" is negative and significant in model [8] of Table 8, it has a positive and significant sign in model [1] of Table 13. However the *lambda* coefficient (Mill's ratio) is not significantly different from zero in model [1] of Table 13.

[INSERT TABLE 13]

[INSERT TABLE 14]

Model [2] in Table 14 reports a similar coefficient for “Shareholder Protection Difference, only Positive, 100 percent acquisitions” with model [2] in Table 9. However, in this case we address the endogeneity problem directly. Indeed, the *lambda* coefficient is significantly different from zero at the 10 percent level.

When we regress acquiror’s abnormal returns, we get some interesting results (see Tables 15 and 16). Compared to Table 10, in Table 15 the coefficient for cash payment is not significant and changes sign in the different models that we estimated. Therefore, once we control for endogeneity, there is no effect of the means of payment on the acquiror’s abnormal return, and the *lambda* coefficient is significantly different from zero. We still find that acquirors benefit from buying firms in more corrupted environments. However, model [8] in Table 15 shows that when the acquisition is for 100 percent of the target shares, acquirors are harmed by acquiring in more corrupted countries. Indeed, the economic significance of this variable is high (a one-standard-deviation increase in the corruption difference results in a -0.241 change in the standard deviation of *MABHCAR*). The difference between the coefficient for the corruption index difference in 100 percent acquisitions (-10.560) and the coefficient of the corruption index difference (4.475) is significantly different from zero (p-value 0.0021). Table 16 shows that this relationship is driven by acquisitions of firms in high-corruption environment by firms in a low-corruption environment (a situation where the corruption index difference is positive).

[INSERT TABLE 15]

[INSERT TABLE 16]

Additionally, in Table 16 we report a significant relationship between creditor protection differences and acquiror’s abnormal return. For a firm in a given country, acquiring another firm in a country with a one standard deviation less creditor protection than its own, results in a 0.04 standard deviations larger abnormal return, relative to a domestic acquiror. Moreover, this result is economically more significant in 100 percent acquisitions (0.250 standard deviations). This result is in line with the discussion in Section II.B, since creditor protection is inherent to the country where assets are located. Hence by acquiring in a less-creditor-protective regime, acquirors import “bad-creditor protection” and the market penalizes the acquiror for that.

Once we control for endogeneity, we further show that the target’s abnormal return is not significantly affected by other acquisition-specific variables.¹⁷ In turn, the acquiror’s abnormal return is higher: (i) the fewer the number of cross-border acquisitions in the target country, (ii) the lower the percentage of shares sought by the acquiror, (iii) the more the home country appreciates with respect to the dollar, (iv) the

more the target country depreciates with respect to the dollar, and (v) the more (financially) developed the target country is (i.e., higher GDP per capita).

B Change of Nationality or Change in Control?

Our results are consistent with a positive valuation effect of a change in control for the target firm. Chari et al. (2004) document larger abnormal returns to target firms in emerging markets, when the acquiror is a firm from a more developed country. We consider that an acquisition entails a change of nationality of the target firm when the acquiror buys 100 percent of the target. In turn, a 100 percent acquisition results automatically in a change in control as well. In this section we separate the effect of a change in control from the effect of a change in nationality and, therefore, a change in the rules that protect investors.

We characterize the acquisitions in our sample with two dummy variables: D^{100} , described in Section VI.A, and a dummy variable D^{50} that equals one when the percent of shares acquired in the transaction is larger than 50 percent. Consequently, for an acquisition where both control and nationality change, the dummy variables become $\{D^{100} = 1, D^{50} = 1\}$. However, when an acquisition changes the control but not the nationality of the target firm, the dummy variables become $\{D^{100} = 0, D^{50} = 1\}$. We interact both dummies with our measures of investor protection change, in multivariate regressions similar to (3).

[INSERT TABLE 17]

In Table 17 we summarize the results of the regressions for both the target and the acquiring firm. With respect to Tables 9 and 11, there is no change in the economic and statistical significance of the interaction between D^{100} and the investor protection indices. Moreover, D^{50} is not significant at explaining target's abnormal returns. Only for the acquiror we find an effect of changes in control. When a firm buys more than 50 percent of another company, in a country with creditor protection and accounting standards which are one standard deviation worse than their own, the announcement effect of the acquisition decreases by 0.427 and 0.488 standard deviations, respectively. Because a change in control does not imply a change in creditor protection, the first result is consistent with a negative valuation effect of bad creditor protection, which remains the one in the country of nationality of the target. The effect of accounting standards may be explained by the lower value that the acquiring shareholders ascribe to a firm with poor accounting standards.

VIII Conclusion

This paper presents evidence showing that improvements in accountability and transparency are positively valued by the market. We consider the changes in corporate governance induced by cross-border mergers. For around 500 acquisitions in 39 different countries, and in the period 1989–2002, we construct measures of the corporate governance quality of the deal by taking differences in the indices of investor protection in the countries of the acquiror and the target. Four corporate governance indicators are considered: shareholder protection, creditor protection, accounting standards, and level of corruption. We investigate the relationship between corporate governance quality changes and the announcement effect of an acquisition for the bidder and the target. In order to isolate the pure corporate governance effects, we measure abnormal returns for each of our cross-border mergers relative to a matching, domestic acquisition with similar characteristics.

We undertake a simple and intuitive experiment. By using a sample of cross-border mergers and matching domestic acquisitions, we are able to isolate the direct relationship between corporate governance and returns. Our study does not claim that countries or firms that better protect their shareholders are more valuable. Instead, we show that changes in corporate governance within a firm have value implications. Besides, unlike country-specific studies, ours provides a setting where corporate governance quality improves as often as it worsens. In fact, we find that opting into a more protective regime is sometimes not the opposite to opting into a less protective one.

Our main result is that acquisitions of firms in weaker shareholder protection countries by firms in stronger protective regimes results in a higher announcement effect for the target firm, relative to a similar target in a domestic acquisition. This result is robust to country, year, and industry characteristics. It is however not true that acquisitions by firms in weaker corporate governance environments result in a negative announcement effect for the acquiror.

Our results do not suggest that corporate governance is a motive for cross-border acquisitions. Even if target firms could opt into the best corporate governance system, it is not clear that acquirors in such a system would be willing to take over a firm in an environment with worse investor protection. 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. The question is then why these mergers happen, and it goes beyond the scope of this paper.¹⁸

An area for future research is the study of the specific characteristics of cross-border mergers that affect firm value. In our paper, we control for the frequency of domestic and cross-border acquisitions

affecting a particular country, and show that these ratios are significantly related to the market's reaction to the announcement of a cross-border merger. Exploring the factors behind these costs and benefits, and documenting the differences between domestic and cross-border mergers, deserve future work.

References

- Alexander, Lucy, 2000. Corporate Governance and Cross-Border Mergers. Conference Board Research Report 1273-00-RR.
- Bhattacharya, Utpal, Hazem Daouk, Brian Jorgenson and Carl-Heinrich Kehr. 1999. When an Event is not an Event: The Curious Case of an Emerging Market. *Journal of Financial Economics* 55: 69–102.
- Beck, Thorsten and Ross Levine. 2002. Industry Growth and Capital Allocation: Does Having a Market- or Bank-Based System Matter? *Journal of Financial Economics* 64: 147-180.
- Bris, Arturo and Christos Cabolis. 2004. Adopting Better Corporate Governance: Evidence from Cross-Border Mergers. Yale International Center for Finance, working paper.
- Bufford, Samuel L., Louise DeCarl Adler, Sidney B. Brooks and Marcia S. Krieger. 2001 International Insolvency. Federal Judicial Center, manuscript.
- Caves, Richard E. 1996. *Multinational Enterprise and Economic Analysis*. Cambridge, MA: Cambridge University Press.
- Chari, Anusha, Paige Ouimet and Linda Tesar. 2004. Cross-border Mergers and Acquisitions in Emerging Markets: The Stock Market Valuation of Corporate Control. University of Michigan, working paper.
- Claessens, Stijn and Luc Laeven. 2003. Financial Development, Property Rights, and Growth. *Journal of Finance* 58: 2401-2436.
- Coffee, John C. 1999A Privatization and Corporate Governance: The Lessons from Securities Market Failure. Center for Law and Economic Studies, Columbia University School of Law, working paper no. 158.
- Coffee, John C. 1999B. The Future as History: The Prospects for Global Convergence in Corporate Governance and its Implications. Center for Law and Economic Studies, Columbia University School of Law working paper no. 144.
- Daines, Robert. 2001. Does Delaware Law Improve Firm Value? *Journal of Financial Economics* 62: 525-558.
- Decher, Christian E. 2001 The Daimler'Chrysler Merger. In Norbert Horn, (Ed.). *Cross-Border Mergers and Acquisitions and the Law*. Great Britain: Kluwer Law International.

- Demirgüç-Kunt, Asli and Vojislav Maksimovic. 1998. Law, Finance and Firm Growth. *Journal of Finance* 53: 2107-2137.
- Demirgüç-Kunt, Asli and Vojislav Maksimovic. 1999. Institutions, Financial Markets and Firm Debt Maturity. *Journal of Financial Economics* 54: 295-336.
- Doukas, John and Nickolaos G. Travlos. 1988. The Effect of Corporate Multinationalism on Shareholders' Wealth: Evidence from International Acquisitions. *Journal of Finance* 43: 1161-1175.
- Eckbo, B. Espen, Ronald M. Giammarino and Robert L. Heinkel. 1990. Asymmetric Information and the Medium of Exchange in Takeovers: Theory and Tests. *Review of Financial Studies* 3: 651-675.
- Glaeser Edward, Simon Johnson and Andrei Shleifer. 2001. Coase versus The Coasians. *Quarterly Journal of Economics* 116: 853-899.
- Jennings, Robert H. and Michael A. Mazzeo. 1993. Competing Bids. Target Management Resistance, and the Structure of Takeover Bids. *Review of Financial Studies* 6: 883-909.
- Heckman James J. 1979. Sample Selection Bias as a Specification Error. *Econometrica* 47: 153-161.
- Himmelberg, Charles, R. Glenn Hubbard and Inessa Love. 2002. Investor Protection, Ownership, and the Cost of Capital. World Bank working paper series no. 2834.
- Horn, Norbert. 2001. Cross-border Mergers and Acquisitions and the Law: A General Introduction. In Norbert Horn, (Ed.). *Cross-Border Mergers and Acquisitions and the Law*. Great Britain: Kluwer Law International.
- Hyytinen, Ari, Iikka Kuosa and Tuomas Takalo. 2001. Law or Finance: Evidence from Finland. Research Institute of the Finnish Economy discussion paper 775.
- Johnson, Simon, Peter Boone, Alasdair Breach and Eric Friedman. 2000. Corporate Governance in the Asian Financial Crisis. *Journal of Financial Economics* 58: 141-186.
- Kasey, Kevin and Mike Wright. 1997. *Corporate Governance*. New York: John Wiley and Sons.
- Kuipers, David R., Darius Miller and Ajay Patel. 2003. The Legal Environment and Corporate Valuation: Evidence from Cross-Border Takeovers. Texas Tech University, working paper.
- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny. 1998. Law and Finance. *Journal of Political Economy* 106: 1113-1147.

- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny. 1999. The Quality of Government. *Journal of Law, Economics and Organization* 15: 222-279.
- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny. 2000. Investor Protection and Corporate Governance. *Journal of Financial Economics* 58: 3-27.
- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny. 2002. Investor Protection and Corporate Valuation. *Journal of Finance* 57: 1147-1170.
- Lins, Karl V., Deon Strickland and Marc Zenner. 2004. Do Non-U.S. Firms Issue Equity on U.S. Exchanges to Relax Capital Constraints? *Journal of Financial and Quantitative Analysis*, forthcoming.
- Miller, Darius. 1999. The Market Reaction to International Cross Listings: Evidence from Depositary Receipts. *Journal of Financial Economics* 51: 103-123.
- Mørck, Randall, Bernard Yeung and Wayne. 2000. The Information Content of Stock Markets: Why do Emerging Markets have Synchronous Price Movements? *Journal of Financial Economics* 58: 215-260.
- Muchlinski, Peter, 1997, *Multinational Enterprises and the Law*. Oxford, UK: Blackwell Publishers.
- Pistor, Katharina. 2000. Patterns of Legal Change: Shareholder and Creditor Rights in Transition Economies. EBRD working paper No.49.
- Rossi, Stefano and Paolo Volpin. 2004. Cross-Country Determinants of Mergers and Acquisitions. *Journal of Financial Economics* forthcoming.
- Schwert, G. William. 2000. Hostility in Takeovers: In the Eyes of the Beholder? *Journal of Finance* 55: 2599–2640.
- Shleifer, Andrei and Robert Vishny. 2003. Stock Market Driven Acquisitions. *Journal of Financial Economics* 70: 295-311.
- Simonov, Andrei and Mariassunta Gianetti. 2002. Which Investors Fear Expropriation? Evidence from Investors' Stock Picking. Stockholm School of Economics working paper.
- Starks Laura and Kelsey D. Wey. 2004. Cross-Border Mergers and Differences in Corporate Governance. working paper.
- Wurgler, Jeffrey. 2000. Financial Markets and the Allocation of Capital. *Journal of Financial Economics* 58: 187-214.

Notes

1. Legal rules determine: corporate valuation in La Porta et al. (2002) and Himmelberg, et al. (2002); firm’s financing choices in Demirguc-Kunt and Maksimovic, (1998, 1999); the allocation of capital in Wurgler (2000), Beck and Levine (2002), and Claessens and Laeven (2003); the efficiency of the markets in Mørck et al. (2000); and the severity of currency crises, in Johnson et al. (2000).

2. A good example is the World Bank reference to Claessens and Laeven (2003): “*Improving corporate governance contributes to the development of the public and private capital markets*” (in Lubrano, Mike, “Why Corporate Governance?”, Development Outreach, March 2003, The World Bank Institute), whereas the cited paper shows that “*In countries with more secure property rights, firms might allocate resources better and consequentially grow faster*” (Claessens and Laeven, 2003).

3. There is evidence that the announcement effect of an American Depository Receipt (ADR) is positive and significant (Miller, 1999). Lins et al. (2004) find that a U.S. listing is more beneficial for firms with poorer investor protection. However, Lins et al. (2004) do not find a significant relationship between the benefit of a dual listing in the U.S. and the legal origin of the issuer. Alas, the positive effect of an ADR can be explained also by increases in liquidity, costly signalling, gains related to market segmentation, and differences in valuation for different groups of investors.

4. U.S. companies must file quarterly reports with the Securities and Exchange Commission that contain interim financial information. Non-U.S. companies are not required to file quarterly reports. Also, non-US companies and their officers, directors, and controlling shareholders are exempt from the insider trading rules that apply to U.S. companies.

5. Nationality is defined here as the location of the company’s headquarters. The law applicable to companies can be determined according to two principles. According to the ‘seat theory’, the relevant law is the law of the location of a company’s headquarters. According to the ‘incorporation theory’, the relevant law is the law of the country of incorporation. The seat theory is dominant in the U.S. and Europe (see Horn, 2001).

6. See Securities Act Release No. 33-6897 (June).

7. See <http://www.countrydata.com>

8. Total Assets in Table 1 are the latest total assets reported by firms prior to the acquisition announcement, obtained from SDC. In most cases they correspond to the end-of-year value the year before the acquisition announcement. In Table 2, Total Assets are from Worldscope, and measure the end-of-year value of total assets in the year of the acquisition announcement. This explains the differences, both in sample size and in value, between Tables 1 and 2.

9. We use this corruption index because it is time-varying, while La Porta et al. (1998) report an average of the years 1982 – 1995.

10. Alternatively, and given that the La Porta et al. (1998) indices have different ranges and it is difficult to draw comparisons in absolute terms, we could 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 could then assign a value of 1 to the corresponding index when the country of nationality of the firm has an index above the median, and zero otherwise. See our work in Bris and Cabolis (2004). Our results are robust to this alternative specification. The methodology employed in this paper implicitly weights equally acquisitions between firms with very different levels of investor protection.

11. The market index is the corresponding market index in the country of nationality of the target and the acquiring firm, respectively.
12. While in the US lack of data for a particular stock in a given day is not an issue, in emerging markets it is. Sometimes trading is suspended for a particular stock during a short period. Therefore, when the price information is missing for a given stock in a given day, one does not know whether it is due to non-trading or data unavailability (this is especially true in Datastream). A window of 30 trading days prior to the announcement of an acquisition may mean 6 weeks for one stock, and three months for other.
13. In some specifications we estimate target-country random effects.
14. The number of publicly listed firms in the country is from the World Bank Development Indicators.
15. We have alternatively estimated our regressions with a measure of the frequency of acquisitions which is industry and year specific. There is no quantitative change in our results. We prefer the country measure, because otherwise there are too many zeroes.
16. When the coefficient is significant in two or more models, the reported economic significance is the average of the models where the coefficient is significant.
17. Some variables are significant in only one specification.
18. 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. See also Caves (1996), who provides an economic analysis of the existence and consequences of multinational firms.

Cross-Border Mergers

| | Original SDC Sample | | SDC + Worldscope Sample | | Final Sample | |
|---|---------------------|-------------|-------------------------|-----------------------|-----------------------|-----------------------|
| | Target | Acquiror | Target | Acquiror | Target | Acquiror |
| Number of Acquisitions | 1,508 | | 713 | | 506 | |
| Total Assets (\$Mil) at t=0 | | | | | | |
| Mean | \$2,052.6 | \$35,290.7 | \$2,945.6 | \$76,588.3 | \$3,799.6 | \$63,282.3 |
| Median | \$179.4 | \$3,778.5 | \$388.9 | \$8,577.5 | \$359.0 | \$7,644.5 |
| Min | \$0.0 | \$19.0 | \$0.0 | \$19.0 | \$0.0 | \$19.0 |
| Max | \$140,979.9 | \$944,327.0 | \$140,102.0 | \$1,615,859.0 | \$123,995.2 | \$925,791.5 |
| Standard Deviation | \$9,399.9 | \$105,804.0 | \$9,787.0 | \$189,221.5 | \$10,866.5 | \$155,780.7 |
| Test of Differences with Original SDC Sample (p-value) | | | 0.1841*** (0.0000) | 0.1798*** (0.0000) | 0.1715*** (0.0000) | 0.1685*** (0.0000) |
| Test of Differences with SDC + Worldscope Sample (p-value) | | | | | 0.0862* (0.0680) | 0.0437 (0.6760) |

Domestic Mergers

| | Original SDC Sample | | SDC + Worldscope Sample | | Final Sample | |
|---|---------------------|---------------|-------------------------|-----------------------|-----------------------|-----------------------|
| | Target | Acquiror | Target | Acquiror | Target | Acquiror |
| Number of Acquisitions | 6,545 | | 2,626 | | 506 | |
| Total Assets (\$Mil) at t=0 | | | | | | |
| Mean | \$2,528.9 | \$11,924.0 | \$2,425.6 | \$16,912.0 | \$2,610.6 | \$25,993.5 |
| Median | \$148.4 | \$1,259.4 | \$295.1 | \$2,337.8 | \$361.8 | \$2,889.6 |
| Min | \$1.4 | \$6.8 | \$1.4 | \$6.8 | \$1.4 | \$6.8 |
| Max | \$574,103.3 | \$1,057,657.0 | \$120,094.0 | \$1,057,657.0 | \$82,618.7 | \$925,791.5 |
| Standard Deviation | \$19,548.7 | \$42,800.3 | \$8,346.6 | \$62,985.0 | \$7,687.6 | \$72,349.3 |
| Test of Differences with Original SDC Sample (p-value) | | | 0.1729*** (0.0000) | 0.1122*** (0.0000) | 0.2074*** (0.0000) | 0.1851*** (0.0000) |
| Test of Differences with SDC + Worldscope Sample (p-value) | | | | | 0.0724 (0.1080) | 0.1029*** (0.0010) |

Table 1. Construction of the sample

The “Original SDC Sample” consists of all domestic and cross-border mergers identified by the Securities Data Corporation M&A Database (SDC), between January 1989 and December 2002. It includes all completed deals of publicly listed corporations and it excludes leverage buyouts, privatizations, acquisitions of minority interest, and spin-offs. The “SDC + Worldscope Sample” of incorporates accounting information available in Worldscope. Finally, for each cross-border mergers in the sample we identify a domestic acquisition in the same year, where the target company belongs in the same country and industry, and is the closest in size to the cross-border target. The “Final Sample” includes those cross-border mergers for which a matching acquisition could be identified, and winsorizing the sample at the 1 percent level. The table shows the Total Assets at the announcement of the acquisition for the three samples. Tests of differences are based on a non-parametric, Kolmogorov-Smirnov test.

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

| | Acquiring Company | | | | | | | | | | | |
|-----------------------|-------------------|--------------|-----------|----------------------|-----|--------------|-----------|----------------------|------|--------------|-----------|----------------------|
| | t=-1 | | | | t=0 | | | | t=+1 | | | |
| | N | Cross-Border | Domestic | Difference (p-value) | N | Cross-Border | Domestic | Difference (p-value) | N | Cross-Border | Domestic | Difference (p-value) |
| Total Assets | 504 | 6,773,315 | 2,953,781 | (0.0000) | 506 | 7,724,915 | 3,096,272 | (0.0000) | 444 | 8,456,926 | 3,734,399 | (0.0000) |
| Tobin's Q | 502 | 1.56 | 1.38 | (0.0000) | 502 | 1.45 | 1.32 | (0.0000) | 442 | 1.34 | 1.23 | (0.0002) |
| Sales to Total Assets | 503 | 61.91 | 50.96 | (0.3516) | 505 | 54.27 | 48.45 | (0.2731) | 444 | 54.82 | 48.17 | (0.0759) |
| Return on Assets | 522 | 6.09 | 5.83 | (0.2040) | 528 | 5.52 | 4.27 | (0.3769) | 467 | 4.86 | 3.72 | (0.1031) |
| Cash Flow to Sales | 524 | 12.87 | 11.75 | (0.1339) | 526 | 12.48 | 11.69 | (0.0276) | 463 | 11.14 | 11.69 | (0.2228) |
| Investment to Assets | 99 | 31.62 | 25.79 | (0.2288) | 97 | 34.06 | 28.64 | (1.0000) | 86 | 32.37 | 30.38 | (0.1439) |

| | Target Company | | | | | | | | | | | |
|-----------------------|----------------|--------------|----------|----------------------|-----|--------------|----------|----------------------|------|--------------|----------|----------------------|
| | t=-1 | | | | t=0 | | | | t=+1 | | | |
| | N | Cross-Border | Domestic | Difference (p-value) | N | Cross-Border | Domestic | Difference (p-value) | N | Cross-Border | Domestic | Difference (p-value) |
| Total Assets | 462 | 316,714 | 318,733 | (0.5460) | 348 | 379,488 | 367,551 | (0.2062) | 260 | 517,202 | 391,315 | (0.1055) |
| Tobin's Q | 442 | 1.34 | 1.45 | (1.0000) | 334 | 1.30 | 1.38 | (0.7790) | 253 | 1.24 | 1.23 | (0.3232) |
| Sales to Total Assets | 461 | 68.85 | 73.06 | (0.0777) | 348 | 53.48 | 67.68 | (0.8419) | 260 | 55.54 | 63.54 | (0.6705) |
| Return on Assets | 449 | 4.91 | 4.57 | (0.4980) | 348 | 4.90 | 3.60 | (0.8412) | 268 | 4.51 | 3.32 | (0.0023) |
| Cash Flow to Sales | 472 | 10.70 | 9.87 | (0.6094) | 358 | 11.48 | 9.94 | (0.0917) | 269 | 11.26 | 8.54 | (0.0043) |
| Investment to Assets | 52 | 22.80 | 22.52 | (1.0000) | 45 | 25.24 | 18.09 | (0.3323) | 35 | 20.40 | 17.33 | (0.5488) |

| | Difference Acquiror-Target (p-values) | | | | | |
|-----------------------|---------------------------------------|----------|--------------|----------|--------------|----------|
| | t=-1 | | t=0 | | t=+1 | |
| | Cross-Border | Domestic | Cross-Border | Domestic | Cross-Border | Domestic |
| Total Assets | (0.0000) | (0.0000) | (0.0000) | (0.0000) | (0.0000) | (0.0000) |
| Tobin's Q | (0.0000) | (0.1238) | (0.0013) | (0.5587) | (0.0008) | (0.1982) |
| Sales to Total Assets | (0.0001) | (0.0036) | (0.0003) | (0.0000) | (0.0029) | (0.0033) |
| Return on Assets | (0.0207) | (0.0002) | (0.0076) | (0.0162) | (0.1342) | (0.0022) |
| Cash Flow to Sales | (0.0002) | (0.0066) | (0.0359) | (0.0145) | (0.7083) | (0.7449) |
| Investment to Assets | (1.0000) | (0.8714) | (0.7428) | (0.0309) | (0.2649) | (0.1460) |

Table 2. Description of the Sample

Median Accounting ratios for the Final sample of cross-border mergers, and the corresponding domestic mergers, in years t=-1, t=0, and t=+1 relative to the year of announcement. All variables are winsorized at the 1% level. We construct a paired-sample of acquisitions consisting of a cross-border merger, and a matching domestic merger announced in the same year, where the target company belongs in the same country and industry, and is the closest in size to the cross-border target. Our original sample consists of 3,163 completed acquisitions of public firms between 1989 and 2002, with available information in both the Securities Data Corporation Mergers and Acquisition database and Worldscope. We exclude spin-offs, leverage buyouts, acquisitions of minority interests, and privatizations. Tests of significance are based on a non-parametric Kruskal-Wallis test. Tests of differences are based on a Wilcoxon matched-pairs signed-rank test. P-values are in parentheses.

| Country | By nationality of the Target Firm | | | | | | | | | | | By nationality of the Acquiring Firm | | | | | | | | | | |
|----------------|-----------------------------------|-----------------------|---------------------|----------------------|--------------------|---------------------------|-------------------------|------------|------------|-----------|--------|--------------------------------------|-----------------------|---------------------|----------------------|--------------------|---------------------------|-------------------------|------------|------------|-----------|--------|
| | N | Total Assets Acquiror | Total Assets Target | Tobin's Q - Acquiror | Tobin's Q - Target | Return on Assets Acquiror | Return on Assets Target | % Acquired | % Vertical | % Hostile | % Cash | N | Total Assets Acquiror | Total Assets Target | Tobin's Q - Acquiror | Tobin's Q - Target | Return on Assets Acquiror | Return on Assets Target | % Acquired | % Vertical | % Hostile | % Cash |
| Argentina | 6 | 192,000,000 | 7,725,769 | 1.14 | 1.00 | 5.95 | 1.10 | 37.50 | 50% | 0% | 67% | 21 | 3,138,117 | 256,173 | 1.19 | 1.22 | 6.19 | 5.00 | 55.25 | 74% | 4% | 65% |
| Australia | 29 | 2,519,156 | 286,747 | 1.17 | 1.44 | 8.04 | 5.70 | 12.57 | 68% | 3% | 82% | 2 | 83,845 | 38,027 | 0.87 | 0.92 | -4.06 | 0.43 | 12.70 | 0% | 0% | 50% |
| Austria | 6 | 14,400,000 | 2,815,742 | 1.43 | 1.23 | 4.50 | 4.28 | 15.00 | 67% | 0% | 0% | 5 | 3,247,509 | 3,174,231 | 1.04 | 1.22 | 10.30 | 5.37 | 7.50 | 0% | 0% | 80% |
| Belgium | 3 | 15,900,000 | 2,106,984 | 1.19 | 1.11 | 0.11 | 7.95 | 7.00 | 100% | 0% | 100% | 3 | 45,400,000 | 7,519,408 | 1.17 | 1.02 | 13.42 | -5.10 | 48.05 | 100% | 0% | 67% |
| Brazil | 16 | 26,600,000 | 1,404,123 | 1.68 | 1.08 | 6.00 | 8.18 | 33.60 | 82% | 0% | 82% | 30 | 1,987,161 | 209,699 | 1.38 | 1.04 | 5.61 | 4.98 | 100.00 | 74% | 0% | 58% |
| Canada | 49 | 6,821,683 | 204,171 | 1.48 | 2.11 | 4.50 | 3.16 | 100.00 | 67% | 0% | 46% | 2 | 6,158,412 | 1,035,130 | 1.03 | 0.93 | 8.01 | 8.67 | 3.56 | 100% | 0% | 100% |
| Chile | 8 | 21,000,000 | 459,287 | 1.33 | 1.27 | 7.88 | 4.88 | 10.00 | 56% | 0% | 89% | 2 | 4,653,651 | 678,687 | 1.28 | 1.79 | 6.78 | 2.72 | 32.45 | 100% | 0% | 100% |
| Colombia | 4 | 302,000,000 | 2,717,292 | 1.11 | 1.05 | 1.98 | -0.95 | 21.99 | 100% | 0% | 100% | 1 | 21,300,000 | 2,194,998 | 1.14 | . | 10.09 | . | 100.00 | 100% | 0% | 100% |
| Denmark | 2 | 39,100,000 | 84,047 | 2.81 | 10.40 | 10.40 | 100.00 | 100% | 0% | 0% | 50% | 33 | 19,700,000 | 5,679,565 | 2.25 | 2.23 | 5.00 | 8.98 | 38.60 | 66% | 0% | 71% |
| Finland | 2 | 103,000,000 | 468,494 | 1.07 | 1.68 | 3.27 | 5.28 | 30.81 | 100% | 0% | 100% | 41 | 99,200,000 | 742,782 | 1.07 | 1.26 | 2.45 | 2.44 | 51.00 | 76% | 2% | 73% |
| France | 29 | 3,262,997 | 79,986 | 1.57 | 1.37 | 5.84 | 3.62 | 30.47 | 65% | 0% | 68% | 13 | 4,512,538 | 651,945 | 1.21 | 1.32 | 3.18 | 7.82 | 11.22 | 64% | 0% | 79% |
| Germany | 27 | 5,722,084 | 146,585 | 1.74 | 1.23 | 3.43 | 3.55 | 26.45 | 45% | 3% | 58% | 1 | 2,958,258 | 134,600 | 1.60 | 1.08 | 10.45 | 3.62 | . | 0% | 0% | 100% |
| Greece | 3 | 731,000,000 | 7,370,517 | 1.03 | 1.37 | 0.41 | 3.98 | 4.99 | 100% | 0% | 100% | 9 | 5,232,840 | 103,039 | 1.68 | 1.27 | 3.45 | -8.19 | 39.46 | 60% | 0% | 40% |
| Hong Kong | 7 | 3,112,448 | 80,886 | 1.28 | 0.93 | 6.19 | -11.12 | 9.96 | 86% | 0% | 86% | 26 | 29,700,000 | 879,281 | 1.17 | 1.08 | 1.75 | 7.10 | 20.28 | 49% | 0% | 77% |
| India | 9 | 10,700,000 | 94,466 | 1.75 | 1.41 | 10.06 | 5.80 | 20.50 | 89% | 0% | 78% | 5 | 16,900,000 | 2,549,962 | 1.20 | 0.96 | 5.26 | 1.72 | 30.50 | 50% | 0% | 100% |
| Indonesia | 8 | 6,145,176 | 1,069,849 | 1.24 | 1.28 | 2.54 | 7.95 | 19.59 | 38% | 0% | 75% | 18 | 24,700,000 | 379,761 | 1.76 | 1.48 | 6.85 | 1.84 | 98.67 | 100% | 5% | 89% |
| Ireland | 16 | 22,800,000 | 1,117,051 | 1.67 | 1.32 | 9.28 | 6.05 | 9.03 | 38% | 0% | 94% | 9 | 2,519,156 | 287,991 | 1.40 | 1.63 | 16.00 | 5.72 | 8.00 | 100% | 10% | 100% |
| Israel | 8 | 311,000,000 | 2,020,792 | 1.07 | 1.43 | 1.12 | 3.29 | 30.00 | 50% | 10% | 30% | 1 | 2,958,258 | 134,600 | 1.60 | 1.08 | 10.45 | 3.62 | . | 0% | 0% | 100% |
| Italy | 8 | 311,000,000 | 2,020,792 | 1.07 | 1.43 | 1.12 | 3.29 | 30.00 | 50% | 10% | 30% | 9 | 5,232,840 | 103,039 | 1.68 | 1.27 | 3.45 | -8.19 | 39.46 | 60% | 0% | 40% |
| Japan | 12 | 24,800,000 | 7,257,947 | 1.35 | 1.09 | 11.80 | 3.55 | 15.12 | 93% | 0% | 100% | 26 | 29,700,000 | 879,281 | 1.17 | 1.08 | 1.75 | 7.10 | 20.28 | 49% | 0% | 77% |
| Malaysia | 7 | 6,191,803 | 217,926 | 1.04 | 1.46 | 2.63 | 4.70 | 15.90 | 63% | 0% | 63% | 5 | 16,900,000 | 2,549,962 | 1.20 | 0.96 | 5.26 | 1.72 | 30.50 | 50% | 0% | 100% |
| Mexico | 8 | 10,300,000 | 1,994,442 | 2.15 | 2.13 | 10.37 | 12.19 | 18.50 | 75% | 0% | 100% | 18 | 24,700,000 | 379,761 | 1.76 | 1.48 | 6.85 | 1.84 | 98.67 | 100% | 5% | 89% |
| Netherlands | 18 | 19,700,000 | 5,679,565 | 2.88 | 2.23 | 5.53 | 39.61 | 8.40 | 67% | 0% | 78% | 9 | 2,519,156 | 287,991 | 1.40 | 1.63 | 16.00 | 5.72 | 8.00 | 100% | 10% | 100% |
| New Zealand | 14 | 1,841,674 | 287,498 | 1.42 | 1.21 | 9.38 | 9.10 | 16.29 | 73% | 7% | 73% | 1 | 2,958,258 | 134,600 | 1.60 | 1.08 | 10.45 | 3.62 | . | 0% | 0% | 100% |
| Norway | 6 | 10,300,000 | 671,068 | 1.19 | 1.29 | 2.15 | -5.46 | 17.06 | 17% | 0% | 50% | 8 | 1,400,684 | 287,032 | 1.37 | 1.25 | 8.77 | 5.93 | 62.50 | 67% | 0% | 56% |
| Peru | 4 | 47,600,000 | 1,035,130 | 1.08 | 0.95 | 7.18 | 8.67 | 3.73 | 75% | 0% | 75% | 8 | 1,400,684 | 287,032 | 1.37 | 1.25 | 8.77 | 5.93 | 62.50 | 67% | 0% | 56% |
| Philippines | 10 | 4,655,478 | 180,993 | 1.45 | 0.95 | 6.18 | 1.80 | 26.94 | 82% | 0% | 64% | 19 | 89,100,000 | 2,744,606 | 1.23 | 1.11 | 5.26 | 5.77 | 26.26 | 81% | 0% | 71% |
| Portugal | 7 | 22,800,000 | 4,152,492 | 1.19 | 1.07 | 3.76 | 3.00 | 3.00 | 75% | 0% | 63% | 8 | 1,226,819 | 105,568 | 3.19 | 1.13 | 9.52 | 5.80 | 70.00 | 55% | 9% | 73% |
| Singapore | 6 | 3,489,887 | 379,488 | 1.72 | 1.44 | 7.31 | 10.20 | 26.20 | 67% | 0% | 83% | 21 | 21,900,000 | 276,353 | 1.92 | 2.58 | 9.61 | 6.07 | 25.50 | 59% | 0% | 91% |
| South Africa | 8 | 3,863,301 | 17,758 | 1.08 | 1.72 | 1.00 | 16.59 | 27.00 | 50% | 0% | 75% | 1 | 3,210,228 | . | 2.98 | . | 7.69 | . | 100% | 0% | 0% | 100% |
| South Korea | 16 | 35,600,000 | 6,566,175 | 1.25 | 1.01 | 1.81 | 5.74 | 10.25 | 63% | 0% | 88% | 80 | 4,534,946 | 200,914 | 1.62 | 1.43 | 8.56 | 5.08 | 53.70 | 71% | 2% | 80% |
| Spain | 16 | 22,400,000 | 610,590 | 1.47 | 1.29 | 5.72 | 3.18 | 19.44 | 63% | 0% | 75% | 139 | 9,602,793 | 348,592 | 1.70 | 1.35 | 6.69 | 3.16 | 28.00 | 64% | 1% | 64% |
| Sweden | 5 | 7,864,595 | 195,672 | 1.21 | 3.46 | 6.55 | -42.20 | 20.00 | 60% | 0% | 100% | 80 | 4,534,946 | 200,914 | 1.62 | 1.43 | 8.56 | 5.08 | 53.70 | 71% | 2% | 80% |
| Switzerland | 8 | 5,671,645 | 228,676 | 2.51 | 1.09 | 6.89 | 5.81 | 30.63 | 60% | 0% | 70% | 1 | 3,210,228 | . | 2.98 | . | 7.69 | . | 100% | 0% | 0% | 100% |
| Taiwan | 2 | 156,000,000 | 1,321,068 | 1.39 | 1.03 | 3.64 | 8.36 | 50% | 50% | 0% | 50% | 80 | 4,534,946 | 200,914 | 1.62 | 1.43 | 8.56 | 5.08 | 53.70 | 71% | 2% | 80% |
| Thailand | 9 | 4,512,538 | 145,610 | 1.06 | 0.88 | 3.18 | 7.54 | 25.00 | 78% | 0% | 78% | 139 | 9,602,793 | 348,592 | 1.70 | 1.35 | 6.69 | 3.16 | 28.00 | 64% | 1% | 64% |
| Turkey | 2 | 8,688,461 | 106,986 | 1.56 | 2.58 | 8.03 | 0.05 | 46.51 | 100% | 0% | 100% | 80 | 4,534,946 | 200,914 | 1.62 | 1.43 | 8.56 | 5.08 | 53.70 | 71% | 2% | 80% |
| United Kingdom | 30 | 4,645,575 | 22,387 | 2.35 | 2.26 | 6.75 | -8.40 | 100.00 | 88% | 0% | 52% | 139 | 9,602,793 | 348,592 | 1.70 | 1.35 | 6.69 | 3.16 | 28.00 | 64% | 1% | 64% |
| United States | 84 | 6,794,279 | 497,705 | 1.51 | 1.30 | 6.18 | 5.04 | 100.00 | 73% | 3% | 83% | 80 | 4,534,946 | 200,914 | 1.62 | 1.43 | 8.56 | 5.08 | 53.70 | 71% | 2% | 80% |
| Venezuela | 2 | 21,800,000 | 5,006,285 | 1.67 | 0.67 | 8.30 | 11.35 | 44.00 | 100% | 50% | 100% | 139 | 9,602,793 | 348,592 | 1.70 | 1.35 | 6.69 | 3.16 | 28.00 | 64% | 1% | 64% |
| Total | 506 | 7,724,915 | 379,488 | 1.45 | 1.30 | 5.52 | 4.90 | 34.20 | 68% | 1% | 72% | 506 | 7,724,915 | 379,488 | 1.45 | 1.30 | 5.52 | 4.90 | 34.20 | 68% | 1% | 72% |

Table 3. Description of the sample of Cross-Border Mergers

The sample contains all cross-border mergers with information available in the Securities Data Corporation Mergers and Acquisitions Database for which a matching domestic merger with available accounting data in Worldscope could be identified. All numbers are medians, except for the columns “% Non Horizontal”, “% Hostile”, and “% Cash”, which are means.

| Shareholder Protection | | | | | Creditor Protection | | | | | GDP per Capita | | | | |
|-------------------------------|--------------|---|--------------|-------|----------------------------|--------------|-------------------------------------|--------------|-------|-----------------------|--------------|--------------------------------------|--------------|-------|
| Acquiror | | | | | Acquiror | | | | | Acquiror | | | | |
| | | Below Median | Above Median | Total | | | Below Median | Above Median | Total | | | Below Median | Above Median | Total |
| Target | Below Median | 151 | 114 | 265 | Target | Below Median | 131 | 124 | 255 | Target | Below Median | 174 | 124 | 298 |
| | Above Median | 124 | 117 | 241 | | Above Median | 126 | 125 | 251 | | Above Median | 138 | 70 | 208 |
| | Total | 275 | 231 | 506 | | Total | 257 | 249 | 506 | | Total | 312 | 194 | 506 |
| | | Pearson $\chi^2 = 1.959$ (0.1620) | | | | | Pearson $\chi^2 = 0.087$ (0.7680) | | | | | Pearson $\chi^2 = 3.5891^*$ (0.0580) | | |
| Accounting Standards | | | | | Corruption | | | | | | | | | |
| Acquiror | | | | | Acquiror | | | | | | | | | |
| | | Below Median | Above Median | Total | | | Below Median | Above Median | Total | | | | | |
| Target | Below Median | 217 | 62 | 279 | Target | Below Median | 265 | 111 | 376 | | | | | |
| | Above Median | 153 | 74 | 227 | | Above Median | 102 | 28 | 130 | | | | | |
| | Total | 370 | 136 | 506 | | Total | 367 | 139 | 506 | | | | | |
| | | Pearson $\chi^2 = 8.022^{***}$ (0.0050) | | | | | Pearson $\chi^2 = 2.975^*$ (0.0850) | | | | | | | |

Table 4 Cross-Border Mergers and Investor Protection

We classify each country in our sample relative to the median value of the investor protection indices in LLSV (1998). Subsequently, we classify the mergers depending on the country of origin of both the target and the acquiring firm. The table shows the number of deals in each category. GDP per capita data is from the World Bank Development Indicators, and corresponds to the year when the acquisition is announced. The Pearson's chi-squared is a test for the hypothesis that the rows and columns in a two-way table are independent. P-values are in parentheses.

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

| Panel A: Targets | | | | |
|--|------------------|---------------------|--------------------|---------------------|
| | (-100,-3) | (-2,+2) | (0,+10) | (0,+100) |
| <u>All Announcements</u> | -0.05% | 14.20% *** | 11.94% *** | 33.98% *** |
| <u>By GDP per capita in target country</u> | | | | |
| Below Median | -0.14% | 11.11% *** | 10.50% *** | 29.39% *** |
| Above Median | 0.12% ** | 20.96% *** | 18.10% *** | 51.11% *** |
| Kruskal-Wallis Test (p-value) | 0.5 (0.4614) | 9.5 *** (0.0021) | 6.1 ** (0.0135) | 3.3 * (0.0707) |
| <u>By Attitude</u> | | | | |
| Friendly | -0.05% | 13.43% *** | 11.71% *** | 34.27% *** |
| Hostile | -0.01% | 28.44% ** | 31.74% ** | 45.58% |
| Kruskal-Wallis Test (p-value) | 0.9 (0.3358) | 2.2 (0.1345) | 3.6 * (0.0588) | 0.8 (0.3639) |
| <u>By Sub-periods</u> | | | | |
| Before December 1995 | -0.06% | 13.62% | 12.01% | 33.45% |
| After December 1995 | 0.14% | 15.52% *** | 13.79% *** | 49.72% *** |
| Kruskal-Wallis Test (p-value) | 0.9 (0.3564) | 0.9 (0.3311) | 0.4 (0.5302) | 7.4 *** (0.0066) |
| Panel B: Acquirors | | | | |
| | (-100,-3) | (-2,+2) | (0,+10) | (0,+100) |
| <u>All Announcements</u> | -0.09% *** | -1.12% ** | -0.91% | -5.36% *** |
| <u>By GDP per capita in target country</u> | | | | |
| Below Median | -0.06% * | -1.03% ** | -0.75% | -4.79% ** |
| Above Median | -0.10% *** | -1.44% * | -1.81% * | -6.77% ** |
| Kruskal-Wallis Test (p-value) | 1.7 (0.1927) | 0.2 (0.6834) | 1.6 (0.1998) | 0.2 (0.6308) |
| <u>By Attitude</u> | | | | |
| Friendly | -0.09% *** | -1.14% ** | -1.02% * | -5.71% *** |
| Hostile | 0.07% | -1.27% | 2.01% | 17.96% * |
| Kruskal-Wallis Test (p-value) | 2.2 (0.1374) | 0.0 (0.9743) | 0.8 (0.3625) | 5.5 ** (0.0188) |
| <u>By Sub-periods</u> | | | | |
| Before December 1995 | -0.08% *** | -1.01% ** | -0.91% | -4.65% *** |
| After December 1995 | -0.09% | -2.80% ** | -1.59% | -12.52% ** |
| Kruskal-Wallis Test (p-value) | 0.3 (0.6015) | 0.4 (0.5381) | 0.0 (0.9447) | 1.5 (0.2200) |

Table 5. Buy-and-Hold Abnormal Returns around Acquisition Announcements

The table reports buy-and-hold cumulative abnormal returns (BHCAR) for the cross-border mergers in the sample, in four different subperiods. Panel A reports BHCAR for target firms; Panel B reports BHCAR for acquiring firms. We first estimate a market model regression of dollar-denominated daily returns on the corresponding dollar-denominated market return and the MSCI world index. Return data is obtained from datastream. Abnormal returns are calculated for a window around the tender offer announcement for all the firms for which daily data are available. Market model regressions are performed in the following way:

$$R_{ijt} = \alpha_i + \beta_i^m R_{m,t} + \beta_i^w R_{wt} + \varepsilon_{it}, \quad t = -260, \dots, -100$$

where R_{ijt} refers to the daily stock return for target firm i in country j , $R_{m,t}$ is the market return in country j , and R_{wt} is the world index. The residual ε_{it} defines the excess return for each firm and day. We compute abnormal returns, and accumulate then over four different sub-periods: $(-100, -3)$, $(-2, +2)$, $(0, +10)$, and $(0, +100)$. The Kruskal-Wallis is a test for the hypothesis that two or more distributions are independent. P-values are in parentheses.

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

GDP per Capita - Acquiror

| | | Below Median | | Above Median | | All | | Difference (p-value) | |
|-------------------------|----------------------|--------------|-----------------------------------|--------------|-----------------------------------|------------|-----------------------------------|----------------------|-----------------------------------|
| | | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR |
| GDP per Capita - Target | Below Median | 13.82% *** | -0.04% | 21.51% *** | 9.87% *** | 14.22% *** | 0.45% | (0.0003) | (0.0006) |
| | Above Median | 12.35% *** | -4.76% | 16.67% *** | 1.99% | 13.83% *** | -2.55% | (0.9960) | (0.2874) |
| | All | 13.76% *** | -0.25% | 20.07% *** | 7.42% *** | 14.20% *** | 0.26% | (0.0045) | (0.3314) |
| | Difference (p-value) | (0.4401) | (0.2377) | (0.0639) | (0.0706) | (0.3070) | (0.0022) | | |

Shareholder Protection - Acquiror

| | | Below Median | | Above Median | | All | | Difference (p-value) | |
|---------------------------------|----------------------|--------------|-----------------------------------|--------------|-----------------------------------|------------|-----------------------------------|----------------------|-----------------------------------|
| | | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR |
| Shareholder Protection - Target | Below Median | 13.92% *** | 0.45% | 18.70% *** | 5.78% ** | 14.18% *** | 0.74% | (0.0216) | (0.0855) |
| | Above Median | 5.52% *** | -13.41% *** | 21.68% *** | 1.31% | 14.41% ** | -5.13% ** | (0.0000) | (0.0016) |
| | All | 13.59% *** | -0.10% | 20.10% *** | 3.64% * | 14.20% *** | 0.26% | (0.0002) | (0.0163) |
| | Difference (p-value) | (0.0013) | (0.0001) | (0.6288) | (0.3698) | (0.8679) | (0.0879) | | |

Creditor Protection - Acquiror

| | | Below Median | | Above Median | | All | | Difference (p-value) | |
|------------------------------|----------------------|--------------|-----------------------------------|--------------|-----------------------------------|------------|-----------------------------------|----------------------|-----------------------------------|
| | | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR |
| Creditor Protection - Target | Below Median | 14.31% *** | 0.42% | 8.35% *** | -5.95% ** | 14.03% *** | 0.10% | (0.0507) | (0.0571) |
| | Above Median | 23.70% *** | 10.16% *** | 7.15% *** | -6.32% ** | 16.26% ** | 2.32% | (0.0009) | (0.0005) |
| | All | 14.72% *** | 0.81% | 7.83% *** | -6.10% *** | 14.20% *** | 0.26% | (0.0025) | (0.4100) |
| | Difference (p-value) | (0.0105) | (0.0044) | (0.5959) | (0.7214) | (0.6040) | (0.0045) | | |

Accounting Standards - Acquiror

| | | Below Median | | Above Median | | All | | Difference (p-value) | |
|-------------------------------|----------------------|--------------|-----------------------------------|--------------|-----------------------------------|------------|-----------------------------------|----------------------|-----------------------------------|
| | | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR |
| Accounting Standards - Target | Below Median | 13.46% *** | -0.12% | 21.82% *** | 4.91% * | 13.96% *** | 0.18% | (0.0507) | (0.0721) |
| | Above Median | 10.50% *** | -9.76% * | 23.24% *** | 6.60% * | 19.37% ** | 1.90% | (0.0009) | (0.0165) |
| | All | 13.42% *** | -0.26% | 22.32% *** | 5.52% ** | 14.20% *** | 0.26% | (0.0025) | (0.5086) |
| | Difference (p-value) | (0.6701) | (0.0973) | (0.7615) | (0.7241) | (0.0258) | (0.0092) | | |

Corruption - Acquiror

| | | Below Median | | Above Median | | All | | Difference (p-value) | |
|---------------------|----------------------|--------------|-----------------------------------|--------------|-----------------------------------|------------|-----------------------------------|----------------------|-----------------------------------|
| | | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR |
| Corruption - Target | Below Median | 14.34% *** | 0.17% | 12.39% *** | -1.36% | 14.27% *** | 0.11% | (0.0001) | (0.6611) |
| | Above Median | 14.02% *** | 3.58% | 5.49% ** | 2.66% | 12.52% ** | 3.42% | (0.0384) | (0.8811) |
| | All | 14.33% *** | 0.30% | 11.23% *** | -0.70% | 14.20% *** | 0.26% | (0.0000) | (0.2863) |
| | Difference (p-value) | (0.9517) | (0.3356) | (0.2196) | (0.5607) | (0.5749) | (0.7912) | | |

Table 6. Announcement CARs for target firms and Investor Protection

The table shows CARs and matching-acquisition-adjusted buy-and-hold CARs for the target company at the announcement of cross-border mergers. We calculate buy-and-hold abnormal returns on days $t=-1$ to $t=+1$ from a market model estimated using daily firm and market returns over the period $t=-260$ to $t=-100$ trading days relative to the announcement day of the acquisition. Returns are in US dollars. We compute CARs for both the initial sample and the matching sample, and calculate matching-acquisition adjusted BHCARs as $[BHCAR^{CB}-BHCAR^{DOM}]$, where $BHCAR^{CB}$ corresponds to the cross-border merger, and $BHCAR^{DOM}$ corresponds to the matching domestic acquisition. We classify deals depending on the indices of investor protection in the country of origin of both the target and the acquiring firm. Market data is from Datastream. Univariate tests of significance are based on cross-sectional t-statistics. Tests of differences are based on a non-parametric Kruskal-Wallis tests, with the null hypothesis that the two samples are from the same population. P-values are in parentheses.

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

| | | GDP per Capita - Acquiror | | | | | | | |
|---------------------------------|----------------------|-----------------------------------|-----------------------------------|--------------|-----------------------------------|------------|-----------------------------------|----------------------|-----------------------------------|
| | | Below Median | | Above Median | | All | | Difference (p-value) | |
| | | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR |
| GDP per Capita - Target | Below Median | -1.02% *** | -1.11% *** | -0.95% | -1.18% | -1.02% *** | -1.11% *** | (0.6747) | (0.7535) |
| | Above Median | -2.78% *** | -1.87% * | -2.34% * | -2.14% | -2.63% *** | -1.96% ** | (0.5739) | (0.9338) |
| | All | -1.10% *** | -1.15% *** | -1.39% * | -1.51% * | -1.12% *** | -1.17% *** | (0.6279) | (0.3816) |
| | Difference (p-value) | (0.1372) | (0.5096) | (0.9363) | (0.6836) | (0.1614) | (0.5689) | | |
| | | Shareholder Protection - Acquiror | | | | | | | |
| | | Below Median | | Above Median | | All | | Difference (p-value) | |
| | | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR |
| Shareholder Protection - Target | Below Median | -1.05% *** | -1.10% *** | -1.51% * | -3.40% *** | -1.07% *** | -1.22% *** | (0.6448) | (0.0155) |
| | Above Median | -1.23% | -0.73% | -2.07% ** | -0.53% | -1.69% ** | -0.62% | (0.3545) | (0.8695) |
| | All | -1.06% *** | -1.09% *** | -1.79% *** | -1.97% *** | -1.12% *** | -1.17% *** | (0.2754) | (0.4032) |
| | Difference (p-value) | (0.8133) | (0.5761) | (0.6188) | (0.0331) | (0.5311) | (0.1588) | | |
| | | Creditor Protection - Acquiror | | | | | | | |
| | | Below Median | | Above Median | | All | | Difference (p-value) | |
| | | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR |
| Creditor Protection - Target | Below Median | -1.08% *** | -1.02% *** | -1.34% | -0.86% | -1.09% *** | -1.01% *** | (0.8864) | (0.7690) |
| | Above Median | -1.18% | -3.21% *** | -1.97% ** | -3.22% ** | -1.54% ** | -3.21% *** | (0.9268) | (0.9366) |
| | All | -1.08% *** | -1.11% *** | -1.61% ** | -1.84% ** | -1.12% *** | -1.17% *** | (0.9616) | (0.0174) |
| | Difference (p-value) | (0.6794) | (0.0677) | (0.7571) | (0.1438) | (0.6162) | (0.5186) | | |
| | | Accounting Standards - Acquiror | | | | | | | |
| | | Below Median | | Above Median | | All | | Difference (p-value) | |
| | | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR |
| Accounting Standards - Target | Below Median | -1.06% *** | -1.05% *** | -2.67% *** | -2.33% ** | -1.15% *** | -1.12% *** | (0.1690) | (0.2105) |
| | Above Median | 1.76% | 2.24% | -1.40% | -4.17% *** | -0.39% | -2.26% * | (0.0282) | (0.0143) |
| | All | -1.02% *** | -1.00% *** | -2.24% *** | -2.93% *** | -1.12% *** | -1.17% *** | (0.0637) | (0.2497) |
| | Difference (p-value) | (0.0568) | (0.1449) | (0.8473) | (0.2176) | (0.8955) | (0.0167) | | |
| | | Corruption - Acquiror | | | | | | | |
| | | Below Median | | Above Median | | All | | Difference (p-value) | |
| | | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR | CAR | Matching Acquisition Adjusted CAR |
| Corruption - Target | Below Median | -1.14% *** | -1.14% *** | -1.42% | -1.30% | -1.15% *** | -1.15% *** | (0.7778) | (0.9252) |
| | Above Median | -1.66% | -2.57% *** | 4.56% | 2.48% | -0.53% | -1.69% * | (0.0244) | (0.0179) |
| | All | -1.16% *** | -1.19% *** | -0.40% | -0.67% | -1.12% *** | -1.17% *** | (0.5726) | (0.3340) |
| | Difference (p-value) | (0.2972) | (0.0687) | (0.0783) | (0.0929) | (0.9019) | (0.5058) | | |

Table 7. Announcement CARs for acquiring firms and Investor Protection

The table shows CARs and matching-acquisition-adjusted buy-and-hold CARs for the target company at the announcement of cross-border mergers. We calculate buy-and-hold abnormal returns on days $t=-1$ to $t=+1$ from a market model estimated using daily firm and market returns over the period $t=-260$ to $t=-100$ trading days relative to the announcement day of the acquisition. Returns are in US dollars. We compute CARs for both the initial sample and the matching sample, and calculate matching-acquisition adjusted BHCARs as $[BHCAR^{CB} - BHCAR^{DOM}]$, where $BHCAR^{CB}$ corresponds to the cross-border merger, and $BHCAR^{DOM}$ corresponds to the matching domestic acquisition. We then classify deals depending on the indices of investor protection in the country of origin of both the target and the acquiring firm. Market data is from Datastream. Univariate tests of significance are based on cross-sectional t-statistics. Tests of differences are based on a non-parametric Kruskal-Wallis tests, with the null hypothesis that the two samples are from the same population. P-values are in parentheses.

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

| | Economic Significance | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
|--|-----------------------|------------|----------|------------|------------|------------|------------|------------|------------|------------|----------|-----------|
| Shareholder Protection: Acquiror | | | -10.791 | | | | | | | | | |
| | | | 1.16 | | | | | | | | | |
| Shareholder Protection: Target | | | 0.302 | | | | | | | | | |
| | | | 1.23 | | | | | | | | | |
| Creditor Protection: Acquiror | | | -3.849 | | | | | | | | | |
| | | | 1.21 | | | | | | | | | |
| Creditor Protection: Target | | | -0.015 | | | | | | | | | |
| | | | 0.08 | | | | | | | | | |
| Accounting Standards: Target | | | -0.109 | | | | | | | | | |
| | | | 0.26 | | | | | | | | | |
| Accounting Standards: Acquiror | | | 36.49 | | | | | | | | | |
| | | | 1.17 | | | | | | | | | |
| MarkCap to GDP: Acquiror minus Target Country | | | | 0.056 | | | | | | | | |
| | | | | 0.42 | | | | | | | | |
| Shareholder Protection Difference: Acquiror minus Target | | | | | 0.425 | 0.008 | | | | | | |
| | | | | | 0.84 | 0.02 | | | | | | |
| Shareholder Protection Difference, 100% Acquisitions | 0.204 | | | | | 1.258** | | | | | | |
| | | | | | | 2.24 | | | | | | |
| Creditor Protection Difference: Acquiror minus Target | | | | | | | -0.011 | 0.252 | | | | |
| | | | | | | | 0.02 | 0.45 | | | | |
| Creditor Protection Difference, 100% Acquisitions | | | | | | | | -0.624 | | | | |
| | | | | | | | | 0.96 | | | | |
| Accounting Standards Difference: Acquiror minus Target | | | | | | | | | -0.582 | -1.363 | | |
| | | | | | | | | | 0.65 | 1.41 | | |
| Accounting Standards Difference, 100% Acquisitions | 0.178 | | | | | | | | | 2.479* | | |
| | | | | | | | | | | 1.96 | | |
| Corruption Index Difference, Acquiror minus Target | | | | | | | | | | | -1.841 | -4.359 |
| | | | | | | | | | | | 0.52 | 1.11 |
| Corruption Difference, 100% Acquisitions | | | | | | | | | | | | 7.4 |
| | | | | | | | | | | | | 1.45 |
| Log (GDP per Capita): Target Country | | 10.361 | 2.327 | 10.999 | 10.417 | 8.461 | 7.201 | 9.097 | 9.057 | 5.302 | 2.158 | 0.365 |
| | | 1.4 | 0.58 | 1.45 | 1.4 | 1.14 | 0.96 | 1.18 | 1.18 | 0.67 | 0.57 | 0.09 |
| Log (GDP per Capita): Acquiror Country | | -65.132 | -223.332 | -93.788 | -48.967 | -93.388 | -34.941 | -85.65 | -78.062 | -18.279 | -248.166 | -249.986 |
| | | 0.15 | 1.19 | 0.21 | 0.11 | 0.21 | 0.08 | 0.19 | 0.17 | 0.04 | 1.45 | 1.46 |
| # Acquisitions / # Listed Firms in Target Country | -0.221 | -547.176** | -57.383 | -521.593** | -460.320* | -397.284 | -542.662** | -540.552** | -592.293** | 634.611*** | -12.093 | -28.435 |
| | | 2.37 | 0.53 | 2.18 | 1.82 | 1.57 | 2.27 | 2.26 | 2.45 | 2.64 | 0.13 | 0.31 |
| # Cross-Border Acquisitions / # Listed Firms in Target Country | | 444.773 | -15.692 | 407.042 | 314.427 | 181.101 | 465.927 | 418.05 | 464.971 | 519.043 | -104.518 | -79.273 |
| | | 1.04 | 0.08 | 0.93 | 0.69 | 0.4 | 1.07 | 0.95 | 1.08 | 1.21 | 0.63 | 0.47 |
| Non-Horizontal Merger (Y/N) | -0.013 | -9.665 | 6.68 | -9.368 | -8.61 | -10.001 | -9.849 | -9.77 | -10.078 | -10.442 | 7.356* | 6.915 |
| | | 0.85 | 1.48 | 0.82 | 0.76 | 0.88 | 0.88 | 0.87 | 0.89 | 0.93 | 1.66 | 1.56 |
| Cash Payment (Y/N) | -0.078 | -9.363 | -9.675** | -9.276 | -9.582 | -8.976 | -7.09 | -6.436 | -8.372 | -9.606 | -9.816** | -10.129** |
| | | 0.77 | 2.02 | 0.76 | 0.78 | 0.74 | 0.58 | 0.53 | 0.68 | 0.78 | 2.09 | 2.16 |
| Hostile Acquisition (Y/N) | 0.332 | 190.963*** | 18.051 | 188.732*** | 186.173*** | 184.790*** | 219.309*** | 221.846*** | 194.458*** | 193.192*** | 18.579 | 16.685 |
| | | 6.37 | 1.32 | 6.19 | 6.1 | 6.11 | 6.84 | 6.9 | 6.38 | 6.38 | 1.51 | 1.35 |
| Change in Exchange Rate (Local Currency - Target, per \$) | | -70.589 | -19.071 | -75.001 | -89.051 | -92.908 | -72.909 | -75.487 | -64.937 | -71.232 | -30.869 | -30.652 |
| | | 1.22 | 0.77 | 1.27 | 1.44 | 1.51 | 1.25 | 1.29 | 1.11 | 1.22 | 1.4 | 1.39 |
| Change in Exchange Rate (Local Currency - Acquiror, per \$) | | 86.301 | -2.47 | 84.651 | 89.493 | 82.901 | 81.295 | 85.368 | 82.482 | 67.965 | -5.741 | -11.186 |
| | | 0.74 | 0.05 | 0.73 | 0.77 | 0.72 | 0.71 | 0.74 | 0.71 | 0.59 | 0.13 | 0.25 |
| Percentage of Shares Sought by Acquiror | | 0.142 | -0.058 | 0.158 | 0.173 | 0.181 | 0.184 | 0.178 | 0.135 | 0.172 | -0.038 | -0.017 |
| | | 0.85 | 0.88 | 0.92 | 1.01 | 1.07 | 1.11 | 1.07 | 0.81 | 1.03 | 0.6 | 0.26 |
| Observations | | 241 | 234 | 241 | 241 | 241 | 240 | 240 | 241 | 241 | 235 | 235 |
| Number of Countries (Target) | | 31 | 30 | 31 | 31 | 31 | 30 | 30 | 31 | 31 | 31 | 31 |
| R2 overall | | 0.28 | 0.32 | 0.28 | 0.28 | 0.3 | 0.3 | 0.3 | 0.28 | 0.29 | 0.31 | 0.32 |
| R2 between | | 0.05 | 0.55 | 0.05 | 0.05 | 0.05 | 0.17 | 0.15 | 0.05 | 0.04 | 0.44 | 0.4 |
| R2 within | | 0.29 | 0.3 | 0.29 | 0.29 | 0.31 | 0.29 | 0.29 | 0.29 | 0.31 | 0.29 | 0.3 |
| YEAR EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| INDUSTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| TARGET COUNTRY EFFECTS | | FIXED | RANDOM | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| ACQUIRING COUNTRY EFFECTS | | FIXED | RANDOM | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |

Table 8. Panel Regressions. Matching-Acquisition-Adjusted CAR for Target Firms (I)

We calculate buy-and-hold abnormal returns on days $t=-1$ to $t=+1$ from a market model estimated using daily firm and market returns over the period $t=-260$ to $t=-100$ trading days relative to the announcement day of the acquisition. Returns are in US dollars. We compute CARs for both the initial sample and the matching sample, and calculate matching-acquisition adjusted CARs as $[CAR^{CB}-CAR^{DOM}]$, where CAR^{CB} corresponds to the cross-border merger and CAR^{DOM} corresponds to the matching domestic acquisition. GDP per capita is in constant 1995 USD, and is obtained from the World Bank Development Indicators. We construct two indices of merger intensity from the total sample of acquisitions of targets in the corresponding country, from the Securities Data Corporation M&A database. We compute, for every year, the number of (cross-border) mergers, and divide this number by the number of publicly listed firms in the country. Data on number of firms, market capitalization to GDP, and exchange rates is from the World Bank Development Indicators. Robust t-statistics are in parentheses.

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

| | Economic Significance | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|--|-----------------------|------------|------------|------------|------------|------------|------------|----------|-----------|
| Shareholder Protection Difference, only positive | 0.070 | 0.971* | -0.141 | | | | | | |
| | | 1.71 | 0.23 | | | | | | |
| Shareholder Protection Difference, only negative | | -0.864 | -0.846 | | | | | | |
| | | 1.07 | 0.89 | | | | | | |
| Shareholder Prot. Diff., only Positive, 100% Acquisitions | 0.356 | | 4.194*** | | | | | | |
| | | | 4.46 | | | | | | |
| Shareholder Prot. Diff., only Negative, 100% Acquisitions | | | -0.404 | | | | | | |
| | | | 0.45 | | | | | | |
| Creditor Protection Difference, only positive | | | | -1.473 | -0.863 | | | | |
| | | | | 1.47 | 0.78 | | | | |
| Creditor Protection Difference, only negative | | | | 0.64 | 0.509 | | | | |
| | | | | 1.02 | 0.66 | | | | |
| Creditor Prot. Diff., only Positive, 100% Acquisitions | | | | | -1.439 | | | | |
| | | | | | 1.28 | | | | |
| Creditor Prot. Diff., only Negative, 100% Acquisitions | | | | | 0.275 | | | | |
| | | | | | 0.25 | | | | |
| Accounting Standards Difference, only positive | | | | | | 0.03 | -0.703 | | |
| | | | | | | 0.02 | 0.55 | | |
| Accounting Standards Difference, only negative | | | | | | -1.748 | -2.833 | | |
| | | | | | | 0.93 | 1.27 | | |
| Accounting St. Diff., only Positive, 100% Acquisitions | 0.249 | | | | | | 5.382** | | |
| | | | | | | | 2.39 | | |
| Accounting St. Diff., only Negative, 100% Acquisitions | | | | | | | 0.68 | | |
| | | | | | | | 0.3 | | |
| Corruption Index Difference, only positive | | | | | | | | -1.994 | -4.289 |
| | | | | | | | | 0.47 | 0.96 |
| Corruption Index Difference, only negative | | | | | | | | -1.547 | -4.192 |
| | | | | | | | | 0.27 | 0.52 |
| Corruption Diff., only Positive, 100% Acquisitions | 0.190 | | | | | | | | 15.849* |
| | | | | | | | | | 1.7 |
| Corruption Diff., only Negative, 100% Acquisitions | | | | | | | | | 2.528 |
| | | | | | | | | | 0.28 |
| Log (GDP per Capita): Target Country | 0.086 | 12.235* | 5.538 | 8.137 | 11.345 | 9.93 | 4.32 | 2.076 | 0.374 |
| | | 1.65 | 0.76 | 1.09 | 1.44 | 1.27 | 0.54 | 0.52 | 0.09 |
| Log (GDP per Capita): Acquiror Country | | -84.543 | -193.41 | -78.134 | -138.87 | -125.35 | -113.875 | -248.359 | -225.459 |
| | | 0.19 | 0.45 | 0.17 | 0.31 | 0.28 | 0.25 | 1.44 | 1.3 |
| # Acquisitions / # Listed Firms in Target Country | -0.204 | -467.470* | -219.751 | -529.124** | -538.106** | -571.552** | -553.144** | -11.644 | -39.728 |
| | | 1.86 | 0.89 | 2.22 | 2.26 | 2.35 | 2.27 | 0.13 | 0.43 |
| # Cross-Border Acquisitions / # Listed Firms in Target Country | | 371.312 | -28.009 | 405.926 | 359.896 | 433.597 | 471.379 | -103.727 | -61.554 |
| | | 0.82 | 0.06 | 0.93 | 0.82 | 1 | 1.1 | 0.62 | 0.36 |
| Non-Horizontal Merger (Y/N) | -0.011 | -8.509 | -7.276 | -7.9 | -7.55 | -10.47 | -10.833 | 7.341* | 7.193 |
| | | 0.75 | 0.67 | 0.7 | 0.67 | 0.92 | 0.96 | 1.65 | 1.62 |
| Cash Payment (Y/N) | -0.088 | -12.001 | -18.121 | -7.985 | -7.949 | -9.56 | -13 | -9.830** | -10.098** |
| | | 0.98 | 1.53 | 0.66 | 0.65 | 0.77 | 1.05 | 2.08 | 2.15 |
| Hostile Acquisition (Y/N) | 0.338 | 188.010*** | 184.022*** | 214.929*** | 215.769*** | 194.151*** | 191.075*** | 18.569 | 15.073 |
| | | 6.2 | 6.35 | 6.71 | 6.7 | 6.36 | 6.33 | 1.5 | 1.21 |
| Change in Exchange Rate (Local Currency - Target, per \$) | | -81.035 | -68.347 | -75.767 | -79.007 | -63.609 | -69.396 | -30.954 | -28.898 |
| | | 1.31 | 1.16 | 1.3 | 1.36 | 1.08 | 1.19 | 1.4 | 1.31 |
| Change in Exchange Rate (Local Currency - Acquiror, per \$) | | 78.969 | 55.553 | 109.587 | 100.867 | 73.492 | 50.786 | -6.043 | -7.135 |
| | | 0.69 | 0.5 | 0.95 | 0.86 | 0.63 | 0.44 | 0.13 | 0.16 |
| Percentage of Shares Sought by Acquiror | | 0.109 | -0.283 | 0.165 | 0.281 | 0.122 | -0.033 | -0.038 | -0.051 |
| | | 0.64 | 1.4 | 1 | 1.34 | 0.72 | 0.15 | 0.6 | 0.65 |
| Observations | | 241 | 241 | 240 | 240 | 241 | 241 | 235 | 235 |
| Number of Countries (Target) | | 31 | 31 | 30 | 30 | 31 | 31 | 31 | 31 |
| R2 overall | | 0.29 | 0.36 | 0.31 | 0.31 | 0.28 | 0.3 | 0.31 | 0.33 |
| R2 between | | 0.05 | 0.04 | 0.13 | 0.16 | 0.05 | 0.04 | 0.44 | 0.35 |
| R2 within | | 0.31 | 0.39 | 0.31 | 0.31 | 0.29 | 0.33 | 0.29 | 0.31 |
| YEAR EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| INDUSTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| TARGET COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| ACQUIRING COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |

Table 9. Panel Regressions. Matching-Acquisition-Adjusted CAR for Target Firms (II)

We calculate buy-and-hold abnormal returns on days $t=-1$ to $t=+1$ from a market model estimated using daily firm and market returns over the period $t=-260$ to $t=-100$ trading days relative to the announcement day of the acquisition. Returns are in dollars. We compute CARs for both the original sample and the matching sample, and calculate matching-acquisition adjusted CARs as $[CAR^{CB}-CAR^{DOM}]$, where CAR^{CB} corresponds to the cross-border merger and CAR^{DOM} corresponds to the matching domestic acquisition. GDP per capita is in constant 1995 US dollars, and is obtain from the World Bank Development Indicators. We construct two indices of merger intensity from the total sample of acquisitions of targets in the corresponding country, from the Securities Data Corporation M&A database. We compute, for every year, the number of (cross-border) mergers, and divide this number by the number of publicly listed firms in the country. Data on number of firms, market capitalization to GDP, and exchange rates is from the World Bank Development Indicators. Robust t-statistics are in parentheses.

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

| | Economic Significance | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
|--|-----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|
| Shareholder Protection: Acquiror | | | 0.106 0.57 | | | | | | | | | |
| Shareholder Protection: Target | | | 2.754 0.22 | | | | | | | | | |
| Creditor Protection: Acquiror | | | 0.149 1.01 | | | | | | | | | |
| Creditor Protection: Target | | | -2.548 0.25 | | | | | | | | | |
| Accounting Standards: Target | | | -4.971 0.4 | | | | | | | | | |
| Accounting Standards: Acquiror | | | 0.134 0.31 | | | | | | | | | |
| MarkCap to GDP: Acquiror minus Target Country | | | | -0.078 1.05 | | | | | | | | |
| Shareholder Protection Difference: Acquiror minus Target | | | | | -4.121 0.61 | -4.46 0.66 | | | | | | |
| Shareholder Protection Difference, 100% Acquisitions | | | | | | -0.109 0.63 | | | | | | |
| Creditor Protection Difference: Acquiror minus Target | | | | | | | 2.957 0.59 | 3.155 0.63 | | | | |
| Creditor Protection Difference, 100% Acquisitions | | | | | | | | -0.15 0.7 | | | | |
| Accounting Standards Difference: Acquiror minus Target | | | | | | | | | -0.162 0.07 | -0.142 0.08 | | |
| Accounting Standards Difference, 100% Acquisitions | | | | | | | | | | -0.451 1.01 | | |
| Corruption Index Difference, Acquiror minus Target | 0.260 | | | | | | | | | | 4.703 1.27 | 6.591* 1.7 |
| Corruption Difference, 100% Acquisitions | | | | | | | | | | | | -7.105 1.64 |
| Log (GDP per Capita): Target Country | | -62.144 0.64 | 26.698 0.29 | -82.472 0.83 | -62.144 0.64 | -67.444 0.69 | -62.144 0.64 | -64.41 0.66 | -62.144 0.64 | -69.176 0.71 | -90.945 0.89 | -99.129 0.98 |
| Log (GDP per Capita): Acquiror Country | | 108.167 0.79 | 6.733 1.06 | 156.343 1.09 | 108.167 0.79 | 109 0.8 | 108.167 0.79 | 94.944 0.69 | 108.167 0.79 | 97.192 0.71 | 152.991 1.07 | 153.652 1.08 |
| # Acquisitions / # Listed Firms in Target Country | | 0.721 0.01 | -14.193 0.12 | -11.056 0.09 | 0.721 0.01 | -2.692 0.02 | 0.721 0.01 | -14.953 0.12 | 0.721 0.01 | -9.897 0.08 | 0.778 0.01 | -4.249 0.03 |
| # Cross-Border Acquisitions / # Listed Firms in Target Country | | -152.603 0.61 | -217.363 0.87 | -128.096 0.51 | -152.603 0.61 | -145.141 0.58 | -152.603 0.61 | -135.643 0.54 | -152.603 0.61 | -121.379 0.48 | -135.926 0.54 | -112.012 0.45 |
| Non-Horizontal Merger (Y/N) | -0.123 | -6.199* 1.78 | -7.042** 1.96 | -6.178* 1.77 | -6.199* 1.78 | -5.944* 1.69 | -6.199* 1.78 | -6.078* 1.74 | -6.199* 1.78 | -5.786 1.65 | -6.621* 1.83 | -6.556* 1.82 |
| Cash Payment (Y/N) | 0.279 | 14.452*** 3.68 | 15.969*** 3.93 | 14.155*** 3.59 | 14.452*** 3.68 | 14.378*** 3.65 | 14.452*** 3.68 | 14.693*** 3.72 | 14.452*** 3.68 | 14.636*** 3.72 | 14.919*** 3.7 | 14.947*** 3.72 |
| Hostile Acquisition (Y/N) | | 4.096 0.35 | 4.013 0.33 | 4.37 0.37 | 4.096 0.35 | 3.979 0.33 | 4.096 0.35 | 5.267 0.44 | 4.096 0.35 | 3.973 0.33 | 3.527 0.29 | 5.129 0.43 |
| Change in Exchange Rate (Local Currency - Target, per \$) | 0.073 | 11.301 0.51 | 45.753** 2.23 | 10.545 0.47 | 11.301 0.51 | 11.338 0.51 | 11.301 0.51 | 10.31 0.46 | 11.301 0.51 | 11.539 0.52 | 10.783 0.47 | 10.506 0.46 |
| Change in Exchange Rate (Local Currency - Acquiror, per \$) | | -10.726 0.31 | -18.566 0.54 | -9.171 0.26 | -10.726 0.31 | -9.62 0.27 | -10.726 0.31 | -10.705 0.31 | -10.726 0.31 | -6.646 0.19 | -4.556 0.13 | 1.864 0.05 |
| Percentage of Shares Sought by Acquiror | | -0.014 0.26 | -0.04 0.75 | -0.022 0.41 | -0.014 0.26 | -0.017 0.32 | -0.014 0.26 | -0.017 0.32 | -0.014 0.26 | -0.032 0.56 | -0.005 0.09 | -0.029 0.51 |
| Observations | | 258 | 252 | 258 | 258 | 258 | 257 | 257 | 258 | 258 | 253 | 253 |
| Number of Countries (Acquiror) | | 18 | 17 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 17 | 17 |
| R2 overall | | 0.09 | 0.4 | 0.07 | 0 | 0 | 0.1 | 0.1 | 0.09 | 0.1 | 0.08 | 0.08 |
| R2 between | | 0.03 | 0.76 | 0.03 | 0.01 | 0.01 | 0.06 | 0.06 | 0.03 | 0.03 | 0.03 | 0.03 |
| R2 within | | 0.3 | 0.26 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.31 |
| YEAR EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| INDUSTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| TARGET COUNTRY EFFECTS | | FIXED | RANDOM | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| ACQUIRING COUNTRY EFFECTS | | FIXED | RANDOM | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |

Table 10. Panel Regressions. Matching-Acquisition-Adjusted CAR for Acquiring Firms (I)

We calculate buy-and-hold abnormal returns on days $t=-1$ to $t=+1$ from a market model estimated using daily firm and market returns over the period $t=-260$ to $t=-100$ trading days relative to the announcement day of the acquisition. Returns are in US dollars. We compute CARs for both the initial sample and the matching sample, and calculate matching-acquisition adjusted CARs as $[CAR^{CB}-CAR^{DOM}]$, where CAR^{CB} corresponds to the cross-border merger and CAR^{DOM} corresponds to the matching domestic acquisition. GDP per capita is in constant 1995 US dollars, and is obtain from the World Bank Development Indicators. We construct two indices of merger intensity from the total sample of acquisitions of targets in the corresponding country, from the Securities Data Corporation M&A database. We compute, for every year, the number of (cross-border) mergers, and divide this number by the number of publicly listed firms in the country. Data on number of firms, market capitalization to GDP, and exchange rates is from the World Bank Development Indicators. Robust t-statistics are in parentheses.

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

| | Economic Significance | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|--|-----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| Shareholder Protection Difference, only positive | | -4.762 0.71 | 4.584 0.78 | | | | | | |
| Shareholder Protection Difference, only negative | | -5.22 0.78 | 4.061 0.7 | | | | | | |
| Shareholder Prot. Diff., only Positive, 100% Acquisitions | | | -0.161 0.43 | | | | | | |
| Shareholder Prot. Diff., only Negative, 100% Acquisitions | | | 0.05 0.19 | | | | | | |
| Creditor Protection Difference, only positive | | | | 2.995 0.59 | 2.77 0.55 | | | | |
| Creditor Protection Difference, only negative | | | | 2.701 0.53 | 2.681 0.53 | | | | |
| Creditor Prot. Diff., only Positive, 100% Acquisitions | | | | | 0.136 0.35 | | | | |
| Creditor Prot. Diff., only Negative, 100% Acquisitions | | | | | -0.479 1.32 | | | | |
| Accounting Standards Difference, only positive | | | | | | -0.008 0 | -0.167 0.09 | | |
| Accounting Standards Difference, only negative | | | | | | -0.282 0.14 | -0.045 0.02 | | |
| Accounting St. Diff., only Positive, 100% Acquisitions | | | | | | | -0.355 0.41 | | |
| Accounting St. Diff., only Negative, 100% Acquisitions | | | | | | | -0.537 0.75 | | |
| Corruption Index Difference, only positive | 0.250 | | | | | | | 6.605* 1.66 | 7.443* 1.74 |
| Corruption Index Difference, only negative | | | | | | | | -4.043 0.53 | 0.523 0.06 |
| Corruption Diff., only Positive, 100% Acquisitions | | | | | | | | | -4.736 0.63 |
| Corruption Diff., only Negative, 100% Acquisitions | | | | | | | | | -7.359 1.01 |
| Log (GDP per Capita): Target Country | | -71.064 0.73 | -77.092 0.78 | -59.561 0.61 | -57.106 0.59 | -61.127 0.63 | -69.119 0.7 | -103.589 1.02 | -106.225 1.04 |
| Log (GDP per Capita): Acquiror Country | | 94.884 0.7 | 94.995 0.69 | 112.572 0.82 | 107.155 0.77 | 104.91 0.76 | 98.955 0.72 | 135.578 0.95 | 143.325 0.99 |
| # Acquisitions / # Listed Firms in Target Country | | -0.62 0.01 | -2.573 0.02 | -2.886 0.02 | -19.684 0.16 | 3.592 0.03 | -10.974 0.09 | 6.814 0.06 | 0.785 0.01 |
| # Cross-Border Acquisitions / # Listed Firms in Target Country | | -140.84 0.57 | -142.529 0.57 | -156.871 0.63 | -124.159 0.49 | -154.367 0.62 | -115.93 0.46 | -131.103 0.52 | -111.14 0.44 |
| Non-Horizontal Merger (Y/N) | -0.120 | -5.817* 1.67 | -5.733 1.63 | -6.136* 1.76 | -6.117* 1.74 | -6.093* 1.73 | -5.852 1.65 | -6.686* 1.86 | -6.530* 1.8 |
| Cash Payment (Y/N) | 0.281 | 14.566*** 3.72 | 14.908*** 3.69 | 14.589*** 3.69 | 15.192*** 3.81 | 14.399*** 3.65 | 14.614*** 3.67 | 14.947*** 3.71 | 14.917*** 3.7 |
| Hostile Acquisition (Y/N) | | 6.214 0.52 | 5.883 0.49 | 3.923 0.33 | 5.65 0.47 | 4.338 0.36 | 3.86 0.32 | 3.86 0.32 | 4.829 0.4 |
| Change in Exchange Rate (Local Currency - Target, per \$) | | 8.79 0.39 | 8.642 0.38 | 11.984 0.53 | 11.579 0.51 | 11.08 0.49 | 11.591 0.51 | 9.309 0.41 | 9.605 0.42 |
| Change in Exchange Rate (Local Currency - Acquiror, per \$) | | -17.184 0.49 | -18.582 0.52 | -11.961 0.34 | -3.31 0.09 | -11.522 0.33 | -5.663 0.16 | 0.284 0.01 | 5.043 0.14 |
| Percentage of Shares Sought by Acquiror | | -0.028 0.51 | -0.01 0.15 | -0.011 0.19 | -0.06 0.85 | -0.015 0.28 | -0.039 0.53 | -0.004 0.08 | -0.034 0.49 |
| Observations | | 258 | 258 | 257 | 257 | 258 | 258 | 253 | 253 |
| Number of Countries (Acquiror) | | 18 | 18 | 18 | 18 | 18 | 18 | 17 | 17 |
| R2 overall | | 0 | 0.06 | 0.11 | 0.11 | 0.1 | 0.1 | 0.08 | 0.08 |
| R2 between | | 0.01 | 0.02 | 0.06 | 0.06 | 0.03 | 0.03 | 0.03 | 0.03 |
| R2 within | | 0.3 | 0.31 | 0.3 | 0.3 | 0.3 | 0.3 | 0.31 | 0.32 |
| YEAR EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| INDUSTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| TARGET COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| ACQUIRING COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |

Table 11. Panel Regressions. Matching-Acquisition-Adjusted CAR for Acquiring Firms (II)

We calculate buy-and-hold abnormal returns on days $t=-1$ to $t=+1$ from a market model estimated using daily firm and market returns over the period $t=-260$ to $t=-100$ trading days relative to the announcement day of the acquisition. Returns are in US dollars. We compute CARs for both the initial sample and the matching sample, and calculate matching-acquisition adjusted CARs as $[CAR^{CB}-CAR^{DOM}]$, where CAR^{CB} corresponds to the cross-border merger and CAR^{DOM} corresponds to the matching domestic acquisition. GDP per capita is in constant 1995 US dollars, and is obtained from the World Bank Development Indicators. We construct two indices of merger intensity from the total sample of acquisitions of targets in the corresponding country, from the Securities Data Corporation M&A database. We compute, for every year, the number of (cross-border) mergers, and divide this number by the number of publicly listed firms in the country. Data on number of firms, market capitalization to GDP, and exchange rates is from the World Bank Development Indicators. Robust t-statistics are in parentheses.

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

| | Dependent Variable | | |
|--|----------------------------|------------------------------|---|
| | Cash Payment (Y/N) | Non-Horizontal Merger (Y/N) | Percentage of Shares Sought by Acquiror |
| Shareholder Protection Difference: Acquiror minus Target | 0.278*** [4.79,12.615] | 0.157 [0.37,6.682] | 5.708 [1.46,2.815] |
| Creditor Protection Difference: Acquiror minus Target | -0.511 [1.49,-20.027] | -0.519 [0.3,-19.176] | -15.559 [1.49,-6.663] |
| Accounting Standards Difference: Acquiror minus Target | 0.397** [2.31,9.147] | 0.267 [0.3,5.787] | 10.117 [1.54,2.541] |
| Corruption Index Difference, Acquiror minus Target | -0.285 [1.43,-0.704] | -0.390* [1.89,-0.914] | -3.311 [1.1,-0.09] |
| Hostile Acquisition (Y/N) | 7.143 [0.01,1.887] | 6.105 [0.01,1.53] | 37.631** [2.11,0.11] |
| Log (GDP per Capita): Target Country | 2.569 [0.55,5.251] | 0.732 [0.16,1.419] | 121.049 [1.51,2.726] |
| Log (GDP per Capita): Acquiror Country | 2.074 [0.35,1.811] | -16.127*** [2.69,-13.359] | 238.039*** [2.67,2.29] |
| # Acquisitions / # Listed Firms in Target Country | -8.749 [1.52,-0.906] | -15.739*** [2.6,-1.546] | -25.401 [0.21,-0.029] |
| # Cross-Border Acquisitions / # Listed Firms in Target Country | 10.676 [0.93,0.516] | 34.736*** [2.98,1.592] | 105.942 [0.44,0.056] |
| Change in Exchange Rate (Local Currency - Acquiror, per \$) | -2.694 [1.45,-0.396] | -1.237 [0.7,-0.172] | 0.101 [0,0] |
| Change in Exchange Rate (Local Currency - Target, per \$) | -0.016 [0.01,-0.004] | -0.03 [0.03,-0.007] | 43.757** [2.31,0.123] |
| Cash Payment (Y/N) | | 0.113 [0.58,0.107] | -19.345*** [4.9,-0.213] |
| Non-Horizontal Merger (Y/N) | 0.129 [0.68,0.136] | | 10.690*** [2.69,0.124] |
| Percentage of Shares Sought by Acquiror | -0.015*** [5.27,-1.385] | 0.008*** [2.78,0.726] | |
| YEAR EFFECTS | FIXED | FIXED | FIXED |
| INDUSTRY EFFECTS | FIXED | FIXED | FIXED |
| TARGET COUNTRY EFFECTS | FIXED | FIXED | FIXED |
| ACQUIRING COUNTRY EFFECTS | FIXED | FIXED | FIXED |
| Observations | 431 | 431 | 431 |
| R squared | 0.36 | 0.33 | 0.61 |

Table 12. Investor Protection and Merger Characteristics

The table shows fixed-effect regressions of merger characteristics on indices of investor protection. The first and second models are probit regressions. GDP per capita is in constant 1995 US dollars, and is obtained from the World Bank Development Indicators. We construct two indices of merger intensity from the total sample of acquisitions of targets in the corresponding country, from the Securities Data Corporation M&A database. We compute, for every year, the number of (cross-border) mergers, and divide this number by the number of publicly listed firms in the country. Data on number of firms, market capitalization to GDP, and exchange rates is from the World Bank Development Indicators. In brackets, the first number is the robust t-statistics; the second number is the marginal effect (in the probit regressions, first and second columns), or the economic significance (third column).

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

| | Economic Significance | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|--|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|
| Shareholder Protection Difference: Acquiror minus Target | | 0.631 1.61 | 0.071 0.16 | | | | | | |
| Shareholder Protection Difference, 100% Acquisitions | 0.189 | | 1.162* 1.97 | | | | | | |
| Creditor Protection Difference: Acquiror minus Target | | | | -0.013 0.03 | 0.008 0.01 | | | | |
| Creditor Protection Difference, 100% Acquisitions | | | | | 0.013 0.02 | | | | |
| Accounting Standards Difference: Acquiror minus Target | | | | | | 0.165 0.21 | -0.606 0.62 | | |
| Accounting Standards Difference, 100% Acquisitions | | | | | | | 1.913 1.33 | | |
| Corruption Index Difference, Acquiror minus Target | | | | | | | | 2.195 0.64 | -3.41 0.83 |
| Corruption Difference, 100% Acquisitions | 0.222 | | | | | | | | 11.789** 2.06 |
| Log (GDP per Capita): Target Country | | 3.818 0.46 | 2.957 0.38 | 2.134 0.24 | 2.321 0.26 | 3.607 0.39 | 1.632 0.17 | -0.756 0.18 | -3.633 0.85 |
| Log (GDP per Capita): Acquiror Country | | 15.598 0.76 | 13.114 0.67 | 11.473 0.57 | 11.784 0.58 | 12.993 0.59 | 7.351 0.34 | 5.074 0.62 | 3.696 0.48 |
| # Acquisitions / # Listed Firms in Target Country | | -370.396 0.92 | -305.233 0.8 | -620.933 1.56 | -627.962 1.55 | -550.107 1.24 | -499.02 1.17 | -16.929 0.09 | 14.156 0.08 |
| # Cross-Border Acquisitions / # Listed Firms in Target Country | | 484.994 0.77 | 270.334 0.45 | 801.358 1.25 | 806.81 1.25 | 760.163 1.1 | 661.949 0.99 | 74.247 0.26 | -2.695 0.01 |
| Non-Horizontal Merger (Y/N) | | -8.078 0.51 | -9.038 0.6 | -12.224 0.8 | -12.028 0.77 | -9.941 0.59 | -7.489 0.46 | 4.521 0.65 | 6.171 0.94 |
| Hostile Acquisition (Y/N) | | 23.549 0.14 | 64.207 0.42 | -8.903 0.05 | -29.38 0.16 | -61.247 0.36 | -50.783 0.3 | -40.296 0.57 | -39.56 0.59 |
| Percentage of Shares Sought by Acquiror | | 0.664 1.32 | 0.539 1.13 | 0.842 1.61 | 0.861 1.62 | 0.786 1.39 | 0.599 1.13 | 0.37 1.62 | 0.262 1.33 |
| Change in Exchange Rate (Local Currency - Acquiror, per \$) | | 87.277 0.71 | 85.072 0.74 | -5.966 0.06 | -6.146 0.06 | -4.995 0.04 | -6.689 0.06 | -3.377 0.08 | -10.453 0.25 |
| Change in Exchange Rate (Local Currency - Target, per \$) | | -91.05 1.31 | -77.676 1.18 | -64.68 0.98 | -64.077 0.95 | -62.53 0.9 | -57.168 0.84 | -18.431 0.68 | -13.491 0.52 |
| Cash Payment (Y/N) | 0.235 | 85.601* 1.65 | 70.632 1.46 | 65.849 1.12 | 63.498 1.07 | 75.06 1.39 | 67.092 1.23 | 19.172 0.91 | 15.833 0.79 |
| Observations | | 241 | 241 | 240 | 240 | 241 | 241 | 235 | 235 |
| Number of Countries (Target) | | 31 | 31 | 30 | 30 | 31 | 31 | 31 | 31 |
| Lambda (p-value) | | -13.93 (0.1315) | -13.93 (0.1314) | -13.93 (0.1315) | -14.58 (0.1197) | -13.93 (0.1315) | -15.86 (0.1016) | -16.49* (0.0857) | -11.91 (0.2155) |
| YEAR EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| INDUSTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| TARGET COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| ACQUIRING COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |

Table 13. Treatment Regressions. Matching-Acquisition-Adjusted CAR for Target Firms (I)

The table is the analogous to Table 7, where the variable “Cash Payment (Y/N)” is considered as an endogenous treatment effect, which depends on the investor protection indices and merger characteristics, as in Table 11. We calculate buy-and-hold abnormal returns on days $t=-1$ to $t=+1$ from a market model estimated using daily firm and market returns over the period $t=-260$ to $t=-100$ trading days relative to the announcement day of the acquisition. Returns are in US dollars. We compute CARs for both the initial sample and the matching sample, and calculate matching-acquisition adjusted CARs as $[CAR^{CB}-CAR^{DOM}]$, where CAR^{CB} corresponds to the cross-border merger and CAR^{DOM} corresponds to the matching domestic acquisition. GDP per capita is in constant 1995 US dollars, and is obtain from the World Bank Development Indicators. We construct two indices of merger intensity from the total sample of acquisitions of targets in the corresponding country, from the Securities Data Corporation M&A database. We compute, for every year, the number of (cross-border) mergers, and divide this number by the number of publicly listed firms in the country. Data on number of firms, market capitalization to GDP, and exchange rates is from the World Bank Development Indicators. Robust t-statistics are in parentheses.

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

| | Economic Significance | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|--|-----------------------|----------|----------|------------|----------|----------|----------|----------|----------|
| Shareholder Protection Difference, only positive | 0.130 | 1.214* | 0.375 | | | | | | |
| | | 1.87 | 0.47 | | | | | | |
| Shareholder Protection Difference, only negative | | 0.104 | -0.072 | | | | | | |
| | | 0.16 | 0.06 | | | | | | |
| Shareholder Prot. Diff., only Positive, 100% Acquisitions | 0.325 | | 3.715* | | | | | | |
| | | | 1.84 | | | | | | |
| Shareholder Prot. Diff., only Negative, 100% Acquisitions | | | -0.141 | | | | | | |
| | | | 0.08 | | | | | | |
| Creditor Protection Difference, only positive | | | | -0.166 | -0.787 | | | | |
| | | | | 0.27 | 0.46 | | | | |
| Creditor Protection Difference, only negative | | | | 0.102 | 0.411 | | | | |
| | | | | 0.15 | 0.34 | | | | |
| Creditor Prot. Diff., only Positive, 100% Acquisitions | | | | | 0.827 | | | | |
| | | | | | 0.35 | | | | |
| Creditor Prot. Diff., only Negative, 100% Acquisitions | | | | | -0.897 | | | | |
| | | | | | 0.39 | | | | |
| Accounting Standards Difference, only positive | | | | | | -0.427 | -0.803 | | |
| | | | | | | 0.26 | 0.5 | | |
| Accounting Standards Difference, only negative | | | | | | 0.767 | -0.679 | | |
| | | | | | | 0.47 | 0.23 | | |
| Accounting St. Diff., only Positive, 100% Acquisitions | | | | | | | 1.56 | | |
| | | | | | | | 0.34 | | |
| Accounting St. Diff., only Negative, 100% Acquisitions | | | | | | | 2.24 | | |
| | | | | | | | 0.41 | | |
| Corruption Index Difference, only positive | | | | | | | | 4.021 | -2.848 |
| | | | | | | | | 0.93 | 0.49 |
| Corruption Index Difference, only negative | | | | | | | | -1.467 | -8.169 |
| | | | | | | | | 0.23 | 0.65 |
| Corruption Diff., only Positive, 100% Acquisitions | 0.197 | | | | | | | | 22.175* |
| | | | | | | | | | 1.67 |
| Corruption Diff., only Negative, A114 100% Acquisitions | | | | | | | | | 5.915 |
| | | | | | | | | | 0.32 |
| Log (GDP per Capita): Target Country | | 3.915 | -0.118 | 0.123 | 3.651 | 2.217 | 0.032 | -0.137 | -3.722 |
| | | 0.45 | 0.01 | 0.01 | 0.41 | 0.23 | 0 | 0.03 | 0.82 |
| Log (GDP per Capita): Acquiror Country | | 14.257 | 7.365 | 13.588 | 5.277 | 11.855 | 10.168 | 5.077 | 2.484 |
| | | 0.66 | 0.34 | 0.7 | 0.26 | 0.55 | 0.47 | 0.6 | 0.31 |
| # Acquisitions / # Listed Firms in Target Country | -0.283 | -348.889 | -51.309 | -745.469** | -330.75 | -613.428 | -657.372 | -16.694 | 67.79 |
| | | 0.83 | 0.11 | 2 | 0.83 | 1.34 | 1.5 | 0.09 | 0.46 |
| # Cross-Border Acquisitions / # Listed Firms in Target Country | | 528.537 | -3.508 | 950.558 | 448.398 | 859.929 | 895.18 | 74.747 | -72.23 |
| | | 0.83 | 0 | 1.57 | 0.69 | 1.22 | 1.41 | 0.26 | 0.3 |
| Non-Horizontal Merger (Y/N) | | -7.347 | -4.477 | -16.296 | -5.447 | -11.241 | -11.535 | 4.817 | 9.038 |
| | | 0.44 | 0.27 | 1.14 | 0.36 | 0.67 | 0.76 | 0.67 | 1.41 |
| Hostile Acquisition (Y/N) | | -32.785 | -69.603 | 72.148 | -17.153 | -31.904 | -22.483 | -49.683 | -67.969 |
| | | 0.18 | 0.39 | 0.45 | 0.09 | 0.18 | 0.13 | 0.68 | 1.12 |
| Change in Exchange Rate (Local Currency - Target, per \$) | | -104.109 | -84.613 | -74.151 | -52.258 | -66.401 | -67.761 | -18.138 | -7.459 |
| | | 1.45 | 1.17 | 1.18 | 0.75 | 0.96 | 0.99 | 0.65 | 0.28 |
| Change in Exchange Rate (Local Currency - Acquiror, per \$) | | 67.74 | 24.237 | 1.37 | 1.653 | 6.882 | 1.032 | -2.348 | -13.727 |
| | | 0.52 | 0.18 | 0.01 | 0.01 | 0.06 | 0.01 | 0.05 | 0.32 |
| Percentage of Shares Sought by Acquiror | 0.440 | 0.744 | 0.307 | 0.993** | 0.299 | 0.828 | 0.838 | 0.382 | 0.142 |
| | | 1.52 | 0.46 | 2.02 | 0.43 | 1.52 | 1.12 | 1.64 | 0.56 |
| Cash Payment (Y/N) | 0.295 | 93.349* | 73.272 | 61.191 | 85.978 | 78.609 | 75.666 | 22.095 | 21.453 |
| | | 1.76 | 1.44 | 1.09 | 1.41 | 1.51 | 1.45 | 1.01 | 1.01 |
| Observations | | 241 | 241 | 240 | 240 | 241 | 241 | 235 | 235 |
| Number of Countries (Target) | | 31 | 31 | 30 | 30 | 31 | 31 | 31 | 31 |
| Lambda | | -14.63 | -18.85* | -14.29 | -11.71 | -14.21 | -15.04 | -16.67* | -19.69* |
| (p-value) | | (0.1153) | (0.0866) | (0.1227) | (0.2851) | (0.1247) | (0.1664) | (0.0824) | (0.0700) |
| YEAR EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| INDUSTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| TARGET COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| ACQUIRING COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |

Table 14. Treatment Regressions. Matching-Acquisition-Adjusted CAR for Target Firms (II)

The table is the analogous to Table 8, where the variable “Cash Payment (Y/N)” is considered as an endogenous treatment effect, which depends on the investor protection indices and merger characteristics, as in Table 11. We calculate buy-and-hold abnormal returns on days $t=-1$ to $t=+1$ from a market model estimated using daily firm and market returns over the period $t=-260$ to $t=-100$ trading days relative to the announcement day of the acquisition. Returns are in US dollars. We compute CARs for both the initial sample and the matching sample, and calculate matching-acquisition adjusted CARs as $[CAR^{CB}-CAR^{DOM}]$, where CAR^{CB} corresponds to the cross-border merger and CAR^{DOM} corresponds to the matching domestic acquisition. GDP per capita is in constant 1995 US dollars, and is obtain from the World Bank Development Indicators. We construct two indices of merger intensity from the total sample of acquisitions of targets in the corresponding country, from the Securities Data Corporation M&A database. We compute, for every year, the number of (cross-border) mergers, and divide this number by the number of publicly listed firms in the country. Data on number of firms, market capitalization to GDP, and exchange rates is from the World Bank Development Indicators. Robust t-statistics are in parentheses.

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

| | Economic Significance | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|--|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Shareholder Protection Difference: Acquiror minus Target | | 0.036 0.35 | 0.044 0.37 | | | | | | |
| Shareholder Protection Difference, 100% Acquisitions | | | -0.02 0.12 | | | | | | |
| Creditor Protection Difference: Acquiror minus Target | | | | 0.043 0.43 | -0.044 0.32 | | | | |
| Creditor Protection Difference, 100% Acquisitions | | | | | 0.192 0.96 | | | | |
| Accounting Standards Difference: Acquiror minus Target | | | | | | -0.064 0.33 | -0.086 0.35 | | |
| Accounting Standards Difference, 100% Acquisitions | | | | | | | 0.062 0.16 | | |
| Corruption Index Difference, Acquiror minus Target | 0.110 | | | | | | | 0.243 0.12 | 4.475* 1.82 |
| Corruption Difference, 100% Acquisitions | -0.241 | | | | | | | | -10.560*** 2.88 |
| Log (GDP per Capita): Target Country | 0.245 | 6.026*** 2.93 | 6.037*** 2.91 | 6.621*** 3.04 | 6.329*** 2.8 | 5.758*** 2.71 | 5.590** 2.55 | 6.570** 2.55 | 9.048*** 3.42 |
| Log (GDP per Capita): Acquiror Country | | 5.758 1.06 | 5.798 1.07 | 5.271 0.99 | 5.407 0.99 | 4.89 0.87 | 5.25 0.94 | 4.983 0.92 | 4.362 0.84 |
| # Acquisitions / # Listed Firms in Target Country | | 110.813 1.39 | 108.17 1.35 | 148.787 1.63 | 173.894* 1.79 | 92.789 1.16 | 71.724 0.89 | 110.462 1.37 | 117.099 1.51 |
| # Cross-Border Acquisitions / # Listed Firms in Target Country | -0.293 | -352.588** 2.56 | -347.709** 2.53 | -377.778** 2.56 | 400.196*** 2.61 | -324.324** 2.38 | -298.131** 2.18 | -367.372** 2.52 | -347.245** 2.5 |
| Non-Horizontal Merger (Y/N) | | -2.87 0.8 | -2.913 0.8 | -1.516 0.4 | -0.646 0.16 | -3.015 0.84 | -3.526 0.99 | -3.089 0.83 | -3.601 1.01 |
| Hostile Acquisition (Y/N) | | 20.643 1.01 | 21.019 1.02 | -25.318 0.63 | -39.048 0.91 | 17.296 0.87 | 19.832 0.96 | 26.987 1.3 | 25.113 1.26 |
| Percentage of Shares Sought by Acquiror | -0.290 | -0.158* 1.77 | -0.154* 1.72 | -0.210** 2.19 | -0.240** 2.32 | -0.150* 1.75 | -0.122 1.49 | -0.198** 2.21 | -0.168** 2.02 |
| Change in Exchange Rate (Local Currency - Acquiror, per \$) | -0.135 | -48.169 1.51 | -47.821 1.49 | -51.766* 1.83 | -48.938* 1.67 | -55.554* 1.95 | -53.867* 1.88 | -53.710* 1.87 | -49.321* 1.79 |
| Change in Exchange Rate (Local Currency - Target, per \$) | 0.144 | 27.644* 1.86 | 27.510* 1.84 | 30.271** 2.07 | 33.412** 2.17 | 28.316** 1.98 | 27.243* 1.9 | 29.343** 2.01 | 24.802* 1.76 |
| Cash Payment (Y/N) | | -2.214 0.3 | -2.232 0.3 | 1.636 0.22 | 0.52 0.07 | -0.957 0.13 | -1.926 0.26 | -3.837 0.49 | 0.95 0.12 |
| Observations | | 258 | 258 | 257 | 257 | 258 | 258 | 253 | 253 |
| Number of Countries (Acquiror) | | 18 | 18 | 18 | 18 | 18 | 18 | 17 | 17 |
| Lambda | | 3.08 | 3.04 | 3.08 | 2.58 | 3.08 | 1.49 | 4.69 | 1.86 |
| (p-value) | | (0.5960) | (0.6002) | (0.5960) | (0.6586) | (0.5960) | (0.8051) | (0.4256) | (0.7584) |
| YEAR EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| INDUSTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| TARGET COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| ACQUIRING COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |

Table 15. Treatment Regressions. Matching-Acquisition-Adjusted CAR for Acquiring Firms (I)

The table is the analogous to Table 9, where the variable “Cash Payment (Y/N)” is considered as an endogenous treatment effect, which depends on the investor protection indices and merger characteristics, as in Table 11. We calculate buy-and-hold abnormal returns on days $t=-1$ to $t=+1$ from a market model estimated using daily firm and market returns over the period $t=-260$ to $t=-100$ trading days relative to the announcement day of the acquisition. Returns are in US dollars. We compute CARs for both the initial sample and the matching sample, and calculate matching-acquisition adjusted CARs as $[CAR^{CB}-CAR^{DOM}]$, where CAR^{CB} corresponds to the cross-border merger and CAR^{DOM} corresponds to the matching domestic acquisition. GDP per capita is in constant 1995 US dollars, and is obtained from the World Bank Development Indicators. We construct two indices of merger intensity from the total sample of acquisitions of targets in the corresponding country, from the Securities Data Corporation M&A database. We compute, for every year, the number of (cross-border) mergers, and divide this number by the number of publicly listed firms in the country. Data on number of firms, market capitalization to GDP, and exchange rates is from the World Bank Development Indicators. Robust t-statistics are in parentheses.

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

| | Economic Significance | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|--|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Shareholder Protection Difference, only positive | | 0.255 1.5 | 0.243 1.43 | | | | | | |
| Shareholder Protection Difference, only negative | | -0.217 1.31 | -0.278 1.2 | | | | | | |
| Shareholder Prot. Diff., only Positive, 100% Acquisitions | | | 0.128 0.34 | | | | | | |
| Shareholder Prot. Diff., only Negative, 100% Acquisitions | | | 0.112 0.38 | | | | | | |
| Creditor Protection Difference, only positive | 0.040 | | | 0.268* 1.66 | -0.231 0.72 | | | | |
| Creditor Protection Difference, only negative | | | | -0.204 1.18 | 0.121 0.5 | | | | |
| Creditor Prot. Diff., only Positive, 100% Acquisitions | 0.250 | | | | 0.830* 1.89 | | | | |
| Creditor Prot. Diff., only Negative, 100% Acquisitions | -0.174 | | | | -0.714* 1.69 | | | | |
| Accounting Standards Difference, only positive | | | | | | 0.173 0.5 | -0.027 0.07 | | |
| Accounting Standards Difference, only negative | | | | | | -0.374 0.94 | -0.011 0.02 | | |
| Accounting St. Diff., only Positive, 100% Acquisitions | | | | | | | 1.158 1.49 | | |
| Accounting St. Diff., only Negative, 100% Acquisitions | | | | | | | -0.923 1.03 | | |
| Corruption Index Difference, only positive | 0.166 | | | | | | | 2.804 1.08 | 6.441** 2.11 |
| Corruption Index Difference, only negative | | | | | | | | -5.098 1.3 | -1.301 0.22 |
| Corruption Diff., only Positive, 100% Acquisitions | -0.201 | | | | | | | | -14.599** 2.12 |
| Corruption Diff., only Negative, 100% Acquisitions | | | | | | | | | -3.232 0.39 |
| Log (GDP per Capita): Target Country | 0.253 | 6.315*** 3.03 | 6.095*** 2.9 | 6.568*** 3.04 | 5.562** 2.5 | 6.104*** 2.79 | 5.428** 2.43 | 7.512*** 2.87 | 9.763*** 3.57 |
| Log (GDP per Capita): Acquiror Country | | 3.637 0.65 | 4.166 0.76 | 5.514 1.04 | 6.862 1.3 | 5.873 1.04 | 5.118 0.9 | 4.143 0.77 | 4.531 0.87 |
| # Acquisitions / # Listed Firms in Target Country | | 112.021 1.39 | 96.058 1.2 | 153.235* 1.71 | 168.702* 1.93 | 95.72 1.18 | 113.308 1.46 | 104.663 1.31 | 95.192 1.32 |
| # Cross-Border Acquisitions / # Listed Firms in Target Country | -0.297 | -347.842** 2.51 | -329.508** 2.37 | 384.440*** 2.64 | 399.688*** 2.81 | -336.157** 2.39 | 345.405*** 2.63 | -372.640** 2.58 | -334.816** 2.57 |
| Non-Horizontal Merger (Y/N) | | -2.512 0.69 | -3.214 0.91 | -1.634 0.43 | -1.617 0.43 | -3.155 0.88 | -3.202 0.92 | -3.159 0.85 | -4.423 1.24 |
| Hostile Acquisition (Y/N) | | 16.14 0.79 | 18.852 0.91 | -20.53 0.51 | -31.743 0.79 | 14.574 0.72 | 19.936 0.97 | 24.694 1.2 | 25.283 1.28 |
| Change in Exchange Rate (Local Currency - Target, per \$) | 0.143 | 26.747* 1.78 | 24.699* 1.67 | 31.843** 2.19 | 34.886** 2.32 | 28.134* 1.97 | 30.078** 2.09 | 27.821* 1.91 | 22.067 1.55 |
| Change in Exchange Rate (Local Currency - Acquiror, per \$) | -0.136 | -57.251* 1.75 | -56.374* 1.73 | -53.518* 1.9 | -34.393 1.16 | -59.273** 2.05 | -54.382* 1.86 | -50.379* 1.76 | -45.994* 1.65 |
| Percentage of Shares Sought by Acquiror | -0.305 | -0.151* 1.68 | -0.12 1.29 | -0.216** 2.31 | -0.313*** 2.67 | -0.142* 1.66 | -0.235** 2.26 | -0.193** 2.18 | -0.105 1.09 |
| Cash Payment (Y/N) | | -5.515 0.72 | -5.104 0.67 | 0.897 0.12 | -0.063 0.01 | -1.487 0.19 | -3.111 0.39 | -2.363 0.3 | 0.294 0.04 |
| Observations | | 258 | 258 | 257 | 257 | 258 | 258 | 253 | 253 |
| Number of Countries (Acquiror) | | 18 | 18 | 18 | 18 | 18 | 18 | 17 | 17 |
| Lambda | | 2.14 | 6.16 | 3.49 | 0.7 | -0.9 | 2.95 | 4.7 | 3.11 |
| (p-value) | | (0.7120) | (0.3645) | (0.5509) | (0.9225) | (0.8642) | (0.6686) | (0.4230) | (0.6411) |
| YEAR EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| INDUSTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| TARGET COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |
| ACQUIRING COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED | FIXED |

Table 16. Treatment Regressions. Matching-Acquisition-Adjusted CAR for Acquiring Firms (II)

The table is the analogous to Table 10, where the variable "Cash Payment (Y/N)" is considered as an endogenous treatment effect, which depends on the investor protection indices and merger characteristics, as in Table 11. We calculate buy-and-hold abnormal returns on days $t=-1$ to $t=+1$ from a market model estimated using daily firm and market returns over the period $t=-260$ to $t=-100$ trading days relative to the announcement day of the acquisition. Returns are in US dollars. We compute CARs for both the initial sample and the matching sample, and calculate matching-acquisition adjusted CARs as $[CAR^{CB}-CAR^{DOM}]$, where CAR^{CB} corresponds to the cross-border merger and CAR^{DOM} corresponds to the matching domestic acquisition. GDP per capita is in constant 1995 US dollars, and is obtained from the World Bank Development Indicators. We construct two indices of merger intensity from the total sample of acquisitions of targets in the corresponding country, from the Securities Data Corporation M&A database. We compute, for every year, the number of (cross-border) mergers, and divide this number by the number of publicly listed firms in the country. Data on number of firms, market capitalization to GDP, and exchange rates is from the World Bank Development Indicators. Robust t-statistics are in parentheses.

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

| | Dependent Variable: Target's Matching Acquisition Adjusted BHAR | | | | Dependent Variable: Acquiror's Matching Acquisition Adjusted BHAR | | | | | |
|--|--|------------------|----------------|------------------|--|--------------------------|----------------|------------------|-------------------|-------|
| | Economic Significance | (1) | (2) | (3) | (4) | Economic Significance | (1) | (2) | (3) | (4) |
| Shareholder Protection Difference, only positive | | -0.344 0.50 | | | | | 5.424 0.91 | | | |
| Shareholder Protection Difference, only negative | | -0.361 0.32 | | | | | 4.492 0.76 | | | |
| Shareholder Prot. Diff., only Positive, 100% Acquisitions | 0.347 | 4.088*** 3.90 | | | | | -0.168 0.41 | | | |
| Shareholder Prot. Diff., only Positive, > 50% Acquisitions | | 0.416 0.44 | | | | | -0.106 0.33 | | | |
| Shareholder Prot. Diff., only Negative, 100% Acquisitions | | 0.114 0.09 | | | | | -0.141 0.46 | | | |
| Shareholder Prot. Diff., only Negative, > 50% Acquisitions | | -1.103 0.77 | | | | | 0.551 1.32 | | | |
| Creditor Protection Difference, only positive | | | -1.151 0.93 | | | | | 2.277 0.45 | | |
| Creditor Protection Difference, only negative | | | 0.504 0.64 | | | | | 1.763 0.35 | | |
| Creditor Prot. Diff., only Positive, 100% Acquisitions | | | -2.152 1.34 | | | | | 0.818 1.65 | | |
| Creditor Prot. Diff., only Positive, > 50% Acquisitions | | | 0.956 0.57 | | | -0.427 | | -1.018** 2.16 | | |
| Creditor Prot. Diff., only Negative, 100% Acquisitions | | | -1.911 0.60 | | | | | -0.409 0.43 | | |
| Creditor Prot. Diff., only Negative, > 50% Acquisitions | | | 2.187 0.70 | | | | | 0.028 0.03 | | |
| Accounting Standards Difference, only positive | | | | -0.306 0.22 | | | | | 1.038 0.56 | |
| Accounting Standards Difference, only negative | | | | -2.775 1.18 | | | | | 0.403 0.20 | |
| Accounting St. Diff., only Positive, 100% Acquisitions | 0.304 | | | 6.567*** 2.64 | | | | | 1.541 1.58 | |
| Accounting St. Diff., only Positive, > 50% Acquisitions | | | | -1.538 0.87 | | -0.488 | | | -2.603*** 3.97 | |
| Accounting St. Diff., only Negative, 100% Acquisitions | | | | 2.887 0.88 | | | | | -0.2 0.22 | |
| Accounting St. Diff., only Negative, > 50% Acquisitions | | | | -2.35 0.67 | | | | | 0.371 0.37 | |
| Corruption Index Difference, only positive | | | | -4.454 0.98 | | 0.275 | | | 7.745* 1.76 | |
| Corruption Index Difference, only negative | | | | -1.774 0.21 | | | | | 1.43 0.16 | |
| Corruption Diff., only Positive, 100% Acquisitions | | | | 16.046 1.44 | | | | | -2.463 0.26 | |
| Corruption Diff., only Positive, > 50% Acquisitions | | | | 0.421 0.06 | | | | | -2.292 0.34 | |
| Corruption Diff., only Positive, 100% Acquisitions | | | | 24.636 1.02 | | | | | 0.694 0.04 | |
| Corruption Diff., only Positive, > 50% Acquisitions | | | | -24.51 | | | | | -8.45 | |
| COUNTRY-SPECIFIC CONTROLS | YES | YES | YES | YES | | | YES | YES | YES | YES |
| ACQUISITION-SPECIFIC CONTROLS | YES | YES | YES | YES | | | YES | YES | YES | YES |
| Observations | | 241 | 240 | 241 | 235 | | 258 | 257 | 258 | 253 |
| Number of Countries | | 31 | 30 | 31 | 31 | | 18 | 18 | 18 | 17 |
| R2 overall | | 0.39 | 0.32 | 0.33 | 0.31 | | 0.31 | 0.32 | 0.36 | 0.32 |
| R2 between | | 0.04 | 0.14 | 0.05 | 0.35 | | 0.02 | 0.05 | 0.05 | 0.03 |
| R2 within | | 0.36 | 0.31 | 0.31 | 0.33 | | 0.05 | 0.12 | 0.17 | 0.08 |
| YEAR EFFECTS | | FIXED | FIXED | FIXED | FIXED | | FIXED | FIXED | FIXED | FIXED |
| INDUSTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | | FIXED | FIXED | FIXED | FIXED |
| TARGET COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | | FIXED | FIXED | FIXED | FIXED |
| ACQUIRING COUNTRY EFFECTS | | FIXED | FIXED | FIXED | FIXED | | FIXED | FIXED | FIXED | FIXED |

Table 17. Robustness tests: Change in Nationality v. Change in Control

Regression of MABHCARs for both the target and the acquiring firm on corporate governance characteristics of the countries of the target and the acquiror. We compute buy-and-hold abnormal returns on days $t=-1$ to $t=+1$ from a market model estimated using daily firm and market returns over the period $t=-260$ to $t=-100$ trading days relative to the announcement day of the acquisition. Returns are in US dollars. We compute CARs for both the initial sample and the matching sample, and calculate matching-acquisition adjusted CARs as $[CAR^{CB}-CAR^{DOM}]$, where CAR^{CB} corresponds to the cross-border merger and CAR^{DOM} corresponds to the matching domestic acquisition. GDP per capita is in constant 1995 US dollars, and is obtain from the World Bank Development Indicators. We construct two indices of merger intensity from the total sample of acquisitions of targets in the corresponding country, from the Securities Data Corporation M&A database. We compute, for every year, the number of (cross-border) mergers, and divide this number by the number of publicly listed firms in the country. Data on number of firms, market capitalization to GDP, and exchange rates is from the World Bank Development Indicators. Robust t-statistics are in parentheses.

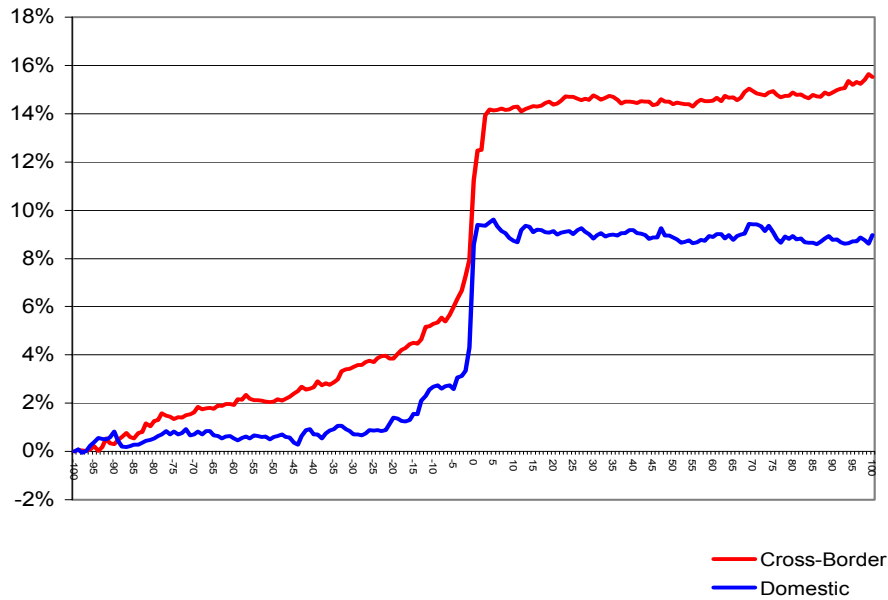
* significant at 10%; ** significant at 5%; *** significant at 1%

| | Shareholder Protection Difference: Acquiror minus Target | Creditor Protection Difference: Acquiror minus Target | Accounting Standards Difference: Acquiror minus Target | Corruption Index Difference, Acquiror minus Target | Country Market Capitalization Difference, Acquiror minus Target | GDP per Capita Difference, Acquiror minus Target |
|--|--|---|--|--|---|--|
| Creditor Protection Difference: Acquiror minus | 0.1210* (0.0051) | 1 | | | | |
| Accounting Standards Difference: Acquiror minus | 0.6431* (0.0000) | 0.1830* (0.0000) | 1 | | | |
| Corruption Index Difference, Acquiror minus | 0.1177* (0.0084) | 0.05 (0.2649) | 0.2847* (0.0000) | 1 | | |
| Country Market Capitalization Difference, | 0.4883* (0.0000) | 0.1061* (0.0222) | 0.4230* (0.0000) | 0.1458* (0.0019) | 1 | |
| GDP per Capita Difference, Acquiror minus Target | 0.2275* (0.0000) | 0.044 (0.3440) | 0.1985* (0.0000) | 0.5652* (0.0000) | 0.2916* (0.0000) | 1 |

Appendix Table A. Correlation among Investor protection indices

The table shows the Pearson correlation matrix of investor protection indices, and GDP per capita difference. P-values are in parentheses.

Target Firms



Acquiring Firms

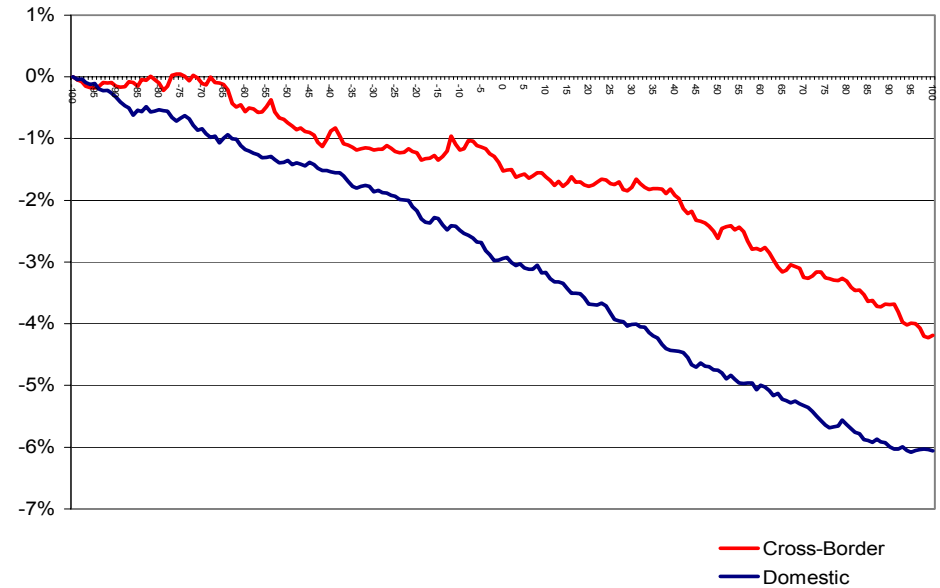


Figure 1. Announcement CARs for target and acquiring firms

The table shows CARs for target (left graph) and acquiring (right graph) firms, depending on whether the acquisition is cross-border or domestic. We calculate buy-and-hold abnormal returns on days $t=-1$ to $t=+1$ from a market model estimated using daily firm and market returns over the period $t=-260$ to $t=-100$ trading days relative to the announcement day of the acquisition. Returns are in dollars. We compute CARs for both the original sample (cross-border mergers) and the matching sample (domestic mergers). Market data is from Datastream.