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Cross-Country Determinants of Mergers and Acquisitions

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Abstract

We study the determinants of mergers and acquisitions around the world by focusing on differences in laws and regulation across countries. We find that the volume of M&A activity is significantly larger in countries with better accounting standards and stronger shareholder protection. The probability of an all-cash bid decreases with the level of shareholder protection in the acquirer country. In cross-border deals targets are typically from countries with poorer investor protection than acquirers, suggesting that cross-border transactions play a governance role by improving the degree of investor protection within target firms.

Keywords: Mergers and acquisitions, corporate governance, investor protection

JEL Classifications: G21, G28, G32

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1. Introduction

In a perfect world, corporate assets would be channeled towards their best possible use. Mergers and acquisitions (M&A) help attain this goal by reallocating control over companies. However, frictions such as transaction costs, asymmetries of information, and agency conflicts can prevent efficient transfers of control.

Recent studies on corporate governance use measures of the quality of the legal and regulatory environment within a country as proxies for some of these frictions, and have shown that differences in laws, regulation and enforcement correlate with the development of capital markets, the ownership structure of firms and the cost of capital, as shown by La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997), (1998), and Bhattacharya and Daouk, (2002).

In this paper we analyze a sample of mergers and acquisitions announced in the 1990s and completed by the end of 2002. Our sample comprises firms in 49 major countries and shows that differences in laws and enforcement explain the intensity and the pattern of mergers and acquisitions around the world.

We show that the volume of M&A activity is significantly larger in countries with better accounting standards and stronger shareholder protection. This result holds for several measures of M&A activity, and also when we control for other characteristics of the regulatory environment, such as antitrust legislation and takeover laws. Our finding indicates that a more active market for mergers and acquisitions is the outcome of a corporate governance regime with stronger investor protection.

We also show that hostile deals are relatively more likely in countries with better shareholder protection. A possible explanation is that good protection for minority shareholders makes control more contestable by reducing the private benefits of control.

Next, we analyze the determinants of the takeover premium and the method of payment in individual transactions. We show that the premium is higher in countries with higher shareholder protection, although the result is driven by deals with United States and British targets. This result is consistent with Grossman and Hart (1980), who argue that with diffuse ownership, the bidder must pay a higher premium to overcome the free-rider problem. We find that the probability of an all-cash bid decreases with the degree of shareholder protection in the acquirer country. This finding indicates that acquisitions paid with stocks require an environment with high shareholder protection.

We also provide evidence on cross-border mergers and acquisitions. We show that the probability that a given deal is cross-border rather than domestic decreases with the investor protection of the target's country. Moreover, even after we control for bilateral trade, relative GNP per capita, and cultural and geographical differences, we find that targets are typically from countries with poorer investor protection than the acquirers. This result suggests that cross-border M&A activity is an important channel for an effective worldwide convergence in corporate governance standards, as argued by Coffee (1999).

Selling to a foreign firm is a form of contractual convergence similar to the decision of listing in countries with better corporate governance and better-developed capital markets. Pagano, Roell, and Zechner (2002) and Reese and Weisbach (2002) show that firms from countries with weak legal protection for minority shareholders list abroad more frequently than do firms from other countries. We show that firms in countries with weaker investor protection are often sold to buyers from countries with stronger investor protection.

Our paper belongs to the growing literature exploring cross-country variation in governance structures around the world. Recent studies show that better legal protection of minority shareholders is associated with more developed stock markets (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1997), higher valuation (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 2002), greater dividend payouts (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 2000b), lower concentration of ownership and control (La Porta, Lopez-de-Silanes, and Shleifer, 1999), lower private benefits of control (Dyck and Zingales, 2003, and Nenova, 2003), lower earnings management (Leuz, Nanda, and Wysocki, 2003), lower cash balances (Dittmar, Mahrt-Smith, and Servaes, 2003), and higher correlation between investment opportunities and actual investments (Wurgler, 2000). Our paper shows that better investor protection is correlated with a more active market for mergers and acquisitions.

We structure the paper as follows. Section 2 describes the data. Section 3 contains the analyses of the determinants of the volume, the premium, the hostile takeovers, and the method of payment. Section 4 examines cross-border mergers and acquisitions. Section 5 concludes.

2. Data

Our sample contains all mergers and acquisitions announced between January 1, 1990 and December 31, 1999, completed as of December 31, 2002, and reported by SDC Platinum, a

database from Thompson Financial. Because we wish to study transactions clearly motivated by changes in control, we focus on mergers (business combinations in which the number of companies decreases after the transaction) and acquisitions of majority interests (all cases in which the acquirer owns less than 50% of the target-company's stock before the deal, and more than 50% after the deal). A second reason for this sample selection is that the coverage of transfers of minority stakes (below 50%) is likely to be severely affected by cross-country differences in disclosure requirements. By selecting only transfers of control stakes (above 50%), we minimize these disclosure biases. However, in interpreting the results, we note that it is important to be aware that the availability and quality of the data may be better in some countries (such as the U.S. and U.K.) because of broader SDC coverage.[1]

The availability of empirical measures of investor protection limits our set to 49 countries. The sample from SDC includes 45,686 deals, 22% of which have a traded company as the target. Excluded deals represent about 6% of the original data set in number and 1% in value.

The Appendix describes the variables we use in this paper and indicates their sources. These variables can be classified into three broad categories corresponding to three different levels of analysis.

The first set of variables is at country level. It includes measures of M&A activity from the target's perspective, broad macroeconomic conditions, and proxies of the legal and regulatory environment. We use these variables in our cross-country analysis of the determinants of international mergers and acquisitions.

The second set of variables is at individual-deal level. This set includes data on the premium paid, the value of the deal, and the means of payment. We use these data in the analysis of the determinants of the premium and the means of payment, together with country-level variables defined above.

In the third level of analysis we examine cross-border deals and use ordered pairs to distinguish between acquirer and target countries (there are 49×48, that is, 2,352 ordered pairs). Our variables measure the flow of M&A activity and trade, and cultural differences and similarities between any ordered pair of countries.

[1] A related concern is that the coverage of a country seems to improve over time. To address this concern, we

2.1 M&A activity

Table 1 shows the data on M&A activity sorted by target country. We define as volume the percentage of traded firms that are targets of successful mergers or acquisitions.[2] We interpret this variable as a measure of the ability of an economy to reallocate control over corporate assets. As is apparent from the table, the market for corporate control plays a different role in different countries. For example, in Japan, volume is very low (only 6.4% of Japanese traded companies are targets of a completed deal during the 1990s) and in the U.S., volume is very high (65.6% of U.S. traded companies are targets in a completed deal). The table also shows some similarities across countries. For example, volume in France, Italy, and the United Kingdom is similar, although their governance regime is quite different.

Of all mergers and acquisitions, we focus on hostile deals, since they are likely to play an important governance role. We define as hostile takeover the number of attempted hostile takeovers as a percentage of the total number of traded companies. The intuition is that the disciplinary role of hostile takeovers is related to the threat they represent to incumbent managers. In other words, it is likely that attempted (but failed) hostile takeovers play just as important a role in disciplining management as hostile takeovers that are eventually completed.

In all countries, the frequency of hostile takeovers is very small. According to SDC, they are absent in 21 out of 49 countries, and when present they never exceed the 6.44% observed in the United States. Therefore, according to SDC Platinum, hostile takeovers are rare. However, this conclusion may be unwarranted, because our source might fail to record all unsuccessful takeovers. Moreover, in some countries the corporate governance role of hostile takeovers could be performed by hostile stakes, as Jenkinson and Ljungqvist (2001) show for Germany.

We define as the cross-border ratio the percentage of completed deals in which the acquirer is from a different country than the target. In the case of mergers, the distinction between acquirers and targets is arbitrary. Therefore, we follow our data source, Thomson Financial Securities Data. For example, in the merger between Daimler and Chrysler, Thomson codifies Daimler as the acquirer and Chrysler as the target.

The number of cross-border mergers and acquisitions is 11,638, corresponding to 25% of the total. Table 1 shows that different countries play different roles in the cross-border M&A

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replicate our analysis on the sub-sample of deals announced in the second half of the 1990s and find similar results.

market. For instance, in Mexico, 51% of the acquirers are foreigners and in the United States only 9.1%.

To study the cross-country variations in the premiums and means of payment, we use transaction-level data. We compute the premium as the bid price as a percentage of the closing price four weeks before the announcement. We characterize the means of payment of an individual deal with a dummy variable (all-cash bid) that equals one if the acquisition is entirely paid in cash, and zero otherwise. We compute these variables using data available from SDC Platinum. After excluding deals with incomplete information, we have 4,007 observations from 35 countries.

As shown in Table 2, the data is highly concentrated: the target is a U.S. firm in 60% of the sample and a U.K. firm in 15% of the sample. The average premium ranges from 99.6 (in Japan) to 227.1 (in Indonesia). In Italy, the average of all-cash bid equals 0.88, that is, 88% of the acquisitions of Italian targets are paid entirely in cash. In the U.S. only 37% of the deals are paid wholly in cash.

2.2 Investor protection

By reshuffling control over companies, mergers and acquisitions help allocate corporate assets to their best possible use. Investor protection can affect the volume of mergers and acquisitions because it affects the magnitude of frictions and inefficiencies in the target country. As proxies for investor protection, we use several indexes developed by La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998): an index of the quality of the accounting standards, an index of the quality of law enforcement (rule of law), a measure of the rights that shareholders have with respect to management (antidirector rights), and a dummy variable for common law countries.

These indexes are highly correlated (their pair-wise correlation ranges between 40% and 60%) because they all reflect to some degree the underlying quality of the investor protection in one country. However, they measure different institutional characteristics.

Accounting standards measures the quality of the disclosure of accounting information. This index is created by the Center for International Financial Analysis and Research and rates

[2] We also use other measures of volume, such as the total number of completed deals divided by population, the value of all completed deals divided by GDP, and the value of completed deals among traded companies divided by stock market capitalization. The qualitative results do not change.

the 1990 annual reports of at least three firms in every country on their inclusion or omission of 90 items. Thus, each country obtains a score out of 90, with a higher number indicating more disclosure. This variable affects M&A activity, because good disclosure is a necessary condition for identifying potential targets. Accounting standards is also a measure of corporate governance, because it reduces the scope for expropriation by making corporate accounts more transparent.

Our second measure of investor protection is shareholder protection and ranges between zero and six. This variable measures the effective rights that minority shareholders hold against managers and directors, and is defined as antidirector rights multiplied by rule of law and divided by ten. When minority shareholders have fewer rights, they are more likely to be expropriated. As a consequence, with lower shareholder protection, the stock market is less developed and raising external equity, in particular to finance a takeover, is more expensive. At the same time, with low shareholder protection, the private benefits of control are high and the market for corporate control is relatively less effective, because incumbents will try to entrench themselves via ownership concentration and takeover deterrence measures (Bebchuk, 1999).

Common law is a dummy variable that equals one if the origin of the company law is the English Common Law, and zero otherwise. La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998) argue that legal origin is a broad indicator of investor protection and show that countries with common-law as the legal origin better protect minority shareholders than do countries with civil law as the legal origin. Although common law should not directly affect mergers and acquisitions, we choose this variable because it is correlated with other proxies of investor protection and is truly exogenous. Hence, we can use it as a good instrument for investor protection.

We note that the number of observations in our empirical analysis varies with the measure of investor protection used, because accounting standards is not available for Ecuador, Indonesia, Ireland, Jordan, Kenya, Pakistan, Sri Lanka, and Zimbabwe.

3. Determinants of M&A activity

To analyze the cross-country relation between M&A activity and investor protection, we examine four dimensions of mergers and acquisitions: the volume, the premium, the incidence of hostile takeovers, and the method of payment.

3.1 Volume

We start with the relation between the volume of M&A activity and investor protection at target-country level. Our specification is:

$$\text{Volume} = \alpha + \beta X + \gamma \text{ Investor protection} + \varepsilon, \quad (1)$$

where the dependent variable, volume, is the percentage of traded firms that are targets of successful mergers or acquisitions. The variables common law, accounting standards, and shareholder protection are proxies for investor protection. Control factors (X) in all specifications are GDP growth, which is our proxy for the change in economic conditions, and the logarithm of the 1995 per capita GNP, which is our proxy for the country's wealth.

Table 3 reports the coefficients of six Tobit models derived from specification (1). We estimate Tobit models because the dependent variable (volume) is bounded between zero and 100 by construction. Column 1 shows that the frequency of mergers among traded companies is 7.5% higher in common-law countries than in civil-law countries. The results in column 2 show that accounting standards is positively and significant correlated with volume. An increase of accounting standards by 12 points (from the quality of accounting standards in Italy to the one in Canada) correlates with a 5%-increase in the volume of mergers and acquisitions. Column 3 finds a similar result for shareholder protection. A one-point increase in shareholder protection (for instance, the adoption of voting by mail in a country like Belgium)[3] is associated with 4% more volume. Thus, we find that there are more mergers and acquisitions in countries with better investor protection.

In column 4, we estimate a joint regression with accounting standards and shareholder protection and find that only the accounting standards variable is statistically significant. This result suggests that disclosure rules are more relevant for takeovers than shareholder rights. However, an important variable that is missing is ownership structure. Therefore, in column 5, we add ownership concentration. For each country, ownership concentration is the average equity stake owned by the three largest shareholders in the ten largest nonfinancial domestic firms in 1994, from La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998). We find that, as in

[3] We note that a one-point increase in the index of antidirector rights (such as the adoption of voting by mail) translates into a one-point increase in shareholder protection only in a country like Belgium, which also scores ten

the individual regressions, the coefficients on accounting standard and shareholder protection are positive and significant. The coefficient on ownership concentration is positive and significant. This finding indicates that, when we control for investor protection, countries with more concentrated ownership have more mergers and acquisitions. This result is consistent with Shleifer and Vishny (1986), who argue that transfers of control are easier in companies with more concentrated ownership structure because they overcome the free-rider problem in takeovers.

The results in column 5 help explain why shareholder protection is not significant in column 4. On the one hand, shareholder protection reduces the costs of raising external equity, thereby increasing the volume of mergers. On the other hand, it decreases ownership concentration, which makes friendly transfers of control less likely. By controlling for ownership concentration, we are able to disentangle the two effects.

In column 6, we evaluate the robustness of the results on investor protection by adding further control variables to capture cross-country differences in the regulatory environment. We show the results only with common law as our proxy for investor protection, although we obtain similar results for accounting standards and shareholder protection. Mandatory bid rule, a dummy variable that equals one if acquirers are forced to make a tender offer to all shareholders when passing a given ownership threshold and zero otherwise, might reduce the volume of mergers and acquisitions because it imposes further costs to the potential bidder. Market return, the average annual stock market return during the 1990s, might affect M&A activity because of valuation waves (Shleifer and Vishny, 2003). However, there are two opposing effects when the stock market is booming. Targets could become too expensive, reducing the volume of deals, but acquirers can enjoy low takeover costs because they can pay with overvalued stocks, leading to a high takeover volume. Market dominance, a measure of product market concentration in 1995 from the Global Competitiveness Report, could reduce the volume because of smaller availability of targets.

The results in column 6 show that common law is still significant and its coefficient is virtually unchanged from column 1. None of the control variables are statistically significant.[4]

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in the index of rule of law. In a country like Italy, which scores 8.33 in the index of rule of law, the same change in minority shareholders' rights implies only 0.833-point increase in shareholder protection.

[4] Note that the number of observations decreases from 49 to 41 because market return is not available for Taiwan and Uruguay and market dominance is not available for Ecuador, Kenya, Nigeria, Pakistan, Sri Lanka, Uruguay, and Zimbabwe.

3.2 Premium

We use the sample of individual transactions to analyze the cross-country determinants of the takeover premium. We estimate the specification:

$$\text{Log (Premium)} = \alpha + \beta X + \gamma \text{ Shareholder protection} + \varepsilon \quad (2)$$

where premium is the bid price as a percentage of the target's closing price four weeks before the announcement of the deal, shareholder protection is measured at target-country level, and X is a set of control factors. Control variables at deal level are target size, the logarithm of the target's market capitalization four weeks before the announcement; cross-border, a dummy variable that equals one if the deal is cross-border, and zero otherwise; hostile bid, a dummy variable that equals one if the deal is hostile, and zero otherwise; tender offer, a dummy variable that equals one if the deal involves a tender offer, and zero otherwise; and contested bid, a dummy variable that equals one if the number of bidders is larger than one, and zero otherwise.

Table 4 shows the results of six regressions based on specification (2). In all regressions, the standard errors shown in parentheses are adjusted for heteroskedasticity, using Huber (1967) and White (1980) correction, and for clustering at country level following Huber (1967). We correct for clustering because observations within a same country are likely to be correlated. We also include year and industry (at one-digit SIC-code level) dummies, but we do not report their coefficients.

In column 1, we find that shareholder protection is positively correlated with the takeover premium. An increase in the level of shareholder protection by one point - say, the introduction of voting by mail in Belgium - is associated with a 0.04 increase in the logarithm of the premium, which translates into an average increase by 6% of premium for Belgian firms. Target size is negative and significant, that is, larger deals are associated with lower premiums.

In column 2, we add the deal-level variables cross-border, hostile bid, tender offer, and contested bid. The result on shareholder protection does not change and the new controls are all positive, as expected. All but hostile bid are statistically significant. We interpret the result on tender offer as evidence in favor of the free-rider hypothesis: namely, in a tender offer the bidder needs to pay a higher premium to induce shareholders to tender their shares. This theory would also predict that the premium paid should be higher the more diffuse the target's ownership structure. However, we cannot test this hypothesis directly because we do not have

data on ownership structure in individual target companies. Contested bids are associated with a 0.1 increase in the logarithm of the premium, which translates into an average increase by 15% of premium, consistent with the view that competition for targets is associated with higher premiums. Cross-border deals are associated with a 0.03 increase in the logarithm of the premium, which translates into an average increase by 3% of the premium.

Our finding that takeover premiums are higher in countries with higher shareholder protection can be interpreted by noting that the takeover premium measures the gain available to all target shareholders. There are two reasons why the premium might be higher in countries with stronger shareholder protection. First, shareholder protection reduces the cost of capital and therefore increases (potential) competition among bidders and the premium paid by the winning bidder. Second, diffuse ownership is more common in countries with higher shareholder protection. In turn, diffuse ownership exacerbates the free-rider problem in takeovers by forcing bidders to pay a higher takeover premium than otherwise.

A concern with this interpretation is the possibility that premium measures the private benefits of control. To explore this issue, in column 3, we add the difference between acquirer and target countries' shareholder protection as a further control variable. If premium measures the private benefits of control, we expect to find a negative and significant coefficient on this control variable, as in Dyck and Zingales (2003). The reason is that an acquirer coming from a country with lower shareholder protection is better able to extract private benefits of control than an acquirer coming from a country with stricter rules.

In column 3, we find that the difference between acquirer and target countries' shareholder protection is not statistically significant. This result indicates that premium is not a proxy for the private benefits of control but for the total premium available to all shareholders. This finding also indicates that acquirers from countries with better shareholder protection do not need to pay more than acquirers from countries with weaker shareholder protection in cross-border deals.

According to Rau and Vermaelen (1998), glamour firms (as measured by high M/B) will tend to overestimate their ability to create synergies in the target and should therefore be willing to pay more than managers of value firms (as measured by low M/B). Therefore, in column 4, we add the equity market-to-book ratio of the bidder four weeks before the announcement. We obtain this information from Datastream. As a result of the matching procedure the number of

observations in column 4 reduces to 1,005. Contrary to the prediction, our results show that bidder M/B is not correlated with premium.

Comment and Schwert (1995) show that in the U.S. takeover laws are an important determinant of the takeover premium. Therefore, in column 5 we control for differences in takeover laws across countries. The variable mandatory bid rule equals one if in 1995 there was a legal requirement to make a tender offer when shareholdings after the acquisition exceed a given ownership threshold, and zero otherwise. For instance, mandatory bid rule equals one in the United Kingdom, where the threshold is 30%, and zero in the United States, where only a few states have a similar provision. We find a negative and significant coefficient for mandatory bid rule, perhaps because mandatory bid rule increases the cost of takeovers and therefore reduces competition among bidders. However, mandatory bid rule might also increase the premium because only high-premium takeovers that compensate the bidders for the high takeover costs succeed. To distinguish between the two effects, in an unreported regression we add the interactive term of mandatory bid rule multiplied by target size. The coefficient on this interactive term should measure the impact on the premium that is due to reduced competition, because larger deals are more likely to be deterred. The coefficient on mandatory bid rule should reflect the fact that low-premium takeovers do not go through. We find that the coefficient on mandatory bid rule is negative and significant, and that the coefficient on the interactive term is not significant. This result suggests that mandatory bid rule captures some institutional difference across countries, an issue to which we now turn.

Because 75% of the deals have a U.S. or U.K. target, in column 6, we check the robustness of this finding by using two dummy variables that identify deals with U.S. and U.K. targets, respectively. The results show that higher premiums are a feature of U.S. and U.K. targets. The logarithm of the premium is 0.16-point higher in the U.S. and 0.09 in the U.K. than in the other countries. Note that mandatory bid rule is no longer significant. This finding suggests that mandatory bid rule is significant in column 5 only because it captures the difference between U.S. and U.K. targets.

3.3 Discussion

Overall, the results in Tables 3 and 4 characterize M&A activity as correlating with investor-friendly legal environments. We interpret these findings along the lines of La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2000b) and argue that a more active market for mergers

and acquisitions is the outcome of a corporate governance regime with stronger investor protection.

With low shareholder protection there are large private benefits of control (Nenova, 2003, and Dyck and Zingales, 2003), and therefore the market for corporate control does not operate freely. Conversely, with high investor protection, there are low private benefits of control, and there is an active market for corporate control. Moreover, better accounting standards increase disclosure, which helps acquirers identify potential targets. Hence, there are more potential targets in countries with better shareholder protection and accounting standards. This view yields two testable predictions: across target countries, the volume and the premium should increase with shareholder protection and accounting standards.

The results on the volume, reported in Table 3, are strongly consistent with this view. The results on the premium, reported in Table 4, are weakly consistent with this view. Table 4 shows that higher shareholder protection in the target company is associated with higher premiums, although U.S. and U.K. firms drive the results.

Our results reject the alternative view that the market for corporate control is a substitute for legal protection of shareholders. According to this view, if the market for corporate control works efficiently, firms with poor corporate governance become the targets of takeovers from more efficient firms (Manne, 1965, and Jensen, 1993). Hence, the volume of M&A activity and the premium paid should be greater in countries with lower investor protection. These predictions are inconsistent with our findings.

3.4 Hostile takeovers

Many financial economists argue that hostile takeovers play an important governance role (for instance, see Manne, 1965; Jensen, 1993; and Franks and Mayer, 1996). To analyze cross-country differences in the frequency of hostile takeovers we adapt specification (1) by changing the dependent variable:

$$\text{Hostile takeover} = \alpha + \beta X + \gamma \text{ Investor protection} + \varepsilon, \qquad (3)$$

where hostile takeover is the number of attempted hostile takeovers in the 1990s as a percentage of the number of domestic traded companies. Common law, accounting standards, shareholder protection, and ownership concentration are proxies for investor protection, as described in

Section 2.2. We include GDP growth and the logarithm of GNP per capita as control factors in all specifications.

The results are presented in Table 5. The first three columns show that common law, accounting standards, and shareholder protection are positively and significantly correlated with hostile takeover. To interpret these results note that hostile takeovers require that control be contestable, a feature that is less common in countries with poorer investor protection.

Column 4 shows that shareholder protection dominates accounting standards. A one-point increase in shareholder protection (the introduction of voting by mail in Belgium) is associated with 0.8% more hostile takeovers. Shareholder protection makes control more contestable by reducing the private benefits of control.

In column 5, we add ownership concentration as a control variable. This variable is not significant. It marginally reduces the coefficient on shareholder protection without affecting its statistical significance. This result compares with Table 3, in which ownership concentration is positive and significant. According to Shleifer and Vishny (1986), ownership concentration facilitates only friendly transfers of control, not hostile takeovers. Hence, the insignificant coefficient in column 5 of Table 5 is not surprising.

To evaluate the robustness of the main result that hostile takeovers are more common in countries with better investor protection, in column 6 we add some control variables to the specification in column 1 to capture cross-country differences in the regulatory environment. As in Table 3, we control for mandatory bid rule and market return. We also include cross-border regulation, a dummy variable that equals one if a foreign buyer needs government approval before acquiring control of a domestic firm, and zero otherwise. Because of cultural differences, deals initiated by foreign bidders are more likely to be hostile. Hence, we expect cross-border regulation to reduce the frequency of hostile takeovers

The results in column 6 show that common law is significant and that its coefficient is virtually unchanged from column 1. The frequency of attempted hostile takeovers among traded companies is 1.6% higher in common-law than in civil-law countries. Cross-border regulation is also significant and negative, as predicted. The requirement of government approval for foreign acquisitions reduces the frequency of attempted hostile takeovers by 1.8%. Market return and mandatory bid rule are not statistically significant.

The findings in Table 5 indicate that the market for corporate control is more effective in countries with higher shareholder protection. However, the results in this section should be

interpreted with some caution because in some countries SDC Platinum might fail to record all unsuccessful takeovers.

3.5 Means of payment

Legal protection of investors may also affect the means of payment used in mergers and acquisitions. We expect less equity financing and more cash financing in countries with lower shareholder protection. The reason is that in a country with low investor protection, target shareholders are likely to prefer cash rather than the bidder's equity as takeover currency, due to the risk of expropriation involved in being minority shareholders.

We estimate a regression for the method of payment:

$$\text{Prob (All-cash bid)} = \alpha + \beta X + \gamma \text{ Shareholder protection} + \varepsilon. \quad (4)$$

In this regression, which is similar to eq. (3), our control variables are the same as those in Table 5, target size, cross-border, hostile bid, tender offer, contested bid, bidder M/B, and mandatory bid rule. We expect that larger deals are less likely to be entirely paid with cash. Cross-border deals might more often be paid for in cash because shareholders dislike receiving foreign stocks as compensation. To entice shareholders to tender, hostile bids, tender offers, and contested bids are likely to be in cash.

Table 6 reports the results of six regressions based on specification (4). In all regressions, the standard errors shown in parenthesis are adjusted for heteroskedasticity using Huber (1967) and White (1980) correction, and for clustering at country level following Huber (1967). We also include year and industry dummies (at one-digit SIC-code level), but we do not report their coefficients.

Across all specifications, we find that shareholder protection is negatively correlated with all-cash bid. We note that an increase in the level of shareholder protection by one point is associated with a reduction between 13% and 18% in the probability of using only cash as the means of payment. Our interpretation of the result is that stocks are less popular means of payment in countries with lower shareholder protection because stocks entail a higher risk of expropriation.

Among the control variables, target size is negative and significant, cross-border, hostile bid, and tender offer are positive and significant, as we expected. Contested bids are not

associated with more cash as method of payment. The probability of using only cash as the method of payment is 17% higher in cross-border deals.

To deepen the analysis of the means of payment in cross-border deals, in column 3 we add the difference between acquirer and target countries' shareholder protection as a further control variable. We expect that the use of stocks as a method of payment be positively correlated with the degree of investor protection in the acquirer country, when acquirer and target countries are different. We find evidence in favor of this prediction because the coefficient on the difference between acquirer and target countries' shareholder protection is negative and significant.

Bidder M/B might be correlated with the use of stocks as means of payment because the bidder could try to take advantage of market booms, as argued by Shleifer and Vishny (2003). In column 4, we add the bidder M/B, but we find that its coefficient is not significantly different from zero.

The mandatory bid rule might require the bidder to make a cash offer or an offer with a cash alternative, as in the U.K. If so, mandatory bid rule should be positively correlated with all-cash bid. However, U.K. bidders often avoid the mandatory tender offer by bidding for 29.9% of the shares, which is just below the 30% threshold for the mandatory tender offer, and then by acquiring the remaining shares via a share offer. If so, mandatory bid rule should not be correlated with all-cash bid. In column 5, we control for mandatory bid rule, and find that its coefficient is not statistically significant.

In column 6, we show that our results are not driven by the deals involving U.S. and U.K. firms. The coefficient on shareholder protection is even larger in absolute terms than in column 1, and equally significant in statistical terms when we include two dummy variables for deals in which the target is a U.K. or U.S. firm, respectively.

As a further robustness check (not reported), we estimate the specification in column 2 with weighted least squares, in which the weights are the inverse of the number of observations by country. With this procedure all countries have the same impact on the final results. The coefficient on shareholder protection is identical to that in column 2.

One concern is that the control variables used in regressions (2) and (4) (tender offer, hostile bid, and cross-border) are themselves endogenous. As a result, our estimates could be inconsistent. To address this issue, we estimate a recursive system with five equations, one for each endogenous variable: premium, all-cash bid, tender offer, hostile bid, and cross-border.

Exogenous variables are target size, bidder M/B, shareholder protection, and mandatory bid rule. We do not present the results of these regressions here, because the coefficients on shareholder protection are similar to those in Tables 4 and 6.

4. Cross-border mergers and acquisitions

La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2000a, p. 23) write that "When a British firm fully acquires a Swedish firm, the possibilities for legal expropriation of investor diminish. Because the controlling shareholders of the Swedish company are compensated in such a friendly deal for the lost private benefits of control, they are more likely to go along. By replacing the wasteful expropriation with publicly shared profits and dividends, such acquisitions enhance efficiency." This statement implies two testable hypotheses that we address in this section: The probability that a deal is cross-border rather than domestic is higher in countries with lower investor protection; and in cross-border deals, the acquirers will come from countries that have higher investor protection than the targets.

4.1 Target-country analysis

As before, we adapt specification (1) by changing the dependent variable:

$$\text{Cross-border ratio} = \alpha + \beta X + \gamma \text{ Investor protection} + \varepsilon, \quad (5)$$

where cross-border ratio is the number of cross-border deals as a percentage of all completed deals by target country. Common law, accounting standards, and shareholder protection are our proxies for investor protection. We expect the cross-border ratio to decrease with investor protection. As before, we control for the logarithm of GNP per capita, as a measure of a country's wealth, and GDP growth as a proxy of the change in macroeconomic conditions.

Table 7 reports the coefficients of six Tobit models derived from specification (5). The results confirm our prediction: the probability that a completed deal is cross-border rather than domestic is higher in countries with lower investor protection. The coefficients on common law, accounting standards, and shareholder protection are all negative and significant at the 1% level. In economic terms, the probability that a completed deal is cross-border is 14.5% higher in civil-law than in common-law countries. Raising accounting standards by 12 points (from Italy's to

Canada's accounting standards) decreases cross-border deals by 5%. An increase in shareholder protection by one point (for instance, the adoption of voting by mail in Belgium) decreases the cross-border ratio by 4%. Ownership concentration, which we add in column 5 as a control variable, is not statistically significant.

To evaluate the robustness of the results, in column 6 we augment the specification in column 1 with some control variables. We add cross-border regulation because we expect fewer cross-border deals associated with more regulatory requirements. We control for market return because we expect fewer cross-border deals when the stock market is booming because foreign acquirers need to buy (potentially-) overvalued stocks. At the same time, this variable will not be significant if the acquirer's stock market is also thriving. We also include openness, a measure of the cultural attitude towards cross-border deals (Global Competitiveness Report, 1996) because such deals are more likely if the country is friendlier to foreigners.[5] Our results show that common law is still significant and that its coefficient is unaffected. Openness is negative and significant, as predicted. The coefficients on market return and cross-border regulation are not significant. The results in Table 7 confirm the prediction that cross-border deals are relatively more common in countries with lower investor protection.

4.2 Ordered-pair analysis

The results in Table 7 indicate that cross-border mergers and acquisitions play a governance role by targeting firms in countries with lower investor protection. To explore this hypothesis, we arrange our data set to produce a worldwide matrix of (49x48) matched pairs. In these pairs, we define each entry – cross-border deals $_{s,b}$ –as the number of deals in which the acquirer comes from country *b* (for buyer) and the target is in country *s* (for seller), as a percentage of the total number of deals in country *s*.

With the newly arranged data set, we can study the pattern of cross-border mergers and acquisitions by simultaneously controlling for the characteristics of target and acquirer countries. The specification is:

[5] Another potential determinant of international mergers and acquisitions is tax competition across countries. For instance, taxes may affect M&A activity because it is easier for domestic firms to take advantage of investment tax credits and accelerated depreciation in the target country than for foreign firms. Moreover, the tax treatment of foreign income differs across countries. However, we do not control for taxes in our study because the complexity of the issue requires a paper on its own.

$$\text{Cross-border deals}_{s,\,b} = \beta\, X_{s,\,b} + \gamma\, \Delta(\text{Investor protection})_{s,\,b} + \delta_b + \zeta_s + \varepsilon_{s,\,b}, \quad (6)$$

where the dependent variable is the number of cross-border deals in which the acquirer comes from country *b* and the target from country *s* ($b \neq s$) as a percentage of the total number of deals (cross-border and domestic) in country *s*.

Our hypothesis is that the volume of cross-border M&A activity between country *b* (the acquirer) and country *s* (the target) correlates positively with the difference in investor protection between the two countries. The proxies for investor protection are accounting standards and shareholder protection.

We note that our specification also includes fixed effects for target and acquirer countries. These fixed effects control for all cultural and institutional characteristics of the two countries, including the level of investor protection in the individual countries. We control for differences in the logarithm of GNP per Capita of acquirer and target country as a measure of the relative economic development of the two countries. We also include two dummy variables equal to one if acquirer and target share the same cultural background, that is, if they have the same official language and belong to the same geographical area.

Table 8 reports our results. In columns 1 and 2, we include only one measure of investor protection per regression. We find that the volume of M&A activity between two countries is positively correlated with their difference in investor protection. This result means that acquirers typically come from countries with better accounting standards and stronger shareholder protection than the targets'.

In column 3, we estimate the marginal impact of each variable by estimating a joint regression with the two measures. We find that only the difference in shareholder protection is statistically significant. On average, shareholder protection increases in the target company via the cross-border deal. This finding is consistent with the view that such acquisitions enhance efficiency because the increase in shareholder protection curbs the expropriation of minority shareholders and, therefore, reduces the cost of raising external equity. We also find that richer countries are more likely to be acquirers rather than targets, and that most cross-border deals happen between countries sharing the same language and geographical area.

In column 4, we add the difference in market return between acquirer and target countries as control variable. We would expect more deals when the acquirer's stock market is booming relatively to the target's stock market, but we find no such evidence.

A potentially important missing variable in the analysis is the volume of trade between two countries. In fact, companies that export to a given country might engage in M&A activity in that country for reasons that have nothing to do with governance. To control for this alternative explanation, in column 5 we add bilateral trade to our regression. We define bilateral $trade_{s,\,b}$ as imports from country *b* to country *s*, as a percentage of total imports of country *s*.[6]

The results for shareholder protection are unchanged. The acquirer typically has stronger shareholder protection than the target. As we expected, bilateral trade is positive and significant, confirming that trade is an important motive for cross-border mergers and acquisitions. Same language and the difference in the logarithm of GNP per capita are no longer significant once bilateral trade is added to the baseline specification.

4.3 Discussion

The results in Table 8 relate to the on-going debate among legal scholars on the possibility of effective worldwide convergence in corporate governance standards. Coffee (1999) argues that differences in corporate governance will persist but with some degree of functional convergence. Hansmann and Kraakman (2001) believe that formal convergence will happen soon. Bebchuk and Roe (1999) question the idea of a rapid convergence because political and economic forces will slow down any change. Gilson (2001) argues that convergence will happen through all three channels (formal, contractual and functional).

Our findings are consistent with the prediction by Coffee (1999) that companies from countries with better protection of investors will end up buying companies from countries with weaker protection.

The case for target shareholders to sell out to bidders with higher governance standards is clear. Targets stand to gain from the lower cost of capital associated with higher investor protection. However, it is not obvious why acquirers seek to take over a poorly governed company. The results in Table 4, column 3, show that acquirers from countries with better investor protection do not pay higher takeover premiums than acquirers from countries with weaker investor protection. Hence, they share part of the surplus created by improving the corporate governance within the target.

[6] Bilateral trade is not available for six countries: Belgium, Brazil, Israel, Nigeria, Switzerland and Zimbabwe. The

One concern is that they might import the poorer governance of their targets (poor accounting and disclosure practices, board structures, and so on). However, anecdotal evidence of cross-border deals with high press coverage suggests that this is not the case. The targets almost always adopt the governance standards of the acquirers, whether good or bad. For instance in Daimler's acquisition of Chrysler, the resulting company has adopted a two-tier board structure, as required by German law. Thus, if convergence is to happen, it is towards the acquirers' governance standards.

A related issue is that the deal may be motivated by agency and hubris problems of the acquirer rather than by the desire to improve the governance regime in the target company. If so, the deal may not create value. Assessing this issue requires a study of the price reaction of the target and acquirer, which we cannot do with our large sample. Instead, we can indirectly test this issue. If countries with poorer investor protection (in particular, lower governance standards, as measured by lower shareholder protection) have more severe agency problems, the hypothesis predicts more acquisitions by companies in countries with lower shareholder protection. This is not what we observe. If we sort our data by acquirer country, we find rather the opposite (not reported): more acquisitions by companies in countries with higher shareholder protection.

Our analysis also sheds light on the question as to whether cross-border deals may lead to greater international stock market integration and to a reduction of the home bias in equity investment in target countries. If the foreign bidder pays with stock, target shareholders face the problem of disposing of a new investment domiciled abroad. As a result, they might choose to keep the foreign stocks. In aggregate, these individual decisions would imply a reduction of the home bias in equity investment in target countries. We show in Table 6, column 3, that target shareholders accept the acquirer's shares more often if the investor protection in the acquirer's country is greater than in the target's country. Hence, the reduction of the home bias puzzle goes together with a convergence in corporate governance regime. In this sense, our findings are consistent with Dahlquist, Pinkowitz, Stulz, and Williamson (2003).

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number of observations in column 5 changes accordingly.

5. Conclusion

Using a large sample of deals in 49 major countries, announced in the 1990s and completed by the end of 2002, we find that better investor protection is associated with more mergers and acquisitions, more attempted hostile takeovers, and fewer cross-border deals. We also find that better investor protection is associated with greater use of stock as method of payment, and with higher takeover premiums. These results indicate that domestic investor protection is an important determinant of the competitiveness and effectiveness of the market for mergers and acquisitions within a country.

In cross-border deals, we find that on average acquirers have higher investor protection than targets, that is, firms opt out of a weak governance regime via cross-border deals. This result indicates that the international market for corporate control helps generate convergence in corporate governance regimes across countries.

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Table 1
Data on international mergers and acquisitions sorted by target country
Volume is the percentage of traded companies targeted in a completed deal. Hostile takeover is the number of attempted hostile takeovers as a percentage of domestic traded firms. Cross-border ratio is the number of cross-border deals as a percentage of all completed deals.

Country	Volume (%)	Hostile takeover (%)	Cross-border ratio (%)
Argentina	26.80	0.65	53.73
Australia	34.09	4.60	27.16
Austria	38.14	1.03	51.55
Belgium	33.33	0.56	45.14
Brazil	23.08	0.00	52.03
Canada	30.05	2.73	22.66
Chile	10.57	0.42	64.79
Colombia	19.42	0.00	66.67
Denmark	24.03	0.81	38.26
Ecuador	10.53	0.00	68.97
Egypt	1.46	0.00	47.62
Finland	45.45	0.91	22.67
France	56.40	1.68	33.81
Germany	35.51	0.30	26.05
Greece	12.66	0.00	23.13
Hong Kong	33.91	0.41	38.52
India	2.01	0.02	56.02
Indonesia	10.60	0.48	61.03
Ireland	28.90	4.62	52.73
Israel	9.43	0.23	46.94
Italy	56.40	3.04	36.13
Japan	6.43	0.00	13.25
Jordan	0.00	0.00	55.56
Kenya	1.80	0.00	28.57
Malaysia	15.23	0.19	11.27
Mexico	27.51	0.00	51.02
Netherlands	26.49	1.32	43.43
New Zealand	49.82	0.70	46.15
Nigeria	0.61	0.00	58.33
Norway	61.24	5.86	36.76
Pakistan	0.48	0.00	55.56
Peru	12.21	0.00	56.88
Philippines	21.41	0.00	37.97
Portugal	31.37	1.96	40.00
Singapore	34.06	0.40	31.41
South Africa	23.89	0.45	24.65
South Korea	4.81	0.00	53.85
Spain	15.72	0.17	37.55
Sri Lanka	4.83	0.00	42.86
Sweden	62.06	3.74	35.48
Switzerland	38.48	1.43	43.59
Taiwan	0.89	0.00	49.37
Thailand	17.14	0.00	43.24
Turkey	6.12	0.00	45.45
United Kingdom	53.65	4.39	23.46
United States	65.63	6.44	9.07
Uruguay	7.55	0.00	85.00
Venezuela	14.91	0.00	56.60
Zimbabwe	6.35	0.00	46.15

Table 2
Summary statistics on the sample of individual deals sorted by target country

Premium is the bid price as a percentage of the closing price of the target four weeks before the announcement. All-cash bid is a dummy variable that equals one if the acquisition is entirely paid in cash, and zero otherwise.

Country	Premium		All-cash bid		N. obs.
	Mean	Std. dev.	Mean	Std. dev.	
Australia	129.5	37.4	0.60	0.49	212
Austria	129.8	25.2	0.83	0.41	6
Belgium	137.2	56.1	0.86	0.38	7
Brazil	110.5	0.0	0.00	0.00	1
Canada	132.9	40.1	0.36	0.48	157
Chile	149.9	24.5	1.00	0.00	3
Denmark	142.2	41.2	0.83	0.41	6
Finland	149.7	53.2	1.00	0.00	7
France	133.4	53.6	0.88	0.32	112
Germany	116.7	35.3	0.77	0.44	13
Greece	165.5	112.8	0.67	0.58	3
Hong Kong	129.8	56.1	0.93	0.25	46
India	178.6	113.2	0.67	0.50	9
Indonesia	222.5	150.1	1.00	0.00	2
Ireland	121.1	22.7	0.78	0.44	9
Israel	220.2	153.2	0.50	0.71	2
Italy	127.7	26.8	0.88	0.33	26
Japan	99.0	41.7	0.36	0.48	73
Malaysia	151.7	76.8	0.91	0.29	23
Mexico	124.5	17.0	1.00	0.00	2
Netherlands	144.7	37.9	0.50	0.52	16
New Zealand	129.2	17.6	0.94	0.25	16
Norway	136.0	37.6	0.76	0.43	37
Philippines	157.7	81.0	0.56	0.53	9
Portugal	149.9	57.1	1.00	0.00	4
Singapore	152.9	79.3	0.85	0.37	39
South Africa	129.5	63.2	0.68	0.48	28
South Korea	145.1	102.7	0.50	0.58	4
Spain	119.8	30.0	0.70	0.48	10
Sweden	141.7	40.6	0.71	0.46	45
Switzerland	111.0	33.3	0.89	0.33	9
Thailand	126.0	79.3	0.92	0.28	13
Turkey	127.5	0.0	1.00	0.00	1
United Kingdom	145.8	41.9	0.64	0.48	614
United States	144.3	42.4	0.37	0.48	2443
Total	141.6	44.7	0.48	0.50	4007

Table 3
Determinants of the volume across countries

The table presents results of six Tobit models estimated by maximum likelihood for the sample of 49 target countries. The dependent variable is volume, the percentage of traded companies targeted in a completed deal. The independent variables are: (1) common law, a dummy variable that equals one if the origin of the Company Law is the English Common Law, and zero otherwise; (2) accounting standards, an index of the quality of accounting disclosure; (3) shareholder protection, a measure of the effective rights of minority shareholders; (4) ownership concentration, the average equity stake owned by the three largest shareholders in the ten largest nonfinancial domestic firms in 1994; (5) mandatory bid rule, a dummy variable that equals one if acquirers are forced to make a tender offer to all shareholders when passing a given ownership threshold, and zero otherwise; (6) market return, the average annual stock market return in the 1990s; and (7) market dominance, a survey-based measure of product market concentration. The logarithm of GNP per capita and GDP growth are included in all regressions as control variables. Standard errors are shown in parentheses. ***, **, * indicate significance at 1% percent, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Log (GNP per capita)	9.00***	5.61***	6.40***	4.49**	4.75**	8.81***
	(1.24)	(1.94)	(1.48)	(2.04)	(2.02)	(2.05)
GDP growth	-2.42	-2.57*	-2.42**	-3.05**	-3.11**	-2.33
	(1.12)	(1.12)	(1.07)	(1.32)	(1.36)	(1.48)
Common law	7.52*					9.06*
	(3.97)					(5.06)
Accounting standards		0.47**		0.35*	0.43**	
		(0.18)		(0.20)	(0.20)	
Shareholder protection			4.27***	2.96	4.65**	
			(1.69)	(2.01)	(2.32)	
Ownership concentration					0.38*	
					(0.20)	
Mandatory bid rule						-0.58
						(4.10)
Market return						0.21
						(0.15)
Market dominance						-3.40
						(3.57)
Constant	-48.1***	-43.1***	-31.8***	-30.8*	-58.4***	-38.3**
	(12.0)	(16.5)	(12.5)	(18.1)	(22.1)	(17.7)
Pseudo R^2	0.10	0.08	0.10	0.09	0.09	0.09
N. observations	49	41	49	41	39	41

Table 4
Determinants of the takeover premium

The table presents results of six OLS regressions for the sample of individual deals. The dependent variable is the natural logarithm of premium, the bid price as a percentage of the closing price of the target four weeks before the announcement. Independent variables at country level are: shareholder protection, a measure of the effective rights of minority shareholders, and mandatory bid rule, a dummy variable that equals one if in 1995 there was a legal requirement to make a tender offer when shareholdings after the acquisition exceed a given ownership threshold, and zero otherwise. Control variable at cross-country level is the difference between acquirer and target countries' shareholder protection. Control variables at deal level are: (1) target size, the logarithm of the target's market capitalization four weeks before the announcement; (2) cross-border, a dummy variable that equals one if the deal is cross-border, and zero otherwise; (3) hostile bid, a dummy variable that equals one if the deal is hostile, and zero otherwise; (4) tender offer, a dummy variable that equals one if the deal involves a tender offer, and zero otherwise; (5) contested bid, a dummy variable that equals one if the number of bidders is larger than one, and zero otherwise; and (6) bidder M/B, the equity market-to-book ratio of the bidder four weeks before the announcement. In all regressions, we also include year and industry (at one-digit SIC-code level) dummies (not shown). In column 6 we add two dummy variables that identify deals where the target firm is from the U.S. (U.S. targets) and from the U.K. (U.K. targets), respectively. The standard errors (in parentheses) are adjusted for heteroskedasticity using Huber (1967) and White (1980) correction and for clustering at country level using Huber (1967) correction. ***, **, * indicate significance at 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Shareholder protection	0.04***	0.05***	0.05***	0.07***	0.04***	-0.01
	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.02)
Target size	-0.01***	-0.01***	-0.01***	-0.02**	-0.02***	-0.02***
	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)
Cross-border		0.03*	0.03*	0.02	0.03**	0.04**
		(0.02)	(0.02)	(0.03)	(0.01)	(0.02)
Hostile bid		0.04	0.04	0.03	0.04	0.06***
		(0.03)	(0.03)	(0.06)	(0.03)	(0.02)
Tender offer		0.05***	0.05***	0.04	0.07***	0.08***
		(0.01)	(0.01)	(0.02)	(0.01)	(0.01)
Contested bid		0.10**	0.10**	0.05	0.10**	0.11***
		(0.04)	(0.04)	(0.05)	(0.04)	(0.04)
Δ(Shareholder protection)$_{b-s}$			0.00			
			(0.01)			
Bidder M/B				0.01		
				(0.00)		
Mandatory bid rule					-0.06**	-0.01
					(0.02)	(0.04)
U.S. targets						0.16**
						(0.07)
U.K. targets						0.09***
						(0.03)
R^2	0.03	0.04	0.05	0.08	0.05	0.06
N. observations	4007	4007	4007	1005	4007	4007
N. countries	35	35	35	27	35	35

Table 5
Incidence of hostile takeovers

The table presents results of six Tobit models estimated by maximum likelihood on the sample of 49 target countries. The dependent variable is hostile takeover, attempted hostile takeovers as a percentage of traded firms. The independent variables are: (1) common law, a dummy variable that equals one if the origin of the Company Law is the English Common Law, and zero otherwise; (2) accounting standards, an index of the quality of accounting disclosure; (3) shareholder protection, a measure of the effective rights of minority shareholders; (4) ownership concentration, the average equity stake owned by the three largest shareholders in the 10 largest non-financial domestic firms in 1994; (5) cross-border regulation, a dummy variable that equals one if foreign buyers need government approval, and zero otherwise; (6) market return, the average annual stock market return in the 1990s; and (7) mandatory bid rule, a dummy variable that equals one if acquirers are forced to make a tender offer to all shareholders when passing a given ownership threshold, and zero otherwise. The logarithm of GNP per capita and GDP growth are included in all regressions as control variables. Standard errors are shown in parentheses. ***, **, * indicate significance at 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Log (GNP per capita)	1.30***	0.93**	0.75***	0.61*	0.64**	1.08**
	(0.26)	(0.35)	(0.27)	(0.32)	(0.32)	(0.26)
GDP growth	0.08	0.04	0.06	-0.10	-0.05**	0.09
	(0.19)	(0.21)	(0.17)	(0.18)	(0.19)	(0.19)
Common law	1.53**					1.57**
	(0.68)					(0.70)
Accounting standards		0.07**		0.02	0.02	
		(0.03)		(0.03)	(0.03)	
Shareholder protection			0.88***	0.84**	0.73**	
			(0.25)	(0.26)	(0.31)	
Ownership concentration					-0.01	
					(0.03)	
Cross-border regulation						-1.80*
						(0.93)
Market return						0.02
						(0.02)
Mandatory bid rule						-0.04
						(0.59)
Constant	-12.0***	-12.2***	-8.34***	-7.93**	-7.06*	-9.75***
	(2.63)	(3.32)	(2.53)	(3.09)	(3.61)	(2.62)
Pseudo R^2	0.20	0.17	0.24	0.23	0.22	0.23
N. observations	49	41	49	41	39	47

Table 6
Means of payment

The table reports estimates of six Probit models for the sample of individual deals. The dependent variable is all-cash bid, a dummy variable that equals one if the acquisition is entirely paid in cash, and zero otherwise. Independent variables at country level are: shareholder protection, a measure of the effective rights of minority shareholders, and mandatory bid rule, a dummy variable that equals one if in 1995 there was a legal requirement to make a tender offer when shareholdings after the acquisition exceed a given ownership threshold, and zero otherwise. Control variable at cross-country level is the difference between acquirer and target countries' shareholder protection. Control variables at deal level are: (1) target size, the logarithm of the target's market capitalization four weeks before the announcement; (2) cross-border, a dummy variable that equals one if the deal is cross-border, and zero otherwise; (3) hostile bid, a dummy variable that equals one if the deal is hostile, and zero otherwise; (4) tender offer, a dummy variable that equals one if the deal involves a tender offer, and zero otherwise; (5) contested bid, a dummy variable that equals one if the number of bidders is larger than one, and zero otherwise; and (6) bidder M/B, the equity market-to-book ratio of the bidder four weeks before the announcement. In all regressions, we also include year and industry (at one-digit SIC-code level) dummies (not shown). In column 6 we add two dummy variables that identify deals where the target firm is from the U.S. (U.S. targets) and from the U.K. (U.K. targets), respectively. Displayed coefficients are the change in probability for an infinitesimal change in the independent variables. The standard errors (in parentheses) are adjusted for heteroskedasticity using Huber (1967) and White (1980) correction and for clustering at country level using Huber (1967) correction. ***, **, * indicate significance at 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Shareholder protection	-0.18***	-0.13***	-0.14***	-0.08**	-0.15***	-0.16***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.04)
Target size	-0.06***	-0.07***	-0.07***	-0.02	-0.08***	-0.08***
	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Cross-border		0.17***	0.14**	0.21***	0.14***	0.14***
		(0.04)	(0.05)	(0.05)	(0.04)	(0.05)
Hostile bid		0.10***	0.09**	0.08	0.10**	0.09**
		(0.04)	(0.04)	(0.08)	(0.04)	(0.04)
Tender offer		0.33***	0.32***	0.36***	0.34***	0.37***
		(0.08)	(0.08)	(0.11)	(0.09)	(0.08)
Contested bid		0.04	0.04	0.12*	0.05	0.04
		(0.04)	(0.04)	(0.07)	(0.04)	(0.04)
Δ(Shareholder protection)$_{b-s}$			-0.06***	-0.01	-0.06***	-0.05***
			(0.01)	(0.03)	(0.01)	(0.02)
Bidder M/B				0.00		
				(0.00)		
Mandatory bid rule					-0.06	
					(0.08)	
U.S. targets						0.04
						(0.10)
U.K. targets						-0.10
						(0.06)
Pseudo R^2	0.11	0.18	0.19	0.20	0.19	0.19
N. observations	4007	4007	4007	1005	4007	4007
N. countries	35	35	35	27	35	35

Table 7
Cross-border versus domestic deals

The table presents results of six Tobit models estimated by maximum likelihood on the sample of 49 target countries. The dependent variable is cross-border ratio, cross-border deals as a percentage of all completed deals. The independent variables are: (1) common law, a dummy variable that equals one if the origin of the Company Law is the English Common Law, and zero otherwise; (2) accounting standards, an index of the quality of accounting disclosure; (3) shareholder protection, a measure of the effective rights of minority shareholders; (4) ownership concentration, the average equity stake owned by the three largest shareholders in the 10 largest non-financial domestic firms in 1994; (5) cross-border regulation, a dummy variable that equals one if foreign buyers need government approval, and zero otherwise; (6) market return, the average annual stock market return in the 1990s; and (7) openness, a survey-based measure of the cultural attitude towards cross-border deals. The logarithm of GNP per capita and GDP growth are included in all regressions as control variables. Standard errors are shown in parentheses. ***, **, * indicate significance at 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Log (GNP per capita)	-5.32***	-1.99	-1.47	-0.64	-1.21	-4.77***
	(1.20)	(1.74)	(1.50)	(1.79)	(1.72)	(1.51)
GDP growth	1.75	0.90	1.44	1.48	1.38	3.48***
	(1.08)	(1.17)	(1.08)	(1.15)	(1.16)	(1.19)
Common law	-14.5***					-16.1***
	(3.83)					(4.02)
Accounting standards		-0.67***		-0.53***	-0.41**	
		(0.16)		(0.17)	(0.17)	
Shareholder protection			-6.03***	-3.55**	-4.14**	
			(1.71)	(1.76)	(1.98)	
Ownership concentration					-0.11	
					(0.17)	
Cross-border regulation						5.05
						(4.36)
Market return						-0.15
						(0.13)
Openness						7.77***
						(2.84)
Constant	87.7***	96.5***	62.7***	81.7***	85.0***	38.1*
	(11.7)	(14.8)	(12.7)	(15.9)	(18.8)	(20.0)
Pseudo R^2	0.06	0.07	0.05	0.09	0.08	0.09
N. observations	49	41	49	41	39	41

Table 8
The governance motive in cross-border M&A

The table presents results of five OLS regressions for the sample of matched country pairs. The dependent variable is cross-border deals $_{s,\,b}$, the number of cross-border deals where the target is from country *s* and the acquirer is from country *b* ($s \neq b$) as a percentage of the total number of deals in country *s*. The independent variables are the difference between acquirer and target countries' investor protection as measured alternatively by accounting standards, an index of the quality of accounting disclosure, and by shareholder protection, a measure of the effective rights of minority shareholders. We include as control variables: the difference between acquirer's and target's logarithm of GNP per capita; same language, a dummy variable that equals one if target and acquirer come from countries with the same official language, and zero otherwise; and same geographical area, a dummy variable that equals one if target and acquirer come from the same geographical area. In column 4, we add the difference between country *b* and country *s* in market return, the average annual stock market return in the 1990s. In column 5, we add bilateral trade$_{s,\,b}$, the value of imports by country *s* from country *b* as a percentage of total import by country *s*. The regressions contain fixed effects both for target and acquirer country (not shown). The standard errors shown in parentheses are adjusted for heteroskedasticity using Huber (1967) and White (1980) correction. ***, **, * indicate significance at 1%, 5% and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)
Δ(Accounting standards)$_{b\text{-}s}$	0.02^{***}		0.01		
	(0.01)		(0.00)		
Δ(Shareholder protection)$_{b\text{-}s}$		1.93^{***}	1.89^{***}	1.89^{***}	1.21^{***}
		(0.19)	(0.21)	(0.20)	(0.23)
Δ(Log(GNP per capita))$_{b\text{-}s}$	0.10^{*}	0.97^{***}	0.40^{***}	0.95^{***}	0.06
	(0.05)	(0.10)	(0.05)	(0.10)	(0.04)
Same language	0.86^{**}	0.97^{***}	0.86^{**}	1.02^{**}	0.08
	(0.36)	(0.30)	(0.36)	(0.31)	(0.22)
Same geographical area	1.30^{***}	1.12^{***}	1.30^{***}	1.13^{***}	0.36^{***}
	(0.14)	(0.11)	(0.14)	(0.12)	(0.15)
Δ(Market return)$_{b\text{-}s}$				0.00	
				(0.00)	
Bilateral trade$_{s,\,b}$					0.67^{***}
					(0.10)
Adjusted R^2	0.53	0.50	0.53	0.51	0.67
N. observations	1640	2352	1640	2162	1677

Appendix

Description of the variables included in our study and their sources.

Country-level variables

Volume	Percentage of domestic traded companies targeted in completed deals in 1990s. Sources: SDC Platinum, provided by Thompson Financial Securities Data, and the World Development Indicators.
Hostile takeover	Attempted hostile takeovers as a percentage of domestic traded companies. Sources: SDC Platinum and the World Development Indicators.
Cross-border ratio	Number of cross-border deals as target as a percentage of all completed deals, sorted. Source: SDC Platinum.
GDP growth	Average annual real growth rate of the Gross Domestic Product in 1990s. Source: World Development Report.
GNP per capita	Gross National Product in 1995 (in US$) divided by the population. Source: World Development Report.
Common law	Equals one if the origin of the Company Law is the English Common Law and zero otherwise. Source: La Porta, et al. (1998).
Accounting standards	Index created by the Center for International Financial Analysis and Research to rate the quality of 1990 annual reports on their disclosure of accounting information. Source: La Porta, et al. (1998).
Rule of law	Assessment of the law and order tradition in the country produced by the risk-rating agency International Country Risk (ICR). Average of the months of April and October of the monthly index between 1982 and 1995. It ranges between zero and ten. Source: La Porta, et al. (1998).
Antidirector rights	The index is formed by adding one when (1) the country allows shareholders to mail their proxy vote to the firm, (2) shareholders are not required to deposit their shares prior to the general shareholders' meeting, (3) cumulative voting or proportional representation of minorities in the board of directors is allowed, (4) an oppressed minorities mechanism is in place, (5) the minimum percentage of share capital that entitles a shareholder to call for an extraordinary shareholders' meeting is less than or equal to 10% (the sample median), or (6) shareholders have preemptive rights that can be waived only by a shareholders' vote. Source: La Porta, et al. (1998).
Shareholder protection	Measure of the effective rights of minority shareholders computed as the product of rule of law and antidirector rights divided by ten. It ranges between zero and six.
Ownership concentration	Average equity stake owned by the three largest shareholders in the ten largest non-financial domestic firms in 1994. Source: La Porta, et al. (1998).
Cross-border regulation	Equals one if in 1995 a foreign buyer needed government approval before acquiring control of a domestic firm and zero otherwise. Source: Economist Intelligence Unit, Country Surveys.

Market return	Average annual stock market return in 1990s adjusted for inflation with the Consumer Price Index. Source: WorldScope.
Market dominance	Response to survey question: "Market dominance by a few enterprises is rare in key industries (1=strongly disagree, 6=strongly agree)". Source: The Global Competitiveness Report, 1996.
Mandatory bid rule	Equals one if in 1995 there was a legal requirement to make a tender offer when shareholding after the acquisition exceeds a given ownership threshold and zero otherwise. Source: Economist Intelligence Unit, Country Surveys.
Openness	Response to survey question: "Foreign investors are free to acquire control of a domestic company (1=strongly disagree, 6=strongly agree)". Source: The Global Competitiveness Report, 1996.

Deal-level variables

Premium	Bid price as a percentage of the closing price of the target four weeks before the announcement. Source: SDC Platinum.
All-cash bid	Equals one if the acquisition is entirely paid in cash and zero otherwise. Source: SDC Platinum.
Target size	Logarithm of the market capitalization of the target four weeks before the announcement of the deal in US$ million. Source: SDC Platinum.
Tender offer	Equals one if the acquisition is done through a tender offer and zero otherwise. Source: SDC Platinum.
Cross-border	Equals one if the target country differs from the acquirer country and zero otherwise. Source: SDC Platinum.
Hostile bid	Equals one if our source classifies the bid as unsolicited and zero otherwise. Source: SDC Platinum.
Contested bid	Equals one if the number of bidders is larger than one and zero otherwise. Source: SDC Platinum.
Bidder M/B	Equity market-to-book ratio of the bidder computed four weeks before the announcement. Source: Datastream.

Cross-border variables

Cross-border deals$_{s,\,b}$	Number of deals in which the target is from country *s* and the acquirer is from country *b* shown as a percentage of the total number of deals with target in country *s*. Source: SDC Platinum.
Same language	Equals one when target and acquirer's countries share the same main language and zero otherwise. Source: World Atlas 1995.
Same geographical area	Equals one when target and acquirer's countries are from the same broadly defined continent and zero otherwise. We classify all countries into four areas (Africa, America, Asia, and Europe). Source: World Atlas 1995.
Bilateral trade$_{s,\,b}$	Value of imports by country *s* from country *b* as a percentage of total import by country *s*. Source: World Bank Trade and Production Database.

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