

Spillover of Corporate Governance Standards in Cross-Border Mergers and Acquisitions

Finance Working Paper N° 197/2008

February 2008

Marina Martynova

Luc Renneboog

Tilburg University, CentER and ECGI

© Marina Martynova and Luc Renneboog 2008. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

This paper can be downloaded without charge from:
<https://www.ecgi.global/publications/working-papers>

ECGI Working Paper Series in Finance

Spillover of Corporate Governance Standards in Cross-Border Mergers and Acquisitions

Working Paper N° 197/2008
February 2008

Marina Martynova
Luc Renneboog

The authors gratefully acknowledge support from the European Commission via the 'New Modes of Governance'-project (NEWGOV) led by the European University Institute in Florence; contract No. CIT1CT-2004-506392.

© Marina Martynova and Luc Renneboog 2008. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

Abstract

In cross-border acquisitions, the differences between the bidder and target corporate governance have an important impact on the takeover returns. Our country-level corporate governance indices capture the changes in the quality of the national corporate governance regulations over the past 15 years. When the bidder is from a country with a strong shareholder orientation (relative to the target), part of the total synergy value of the takeover may result from the improvement in the governance of the target assets. In full takeovers, the corporate governance regulation of the bidder is imposed on the target (the positive spillover by law hypothesis). In partial takeovers, the improvement in the target corporate governance may occur on voluntary basis (the spillover by control hypothesis). Our empirical analysis corroborates both spillover effects. In contrast, when the bidder is from a country with poorer shareholder protection, the negative spillover by law hypothesis states that the anticipated takeover gains will be lower as the poorer corporate governance regime of the bidder will be imposed on the target. The alternative bootstrapping hypothesis argues that poor-governance bidders voluntarily bootstrap to the better-governance regime of the target. We do find support for this bootstrapping effect.

Keywords: takeovers, mergers and acquisitions, cross-border, takeover synergies, corporate governance regulation,

JEL Classification: G30, G34, G38, G18, G14, G15

Marina Martynova

Luc Renneboog

Tilburg University, CentER and ECGI

Professor of Corporate Finance

Tilburg University, School of Economics and Management, Department of Finance

e-mail: luc.renneboog@tilburguniversity.edu

TILEC

TILEC Discussion Paper

DP 2008-008

Spillover of Corporate Governance Standards in Cross-Border Mergers and Acquisitions

By

Marina Martynova and Luc Renneboog

February 2008

ISSN 1572-4042

<http://ssrn.com/abstract=1094661>

Spillover of Corporate Governance Standards in Cross-Border Mergers and Acquisitions

Marina Martynova

The University of Sheffield Management School

and

Luc Renneboog

Tilburg University and European Corporate Governance Institute (ECGI)

Abstract:

In cross-border acquisitions, the differences between the bidder and target corporate governance have an important impact on the takeover returns. Our country-level corporate governance indices capture the changes in the quality of the national corporate governance regulations over the past 15 years. When the bidder is from a country with a strong shareholder orientation (relative to the target), part of the total synergy value of the takeover may result from the improvement in the governance of the target assets. In full takeovers, the corporate governance regulation of the bidder is imposed on the target (the *positive spillover by law* hypothesis). In partial takeovers, the improvement in the target corporate governance may occur on voluntary basis (the *spillover by control* hypothesis). Our empirical analysis corroborates both spillover effects. In contrast, when the bidder is from a country with poorer shareholder protection, the *negative spillover by law* hypothesis states that the anticipated takeover gains will be lower as the poorer corporate governance regime of the bidder will be imposed on the target. The alternative *bootstrapping hypothesis* argues that poor-governance bidders voluntarily bootstrap to the better-governance regime of the target. We do find support for this bootstrapping effect.

JEL codes: G30, G34, G38, G18, G14, G15.

Key words: takeovers, mergers and acquisitions, cross-border, takeover synergies, corporate governance regulation, contractual convergence, shareholder protection, creditor protection, minority shareholder protection, takeover regulation

Acknowledgments: We would like to thank all the corporate governance regulation experts and lawyers listed in the data appendix for their help. We are grateful for valuable comments from Arturo Bris, Christos Cabolis, Hans Degryse, Espen Eckbo, Julian Franks, Marc Goergen, Kate Litvak, Dennis Mueller, Steven Ongena, Annette Poulsen, Peter Szilagyi, Hubert Waelrant, Adriaan Willaert, Hannes Wagner, and Chendi Zhang and the participants of seminars at Cambridge University, CUNEF (Madrid), Keele University, New Economic School, Tilburg University, Sheffield University, Standard & Poor's Moscow office, and University of Lille 2. We also acknowledge suggestions from the participants of the Conference on Empirical Legal Studies (New York, 2007), FMA Annual Meeting (Orlando, 2007), EFA Meeting (Ljubljana, 2007), Citicorp's Quantitative Conference (Cannes, 2007), EFMA Meeting (Vienna, 2007), Contractual Corporate Governance Symposium (Sheffield, 2007), FinLawMetrics Conference (Milan, 2007), FMA European Meeting (Barcelona, 2007), and Corporate Governance Conference (Cambridge, 2007). The authors gratefully acknowledge support from the European Commission via the 'New Modes of Governance'-project (NEWGOV) led by the European University Institute in Florence; contract No. CIT1-CT-2004-506392. Luc Renneboog is also grateful to the Netherlands Organization for Scientific Research for a replacement subsidy of the programme 'Shifts in Governance'.

Contact details:

Corresponding author: Marina Martynova: The University of Sheffield Management School, 9 Mappin Street, S1 4DT Sheffield, UK; Tel: +44 (0) 114 222 3344; Fax: +44 (0) 114 2223348; Email: M.Martynova@sheffield.ac.uk

Luc Renneboog: Tilburg University, PO Box 90153, 5000 LE Tilburg, The Netherlands, Tel: + 31 13 466 8210; Fax: + 31 13 466 2875; Email: Luc.Renneboog@uvt.nl

I. Introduction

Cross-border merger and acquisition (M&A) activity has increased significantly over the last 15 years (Moeller and Schlingemann, 2005). Expansion through cross-border acquisitions enables companies to exploit differences in tax systems and to capture rents resulting from market inefficiencies, such as national controls over labour and resources markets (Scholes and Wolfson, 1990; Servaes and Zenner, 1994). An additional source of takeover value in cross-border M&As may be induced by improvements in the governance of the bidding and target firms as a result of spillovers of corporate governance standards between the two firms.

Wang and Xie (2007) show that both bidder and target firms benefit from corporate governance improvements in domestic US mergers and acquisitions. They use the firm-level shareholder rights indices of Gompers, Ishii, and Metrick (2003) and show that takeover synergies increase with the differences in the index between the bidder and the target. We hypothesize that the scope for potential improvements in corporate governance is even greater in cross-border M&As as the difference between the bidder and target quality of corporate governance is amplified by the significant variation in national corporate governance standards. Therefore, our main question is: *Do differences in the quality of corporate governance standards between the bidder and target countries explain part of the expected value creation in cross-border takeovers?* In other words, is there a valuation effect of cross-border spillover of corporate governance standards (and more specifically of investor protection) ?

Why would we expect such a spillover valuation effect for corporate governance? In international law, a full takeover leads to a change in nationality of the target firm such that the acquirer's corporate governance regulation will apply to the combined company, in effect replacing the target corporate governance (Bris and Cabolis, 2007a). When the bidder is subject to better corporate governance regulation than the target, the acquisition may result in an improvement in corporate governance (e.g. enhanced shareholder orientation) in the target. If this improvement is expected to generate value, the abnormal share price returns of both the bidder and target should reflect such value creation. We call this hypothesis the *positive spillover by law hypothesis*. 'Positive' refers to the corporate governance improvement for the target as a result of the full takeover by the bidder. In other words, the better the bidder corporate governance, the higher are the returns to the bidder and target firms from the takeover. Likewise, we define the *negative spillover by law hypothesis*: when the bidder governance standards are below those of the target, the abnormal returns will be lower as the governance standards of the target will now be less strict.

As the *negative spillover by law* effect is expected between a bidder in a country with low investor protection and a target in a country with stricter corporate governance regulation, as the induced poor investor protection by the bidder may lessen the quality of corporate governance of the target. This could reduce the value of the target assets in the hands of the bidder. However, there is an alternative hypothesis: bidders can abide by the stricter regulation that the target is subject to. We call this the *bootstrapping hypothesis*: bidders voluntarily bootstrap their corporate governance regulation to a higher level.¹ As such, firms can contract privately on the

¹ One could somehow compare this to the bonding hypothesis: some firms seek a cross-listing on an exchange with stricter investor protection/listing requirements. This allows these firms to commit credibly to protect the shareholders' interests (see

optimal level of investor protection.² If the bidder shareholders intend to pursue such bootstrapping to a higher level of corporate governance, the value of the merged firm may actually increase which will also be reflected in the bidder share price at the takeover announcement. Bootstrapping may occur in both full and partial acquisitions, but the valuation effect may be stronger in partial takeovers whereby a stake of less than 100% of the voting rights is acquired and the target still remains listed on its national stock exchange.³ The bootstrapping valuation effect may also be stronger in takeovers with all-equity offers or mixed bids as (some of) the target shareholders will then remain involved with the merged company and may actively resist managerial actions reflecting a reduced shareholder orientation (Starks and Wei, 2005).

International law prescribes that the *positive spillover by law* effect is to take place in a full takeover, which leads to a change in the target firm's nationality. Nonetheless, partial takeovers may also lead to a similar spillover effect, which we call the *spillover by control* hypothesis. Although the target firm is not fully absorbed by the bidder in a partial acquisition, the bidder may still impose its own corporate governance standards on the target, provided that the bidder standards are stricter than the target's. In contrast, if the bidder standards are less strict than the target's, the bidder has to comply (locally) with the target corporate governance law and the listing regulations (in case the target remains listed on a national stock exchange).

The main conclusion from our empirical analysis is that the *positive spillover by law hypothesis* is supported whereas the *negative spillover by law hypothesis* is not. The bidder and target takeover announcement returns are positive when the former's governance standards are stricter than the latter's. This implies that the stricter governance imposed on the target is expected to lead to value creation, possibly to an increased focus on shareholder value and the reduction in managerial private benefits of control. In contrast, when the bidder corporate governance standards are less strict than the target's, neither the bidder nor the target returns are lower. While this evidence goes against the negative spillover by law hypothesis, it does not contradict our *bootstrapping hypothesis*: it seems that poor-governance bidders bootstrap to the better-governance regime of the target, experiencing a share price increase. Importantly, the effect is only valid for partial acquisitions or, in other words, in deals which still involve some of the target shareholders (who did not sell out) and in which the target firm remains listed on the stock exchange in the country of the target.

The *spillover by control hypothesis* holds when the differences between the bidder and target governance regulation have a positive effect on anticipated gains of partial takeovers. The spillover effect from a bidder from a country with stronger shareholder protection on the target explains part of the value creation expected at the announcement of the partial takeover. The potential benefits from the improvement of the target corporate governance are shared by both the bidding and target firms' shareholders: both the bidder and target returns

e.g. Coffee, 1999 and Doidge et al., 2006). Such bonding is credible to the market as it involves high costs (complying to different accounting standards, listing regulation, governance standards) and comprises a legal obligation.

² A counterexample whereby a firm moves towards less shareholder-orientation is given by Bris and Cabolis (2007b): they show that Aventis, the firm arising from the merger of German Hoechst and French Rhone-Poulenc, borrowed from the corporate governance regimes of both firms, resulting in a more protected company than with the French default legal system of investor protection.

³ In the case of cross-border mergers, a bidder is entitled to subject a foreign-owned subsidiary to its local corporate law, irrespective of the domicile of the subsidiary (Bris and Cabolis, 2007a, citing Muchlinski, 1997). When less than 100% of the shares of the target are acquired by the foreign firm, the target firm remains operating under the law of its home country. Furthermore, the extraterritoriality principle in international law states that a state can assert jurisdiction over its nationals abroad. However, the extraterritoriality principle does not apply when a foreign firm acquires 100% of the company's shares.

increase. Our results are robust with respect to several model specifications that control for potential endogeneity problems.

Our results also support the view that national corporate governance regulation has a significant impact on the flow of cross-border takeovers. In particular, we find that firms from countries with weak corporate governance regulation are more likely to invest abroad rather than domestically, confirming earlier results by Doidge et al. (2007) and Benos and Weisbach (2004). We also find that bidders are more likely to acquire firms abroad if minority shareholder protection in their home country is strong. This result is in line with the argument by Goergen et al. (2005) that strong protection of minority shareholders makes corporate takeovers costly and hence forces companies to look for potential M&A targets abroad, in countries with weaker (minority) shareholder protection. Strong creditor protection in the home country also has a positive effect on the international takeover activity. This may result from the relation between creditor protection and a firm's access to debt financing (La Porta et al., 1998). Martynova and Renneboog (2007a) show that debt financing is indeed frequently used in cross-border M&As. Therefore, cross-border M&As are more likely to be made by bidders that have access to less expensive debt capital which prevails in countries with strong protection of creditor rights.

Finally, most of our other results on the effect of the relative transaction size, free cash flow, hostility, means of payment, diversification strategies, stock-price runup, differences in economic development, geographical closeness and language relatedness of the bidder and target, the level of corruption, and other characteristics are in line with the findings in the earlier literature.

This paper contributes to the literature in two ways.

First, we answer the question *how or through which channels cross-border mergers and acquisitions generate value*. Not just purely economic characteristics (of the bid, the target, and the bidder) but also the spillover of corporate governance standards between the bidder and the target explain part of the takeover premiums or the anticipated value (abnormal announcement returns). The impact of national corporate governance standards on the shareholder wealth effect in cross-border M&As has been previously studied in Bris and Cabolis (2007a) and Bris, Brisley and Cabolis (2008), Starks and Wei (2005), Kuipers et al. (2003), and Rossi and Volpin (2004). These five studies investigate the valuation effects of corporate governance from different perspectives and arrive at different results. Our paper is closest to the study by Bris and Cabolis (2007a) and Bris et al. (2008). The authors show that takeover premiums in cross-border deals increase with the difference in shareholder protection and the quality of accounting standards between the bidder and the target. They report that this effect is significant only in M&As when the target changes its nationality (full acquisitions). In contrast, our results reveal that the improvement in the target shareholder protection has a positive effect on takeover synergy irrespective of the type of takeover. Our results thus reveal that governance-related takeover synergies may not only arise from a *spillover by law* effect but also from *spillover by control* and *bootstrapping* effects.

The second contribution is that our analysis is based on new corporate governance indices. Our *country-level indices* are more elaborate than the indices developed by La Porta, Lopez-de-Silanes, Shleifer and Vishny (henceforth LLSV) and employed in the studies mentioned above. With the help of 150 corporate lawyers from 32 European countries, we have created a corporate governance database that comprises the main changes in corporate governance regulation in all European countries over the last 15 years. For each country, we quantify corporate law,

stock exchange regulation and corporate practices⁴, and measure their effectiveness in mitigating the conflicts of interest between the various corporate constituencies: management, majority and minority shareholders, and creditors. Our indices reveal that corporate governance regulation has been substantially reformed in virtually every European country since the early 1990s. Therefore, it is important to note that, in contrast to previous studies, all legal indices employed in this paper are time-varying and reflect changes in the legal environment.

There are several reasons why we focus on country regulation (rather than firm-level regulation). First, it is virtually impossible to code the content of corporate charters, to collect the amendments and to gather all major shareholder decisions of AGMs for such a large group of firms. These firms are situated in a heterogeneous group of countries with varying degrees of transparency and disclosure problems. Second, empirical evidence reveals a high correlation between corporate governance at the firm-level and at the country-level. Doidge, Karolyi and Stulz (2007) analyse the variation in a cross-section of firm-level corporate governance indices and conclude that most of the variation can be explained by country characteristics. They argue that countries matter so much because they influence the costs that firms incur to bond themselves to good governance and the benefits they receive from doing so. The authors also state that firms with concentrated ownership (de facto the vast majority of listed firms in Continental Europe) invest less in firm-level governance mechanisms, as the incentives of the major shareholders to expropriate are lower.

The remainder of the paper is organized as follows. Section II describes the data sources and sample design. Section III presents the empirical results while section IV concludes.

II. Sample Description

We select our initial sample of European acquisitions undertaken during the fifth takeover wave (1993-2001) from the Mergers and Acquisitions Database of the Securities Data Company (SDC).⁵ The SDC data is filtered down to intra-European cross-border takeovers, whereby both the acquirer and the target are from countries within Continental Europe and the UK. Our sample also includes deals involving firms from Central and Eastern Europe (including Russia). For reasons of comparison, we also collect information on domestic mergers and acquisitions in Continental Europe and the UK. We retain only those cross-border and domestic M&As that satisfy the following requirements:

- (i) The transaction involves a change in control⁶;

⁴ We also capture generally accepted corporate practices in as far as they are stricter than the regulation. For instance, non-voting shares are legal in the UK, but are not used by any firm listed on the London Stock Exchange. Therefore, we consider the UK as a country where the one-share-one-vote is upheld.

⁵ The quality of the SDC data is verified by comparing its information on the announcement date, the company's country of origin, the transaction value, payment structure, share of control acquired, bid completion status, and the target's attitude towards the bid with information from the news announcements stored in LexisNexis, the Financial Times, and Factiva. We uncovered inconsistencies in one or more records in 36% of the observations of the SDC database, which we subsequently corrected.

⁶ We require either that the transaction leads to a combination of the firms or that the acquirer who held less than 50% of the target's stock prior to the transaction acquires majority control.

- (ii) The shares of the bidder or the target firm (or of both) are traded on a Continental European or UK stock exchange;
- (iii) Both parties participating in the M&A transaction are independent corporations;⁷
- (iv) Neither the bidder nor the target is a financial institution (bank, unit trust, mutual fund or pension fund);
- (v) The period between two consecutive bids by the same acquirer is at least 300 trading days;⁸
- (vi) Financial and accounting data for at least one of the participants of the transaction are available in DataStream or in the Amadeus, Fame or Reach databases.

Our final sample of domestic and cross-border M&A announcements consists of 2,419 deals involving firms from 29 European countries. Cross-border M&As represent one-third of the sample (737 deals). Table 1 reports the sample distribution by country for the bidding and target firms. The most active cross-border acquirers are British, German, and French firms, which cumulatively account for 49% of all cross-border M&As. Firms from the UK, Germany and France are also most frequently the targets in cross-border acquisitions (37% of all cross-border M&As). Not to be underestimated is the cross-border M&A activity involving Scandinavian firms, which represents 23% and 17% of all cross-border acquirers and targets, respectively.

The domestic M&A activity by UK, German, French, and Scandinavian firms substantially exceeds their involvement in cross-border takeovers. In contrast, companies from the Benelux countries, Austria, and Ireland are more frequently involved in cross-border rather than in domestic M&As. Relative to the other major economies in Continental Europe, Southern Europe (Greece, Italy, Portugal, and Spain) has a remarkably low domestic and cross-border takeover activity. In cross-border M&As, Southern European firms are more frequently targets (of German, British and French bidders) than bidders. Another interesting observation relates to Eastern and Central European countries that have joined the European Union since 2004. Many firms from these new member states are acquired by West-European bidders, predominantly from neighbouring countries (Scandinavia, Austria, and Germany). In contrast, the participation of Central European firms as bidders in cross-border acquisitions is small, as is the domestic takeover market in that region.

[Insert Table 1 about here]

III. Empirical Results

A. Variable construction

The next subsections discuss the measurement of four categories of variables: (i) the bidder and target announcement returns (the dependent variables), (ii) corporate governance indices, (iii) measures of corporate governance spillover effects (our key explanatory variables), and (iv) the bidder-, target-, and deal-specific characteristics (our control variables). The definitions of variables and data sources are summarized in Appendix I.

⁷ The absorption of subsidiaries is not included, nor are divestitures and management buyouts.

⁸ The reason for this restriction is that we want to avoid contamination of the windows used to estimate the systematic risk.

A1. The Bidder and Target Announcement Returns

We measure the short-term wealth effects at the takeover announcement using the event study methodology. For each bidding and target firm, we compute the daily abnormal returns realized over the period starting 1 day prior and ending 1 day subsequent to the day of the public takeover announcement.⁹ The takeover announcement wealth effect is the sum of these daily abnormal returns. We also consider longer event windows, such as [-5, +5] and [-60, +60]. Daily abnormal returns are the difference between realized and market model benchmark returns. Our market model is based on the MSCI-Europe index and its parameters are estimated over 240 days, starting 300 days prior to the acquisition announcement.¹⁰ To test the significance of the estimated abnormal returns, we use both parametric and non-parametric tests as discussed by Brown and Warner (1985) and Corrado (1989), respectively.

As panel A of Table 2 shows, the three-day cumulative average abnormal return (CAAR) is 0.83% and 0.47% for the subsamples of domestic and cross-border bidders respectively. Both figures are significantly different from zero at the 5% level and the difference in the CAARs between the two subsamples is also statistically significant.¹¹ This result confirms findings of recent empirical studies that cross-border bidders somewhat underperform their domestic peers (see e.g. Moeller and Schlingemann, 2004; Denis et al., 2002). In contrast, targets in cross-border takeovers experience significantly higher returns than targets in domestic bids. For the three-day window centred on the bid announcement, cross-border target firms accumulate abnormal returns of 12.6 % compared to 11.5% for domestic targets. Goergen and Renneboog (2004) document similar differences for large intra-European M&As.

To investigate the influence of the legal environment on the takeover wealth effect, we compare the CAARs for sub-samples of bidders (targets) across countries of different legal origins. Countries from the former communist block are classified according to their (staged) accession to the European Union. Panel B of Table 2 reveals the systematic differences in the bidder and target CAARs by legal origin. Whereas bidders of German or Scandinavian legal origin earn significant positive returns in cross-border M&As, their counterparts of English or French legal origin earn more modest or even insignificant returns, and bidders from recent EU Accession countries incur negative returns. For the target firms, we observe that companies of English or Scandinavian legal origin yield the highest announcement returns, which are almost 2.5 times higher than the returns of target companies of French or German legal origin. Remarkably, the CAARs to the target firms from the former communist block countries are not significantly different from zero.

[Insert Table 2 about here]

⁹ The event day is either the day of the announcement or the first trading day following the announcement in case the announcement is made on a non-trading day.

¹⁰ Our estimates of the abnormal returns are robust with respect to the geographical scope of the market index (local, European-wide, and worldwide index) and the estimation model of the benchmark returns (the estimated beta adjusted for mean-reversion (Blume, 1979), and non-synchronous trading (Dimson, 1979)). Changing the market index or the estimation model does not materially change any of the results in the remainder of the paper.

¹¹ We (conservatively) only report the non-parametric tests. The significance levels of the parametric tests corroborate the non-parametric ones but the former lead to higher levels of significance.

A2. Corporate Governance Standards Indices

To measure the quality of corporate governance standards in the bidder and target firms' countries we construct a number of indices¹². With the help of 150 corporate lawyers from 32 European countries (as reported in Appendix II), we create a corporate governance database comprising the main aspects of and changes in corporate governance regulation in all European countries (including Central and Eastern Europe) since 1990. For each country, we quantify the regulation mitigating the conflicts of interests between the main corporate constituencies: management versus shareholders, majority versus minority shareholders, and creditors versus shareholders. We construct the following three indices (see also Martynova and Renneboog, 2007b). All these indices are rescaled to take values within the [0, 10] interval.

(i) The *shareholder rights* index is based on shareholders' ability to curb managerial opportunistic behaviour. The index measures the degree of *shareholder orientation* of a national regulation. The index increases with the number and quality of legal provisions that provide shareholders with effective power to appoint and dismiss the board of directors and to control most of the important corporate decisions on, for instance, equity issues or anti-takeover measures. We also take into account the regulatory provisions that ensure that the board of directors acts as an independent body operating on behalf of all shareholders and monitors top management. Provisions that address the quality of information on the management and the frequency of disclosure of accounting information are also considered. A higher index score represents a higher likelihood that management acts in the interest of shareholders and hence reflects better corporate governance standards with respect to shareholder protection.

(ii) The *minority shareholder protection* index hinges on the regulatory provisions that increase the relative power of the minority shareholders in the presence of strong majority shareholders. In a firm with concentrated control, it is possible that the dominant shareholder extracts private benefits of control by influencing managerial decisions for his own benefit (see e.g. Durnev and Kim, 2005). This may lead to the expropriation of minority shareholders' rights. We quantify the regulatory provisions related to minority shareholder protection (e.g. board representation, minority claims, extraordinary general meetings, blocking minorities), the one-share-one-vote principle (dual class shares, voting caps, break-through rule, equal treatment principle), ownership transparency, and the relative decision power in case of a takeover threat. A higher index score signifies that minority shareholders' interests are better protected.

The shareholder rights and minority shareholder protection indices are positively correlated because they both reflect to some degree the underlying quality of shareholder protection in a country. However, they are based on different institutional characteristics.

(iii) The *creditors rights* index hinges on the regulatory provisions that allow creditors to force repayment more easily, to take possession of the collateral, or even to gain control over the firm in case of financial distress. In creating this creditor rights index, we closely follow the approach of LLSV and investigate the regulation related to the violation of debt covenants (deviations from the debtor priority ranking in case of bankruptcy), the possibility

¹² These indices overcome some of the limitations of the LLSV indices. First, our indices are based on a broader definition of corporate governance regulation than that used by LLSV. Second, our indices are dynamic: they capture the many regulatory reforms on a yearly basis since 1990. Furthermore, we use functional approach to construct the indices, which differs from the comparative approach employed by LLSV (1998). For a detailed discussion of the limitations and advantages of our indices see Martynova and Renneboog (2007b).

for debtors to impose restrictions on borrowers (e.g. limitations on filing for reorganization/liquidation), and the creditors rights in financially distressed firms (e.g., automatic stay on assets). The index also captures the difference between creditor-oriented and debtor-oriented bankruptcy codes: we augment the creditor rights index for a country with a pure liquidation code by one, while leaving the index unchanged for a country with a debtor-oriented code.¹³ The reason is that a bankruptcy code that facilitates reorganization focuses on corporate survival, usually at the expense of the (more senior) creditors. A higher index score reflects stronger creditor rights, i.e. higher corporate governance standards with respect to creditor protection.

The constituents of each index and their coding are given in Appendix III.

It is important to note that a system with strong legal enforcement may substitute for weaker regulation as well-functioning courts can effectively resolve disputes between corporate constituencies (LLSV, 1998). Conversely, a law designed to uphold the rights of e.g. minority shareholders may be eroded in case the judiciary does not function effectively. To address these problems, we multiply the above indices by an index capturing the quality of law enforcement. We use the rule of law index developed by the World Bank, which we rescale to take values within the [0, 1] interval. The *rule of law index* measures the extent to which agents have confidence in and abide by the rules of society, which include the effectiveness and predictability of the judiciary and the enforceability of contracts. A higher score of the index signifies that a national judicial system is more effective.

[Insert Table 3 about here]

Panel A of Table 3 reports the mean values of the corporate governance indices multiplied by the rule of law index. (Henceforth, when we refer to the corporate governance indices, we refer to the original indices multiplied by the rule of law index). The indices are reported by legal origin and for every fifth year over the period 1990-2005. The panel shows that in 1995 – the reference year of the LLSV indices – our shareholder rights protection index ranks countries in a similar order as it does the LLSV anti-director index. That is, countries of English legal origin have the highest corporate governance standards with respect to shareholder protection. They are followed by the countries of Scandinavian legal origin, and then by the countries of French and German legal origin. The panel also shows that there have been substantial changes in corporate governance standards in virtually every country in Europe over the past 15 years. The changes relate to all three dimensions of corporate governance standards addressed in this paper. However, in 2005, the countries of English legal origin still provide the highest quality of shareholder protection. Over time, shareholder rights and minority shareholder protection have increased throughout Continental Europe and the UK, whereas creditor protection has been reduced in Western Europe. In the mean time, many Continental European countries have improved their legal system and moved closer to the standards set by the English legal system.

Panel B of Table 3 shows the mean values of the corporate governance indices for the countries of bidding and target companies measured in the year of the acquisition. It shows that, in contrast to the targets in cross-border acquisitions, bidding firms are from countries with better legal protection of (minority) shareholders. This pattern is consistent with the evidence by Rossi and Volpin (2004): targets in cross-border acquisitions are typically from

¹³ Chapter 11 in the US is the prototype of a debtor-oriented code. In the 1990s, many bankruptcy codes have been reorganized and now frequently include two tracks: a debtor-oriented part (e.g. administration in the UK) and a pure liquidation code. We classify such bankruptcy codes as debtor-oriented.

countries with poorer standards of shareholder protection than the bidder. The difference in creditor rights between the bidder and target countries seems to have no impact on the flow of cross-border M&As.

The correlation matrix in Table 4 shows that the value for the target shareholder rights index is positively correlated with the bidder and target takeover returns. The value of the target minority shareholder protection index is also positively correlated with the target returns but is negatively correlated with the bidder returns. The table also reports the correlations between the indices and the main variables that are used in the regression models below.

[Insert Table 4 about here]

A3. Corporate Governance Spillover Effects

We measure the potential corporate governance spillover effect in cross-border mergers and acquisitions in two ways. First, we take the difference between the indices of the bidder and target countries (the differences-approach). This variable captures the scope of the potential improvement in corporate governance if the target firm with the lower governance standards were to adopt the higher standards of the bidder. The quality of corporate governance standards is measured by means of the three indices discussed above; i.e. we measure it with respect to the protection of shareholders, minority shareholders, and creditors (while taking in to account the quality of the judiciary). Table 4 shows that the shareholder-rights difference is positively correlated with the target takeover returns.

Second, we construct indicator variables capturing the direction of corporate governance spillover effects: from the bidder to the target and vice versa (the indicator-variable approach). The indicator variable for the spillover of better governance standards from the bidder to the target equals one if the bidder index is above the median index and the target index is below the median (the *positive spillover by law / spillover by control effect*), and is zero otherwise. The indicator variable for the spillover of better governance standards from the target to the bidder (the *bootstrapping effect*) equals one if the bidder index is below the median and the target index is above, and is zero otherwise. Alternatively, this variable may indicate the spillover of the bidder low governance standards to the target firm (the *negative spillover by law effect*), if its parameter estimate has the inverse sign. Overall, the indicator variables denote whether a bidding company is likely to improve or worsen its own governance and the governance in a target firm. It should be noted that the median value of each index is measured across all countries in a particular year and both the bidder and target indices are compared to the same median.

[Insert Table 5 here]

Table 5 partitions all M&As by the quality of corporate governance standards. It shows that the majority of cross-border bidders are from countries with superior standards of investor protection. More than 76% of all cross-border bidders are from countries with a shareholder rights index above the median (Panel A). This percentage is even higher (about 93%) when we consider minority shareholder protection (Panel B). Panel C shows that the sample is evenly split between bidders from countries with below- and above-median creditor rights. A similar picture arises for target companies: they tend to be from countries with above-median investor protection. These patterns stand in sharp contrast to those documented by Bris and Cabolis (2007a) who find that the majority of bidders and targets are from countries with below-median investor protection. This difference may be due to the

sample composition. In contrast to Bris and Cabolis (2007a), our sample excludes M&As that involve firms from outside Continental Europe and the UK. Another rationale for the observed differences is that our classification is based on our dynamic corporate governance indices whereas Bris and Cabolis (2007a) use the static LLSV indices.

Table 5 shows that bidders from legal systems with below-median investor protection mainly acquire target firms from systems with above-median legal protection. Similarly, target firms from legal systems with below average investor protection tend to sell their shares to foreign acquirers coming from systems with superior legal protection.

A4. Other Determinants of the Bidder and Target Returns

We consider three categories of additional factors that may influence the bidder and target returns: the characteristics of the bidder and target firms, the features of the takeover deal, and the characteristics of the bidder and target countries.

Bidder and Target Characteristics:

The bidder characteristics that we control for are firm size, Q-ratio, leverage, cash flow, and pre-announcement stock price runup. The size of the bidder is included as a proxy for managerial hubris (Roll, 1986), as larger acquirers tend to overpay in takeovers (Moeller et al, 2004). Therefore, the bidder returns are expected to decrease with firm size. The bidder Q-ratio is a proxy for the firm's growth potential and quality of internal corporate governance. Lang, Stulz, and Walkling (1989) and Servaes (1991) document higher returns for bidders with higher Q-ratios. In contrast, Moeller et al. (2004) find a negative relationship between bidder returns and Q-ratio for their sample of M&As from the 1990s. Therefore, the expected effect of the bidder Q-ratio on returns is ambiguous. We also include cash flow and leverage to control for acquisitions driven by free cash flow motives (Jensen, 1986). Bidders with high cash flow and low leverage are more likely to make value-destroying acquisitions. Finally, we include the bidder pre-announcement stock price runup to control for the bidder's prior stock performance.

The target characteristics that we include as control variables are leverage and cash flow, as a bidder is likely to pay higher premiums for targets with lower leverage and higher cash flows. For the analysis of (public) target CARs, we also include the target Q-ratio and pre-announcement stock price run-up to control for its growth opportunities and prior stock performance respectively.

Deal characteristics:

Both the theoretical and empirical M&A literature have shown that the following transaction attributes affect the bidder and target takeover returns: the form of and the attitude towards the bid (opposed bids, unopposed tender offers, friendly M&As), the legal status of the target firm (listed versus privately-held), the industry relatedness of the bidding and target firms (a focus versus diversification strategy of the bidder), the type of acquisition (full versus partial acquisition), the means of payment (all-cash, all-equity, mixed offer), and the relative

deal size.¹⁴ It is argued that the market interprets all these pieces of information as a signal of the quality of the bidding and target firms and of the potential value creation in the takeover, which triggers share price adjustments. Therefore, to capture the effect of this signal we also control for the above deal characteristics in our models.

B. Controlling for the Selection Bias

We recognize that a decision to participate in a cross-border acquisition is an endogenous choice made by the bidding and target firms and these endogeneity issues may affect the conclusions of our analysis. In particular, Rossi and Volpin (2004) find that bidders and targets from countries with high shareholder protection are more likely to be involved in domestic rather than cross-border M&As. Therefore, we expect that a cross-border acquisition involving a bidder or a target from a country with high shareholder protection will occur only if the takeover synergies are sufficiently high to overcome all additional costs arising from integrating with a foreign firm.¹⁵ This implies a positive relationship between the bidder and target shareholder protection indices and the announcement stock returns.

Therefore, to control for the sample-selection bias, we employ Heckman's (1976, 1979) procedure. By applying a Probit analysis to the sample of all European bidding firms involved in domestic and cross-border acquisitions, we estimate the probability that a firm will undertake a cross-border rather than a domestic acquisition. The resulting parameters are used to compute Heckman's λ (Mill's ratio) for each bidding firm in our sample. We subsequently include Heckman's λ as an additional regressor into the regressions on the bidder returns. Similarly, we estimate the probability that a target firm is involved in a cross-border rather than domestic acquisition by computing Heckman's λ and including it into the target returns' regressions. Although the bidder and target selection equations seem very similar, they refer to different flows of foreign direct investments. The bidder equations estimate the determinants of the investment outflow from the country, whereas the target equations estimate the determinants of the investment inflow to the country.

The explanatory variables of the two selection equations (presented in Table 6) are based on previous studies on the determinants of foreign direct investments and international financial integration (see e.g. Pagano et al., 2002; Sarkissian and Schill, 2004; Claessens and Schmukler, 2007). First, we include the characteristics of the bidding/target firms (size, leverage, cash flow, and Q-ratio) and the non-negotiated features of the intended takeover (public/private target, industry focus/diversification, the period within the takeover wave). Second, we also include macro variables such as GDP growth, income per capita, and the level of corruption in the bidder/target country. We expect bidding firms to initiate M&As abroad (rather than domestically) when their home countries offer a poor investment environment, which is proxied by low economic growth and high levels of corruption. An underdeveloped M&A market resulting from various obstacles such as takeover-unfriendly regulation may be another reason that motivates firms to acquire foreign targets. Therefore, we also include a proxy variable for the scope of domestic M&A activity in the country. Finally, the impact of the regulatory environment on the decision to acquire abroad is captured by our corporate governance indices.

¹⁴ For an overview of the evidence on the wealth effect of M&As and its determinants, see Jensen and Ruback (1983), Jarrell et al. (1988), Agrawal and Jaffe (2000), Bruner (2003), and Martynova and Renneboog (2007c).

¹⁵ For the discussion of additional costs associated with cross-border takeovers see e.g. Denis et al. (2002) and Moeller and Schlingemann (2004).

The estimates of the selection equations of the bidding and target firms reveal interesting results with respect to the impact of the regulatory environment on the flow of cross-border M&A activity (Table 6). In particular, a bidding firm is more likely to make a cross-border acquisition if it is from a country with low standards of shareholder rights. The result supports the view that firms from countries with weak corporate governance regulation are more likely to invest abroad rather than domestically (Doidge et al., 2007, Benos and Weisbach, 2004). We also find that bidders are more likely to acquire firms abroad if minority shareholder protection in their home country is strong. This result is in line with Goergen et al. (2005) who argue that strong protection of minority shareholders makes corporate takeovers very costly and hence forces companies to look for potential M&A targets in countries with weaker minority shareholder protection. Strong creditor protection in the home country also has a positive effect on the international acquisition activity. This may follow from the positive relationship between creditor protection and a firm's access to debt financing (LaPorta et al, 1998). Martynova and Renneboog (2007a) show that debt financing is frequently used in cross-border M&As. Therefore, cross-border M&As are more likely to be made by bidders who have access to inexpensive debt capital which prevails in countries with strong creditor rights.

Unsurprisingly, the selection equation for the target firms shows that a target is more likely to sell its shares to a foreign bidder if the standards of shareholder protection in the target country are low and the standards of creditor protection are high.

[Insert Table 6 about here]

C. Regression Results

C1. The Bidder Returns

The Impact of Corporate Governance Regulation on the Bidder Returns

We start our analysis with the bidder returns regressions that include the bidder and target corporate governance indices in levels, while controlling for the fact that making a cross-border acquisition is an endogenous decision (selection bias problem). Model 1 of Table 7 shows that the effect of the bidder and target national governance standards on the bidder returns is insignificant. The coefficients remain insignificant in Model 2 after controlling for growth potential, leverage, share price run-up, means of payment and many other characteristics of the deal, the target, the bidder and the countries of the bidder and target. We also fail to find any significant coefficients when we re-estimate this model including one of the corporate governance indices at the time (see Models 4-6). Overall, the evidence suggests that, apart from its impact on the decision to acquire a firm abroad (see section B), corporate governance regulation has no significant effect on the takeover returns to the bidding firm's shareholders.

Most of our results with respect to the control variables are consistent with previous empirical findings (see e.g. Moeller et al., 2004; Bris and Cabolis, 2007a; Starks and Wei, 2005). Specifically, we observe that (i) the bidder size has a significantly negative effect on the bidder returns suggesting that large bidders are more likely to make poor takeover decisions; (ii) the bidder Q-ratio has no significant effect on the bidder returns; (iii) the proxies

for free cash flow - the bidder cash flow and leverage - have the expected (but insignificant) impact on the bidder returns (respectively, a negative and positive effect) which indicates that there is little evidence that cross-border acquisitions occur as a result of empire building; (iv) the bidder returns are significantly lower for hostile takeovers suggesting that the bidder shareholder fear overbidding in case of opposition by the target firm; (v) the returns are also lower for acquisitions involving equity payments (signalling overvaluation of the bidder shares), for public targets, for diversifying mergers (leading to a diversification discount), and for full takeovers (acquisition of 100% of the voting shares); (vi) the bidder pre-announcement stock-price run-up has a significantly positive effect on the bidder announcement returns; (vii) the bidder returns are also higher when the bidder and target countries are neighbours or belong to the same language group, as both may enhance transparency or induce trust;¹⁶ (viii) the differences in economic development between the bidder and target countries is not correlated to the bidder returns; and (ix) the level of corruption in the target country has an insignificant effect on the bidder returns.

All estimated models reveal that Heckman's λ is significant confirming that ignoring the selection bias may induce estimation problems. To rule out any further possibility that our results are driven by the endogeneity of the control variables, we also re-estimate model 7 excluding the corporate governance indices. Our results are upheld.

[Insert Table 7 about here]

The Impact of Corporate Governance Spillover Effects on the Bidder Returns

Whereas Table 7 concentrates on the impact of corporate governance *regulation* on the bidder returns in cross-border acquisitions, we now switch to the question whether potential corporate governance *spillover* is reflected in the bidder returns. We do not report the parameter estimates of the control variables in Table 8, as they are similar to those reported in Table 7. As in previous sections, we correct the models of Table 8 for sample-selection biases. We now primarily focus on the potential improvement (or deterioration) of target firm corporate governance standards as a result of the takeover and its effect on the bidder returns.

In Panel A of Table 8, we measure the scope for potential corporate governance spillover by the differences between the bidder and target corporate governance indices. In line with Bris and Cabolis (2007a), the parameter coefficient shows that the shareholder-rights difference has a positive, albeit insignificant, effect on the bidder CARs. A significantly positive coefficient would be consistent with the *spillover by law hypothesis* which states that the improvement in the corporate governance of the target firm via the transfer of the bidder governance standards is a source of synergistic gains in corporate takeovers.

The insignificance of the coefficients may be due to the fact that not only bidding companies from countries with superior corporate governance standards may benefit from cross-border M&As but also bidders from countries with low investor protection. These may bootstrap their corporate governance standards to a higher level, namely that of the target firm. To disentangle the different directions of the spillover effect, we apply an indicator-variable approach. Panel B of Table 8 reports the results of the regressions that include an indicator variable capturing M&As involving a bidder with corporate governance standards above the median and a target with standards below

¹⁶ This result is interesting as it suggests that acquisitions of companies belonging to similar cultures lead to a higher value creation. The evidence is in spirit of Guiso, Sapienza and Zingales (2006 and 2007) who show that international transactions are more common between firms from countries that display a higher level of cultural similarities.

the median. We also include an indicator variable that captures the opposite case: a bidder with low standards and a target with high investor protection. While the first variable is a proxy for the improvement of the target firms' corporate governance (the *positive spillover by law and the spillover by control hypotheses*), the second variable is a proxy for the improvement of the bidder corporate governance (the *bootstrapping effect*) or for the dilution of the governance of the target if the bidder imposes its lower standards (the *negative spillover by law hypothesis*).

The regression results from models 1-4 (panel B) show that the coefficient on the indicator variable capturing the improvement in the target shareholder rights is positive and statistically significant (at the 1% level). This is consistent with the *positive spillover by law* (and *spillover by control*) predictions that acquisitions of firms with poor shareholder orientation by firms with a strong shareholder orientation generate abnormal returns for the bidder through the imposition of better corporate governance on the target.

Model 1 also shows that the bidder returns are positive and significant when the target has a stronger shareholder orientation than the bidder. The fact that the bidder shareholders react positively to this type of deal is congruent with the fact that the bidding firm may adopt a higher level of shareholder orientation on a voluntary basis.¹⁷ This increased shareholder orientation is then anticipated by the bidder shareholders, as reflected in the announcement returns. However, the significance of this *bootstrapping* effect disappears after taking into account the characteristics of the target, the bidder, the deal and countries of the bidder and target.

[Insert Table 8 about here]

C2. The Target Returns

The Impact of Corporate Governance Regulation on the Target Returns

We first focus on whether corporate governance standards in the bidder and target countries have a significant effect on the target returns (after controlling for the sample-selection bias described in section B). Table 9 shows that the target returns strongly increase with the quality of shareholder protection in the target country. The coefficient on the target shareholder rights index is positive and statistically significant in all model specifications. The evidence suggests that target companies from countries with better shareholder protection are able to extract higher premiums from the bidding firms, which is also consistent with Rossi and Volpin (2004) but not with Bris and Cabolis (2007a).

When we focus on minority shareholder protection by excluding shareholder and creditor protection indices (model 5), minority shareholder protection in the target country is still positively associated with the target returns. This implies that powerful minority shareholders are able to extract an additional premium in the deal. Still, this finding is not corroborated when other different measures of investor protection are included in the model.

The degree of shareholder orientation in the bidder country has a positive effect on the target returns but only in model 1 of Table 9. This lack of a consistent significant impact of the bidder shareholder protection on the target returns is also documented by Rossi and Volpin (2004). They conclude that bidders from countries with better shareholder protection do not pay more for cross-border M&As than bidders from other countries. Overall, our

¹⁷ This result does not support the *negative spillover by law hypothesis* as under this hypothesis we would expect negative or at best insignificant bidder returns.

evidence suggests that the corporate governance regime in the target (but not the bidder) country positively affects the target shareholders returns.

As to the control variables, most of our findings are in line with those of other empirical studies on cross-border M&As (see, e.g. Harris and Ravenscraft, 1991; Dewenter, 1995). In particular, we observe that target returns are significantly higher in hostile takeovers and in full takeovers (resulting in the transfer of 100% of control), and are significantly lower when equity is used as a means of payment and when corruption in the target country is high.

[Insert Table 9 about here]

The Impact of Corporate Governance Spillover Effects on the Target Returns

Whereas Table 9 examines the impact of the national *regulation* on the target returns, we now analyse the impact of corporate governance *spillover*. Panel A of Table 10 reports that the target returns increase with the scope of potential shareholder protection spillover as measured by the differences between the bidder and target shareholder rights indices. When a bidding firm is from a country with higher shareholder protection than the target, the bidder (better) corporate governance standard will be imposed - by law in case of a full acquisition - on the target firm (the *positive spillover by law effect*) which leads to significantly higher target announcement returns. Similarly, in case of a partial acquisition, the bidder firm may impose its better shareholder protection standards on the target (the *spillover by control effect*) which leads to higher target shareholder returns. This implies that part of the synergies in cross-border acquisitions result from corporate governance improvements at the target. As the target shareholders anticipate this, they are able to claim part of the expected value improvement given that they are sellers in a strong bargaining position.

Moreover, when we differentiate between the cases where the bidder is subject to stronger (weaker) shareholder protection than the target (Panel B of Table 10), we find further confirmation of our result. Target returns increase when there is a positive spillover effect from the bidder to the target, i.e. when the bidder is from a country with a stronger shareholder orientation. These results yield support to our *positive spillover by law* and *spillover by control hypotheses*. Interestingly, the evidence does not support the *negative spillover by law hypothesis*: in takeovers by bidders from countries with poorer standards, the target returns are not significantly lower.

[Insert Table 10 about here]

D. Additional Analyses

D1. Does a change in the target nationality matter?

Bris and Cabolis (2007a) emphasize that target companies benefit from corporate governance spillovers only when the bidder acquires 100% of the target firm's shares, i.e. when the target firm de facto changes its nationality (*spillover by law hypothesis*). In case of a full acquisition, the target firm becomes a part of the bidding firm and hence will have to comply with the corporate governance regulation in the bidder country. To further test this hypothesis, we split our sample into full and partial acquisitions and we re-estimate the models from Tables 8

and 10. Table 11 shows that, irrespective of the type of the takeover (full or partial), bidding firms from countries with above-median shareholder protection experience significantly higher returns when they acquire target firms from countries with below-median shareholder protection. The evidence supports the *spillover by control hypothesis*: a well-governed bidding firm may improve the governance at the target firm in which it holds a majority stake such that a target firm's assets may be used more efficiently and create more shareholder value.

[Insert Table 11 about here]

Table 11 also unveils another interesting result: bidder returns are also higher in a partial acquisition involving a bidder from a country with below-median shareholder protection and a target from a country with above median shareholder protection. We interpret the positive coefficients as evidence consistent with the *bootstrapping hypothesis*: poorly governed firms acquire well-governed firms to credibly bootstrap themselves to better corporate governance standards. They bootstrap the quality of their corporate governance standards by (voluntary) adhering to the higher shareholder protection of the target firm. Given that the nationality of the target firm does not change, and that part of the equity of the target firm is still held by its (old) shareholders, the bidder may feel pressurized by the target minority shareholders or voluntarily decide to emulate the high corporate standards in the country of the target firm. This is reflected in the bidder returns. The positive target returns do not support the alternative hypothesis, *the negative spillover by law*.

We also perform the analysis of the target returns for the sub-samples of full and partial acquisitions in Table 12. We observe that partitioning our sample does not materially change our original results as the *positive spillover by law hypothesis* (full acquisitions) and the *spillover by control hypothesis* (partial acquisitions) are upheld. Thus, the target returns increase with the scope of the potential corporate-governance improvement irrespective of the degree of control change (full versus partial takeovers): acquisitions by bidders with stronger shareholder protection create more value than other types of acquisitions irrespective of the takeover type (full or partial).

[Insert Table 12 about here]

D2. The Bidder Returns and the Decision to Participate in a Takeover

In section B, we have discussed the potential endogeneity problem associated with the bidder and target decision to participate in cross-border M&As and have corrected for this by using Heckman's λ . While Heckman's λ allows us to control for the differences in cross-border and domestic acquisitions, this still ignores the fact that firms involved in a takeover (be it a domestic or cross-border one) may be different from firms that stayed clear of the takeover process. Factors such as financial constraints, growth opportunities, and share price performance (most of which are likely to be associated with corporate governance regulation) are likely to be important determinants of the bidder decision (not) to participate in a takeover. In other words, we may observe fewer takeovers by bidders from countries with weak corporate governance regulation (in terms of both (minority) shareholder and creditor protection). To control for this potential bias, we estimate yet another Heckman's λ . Applying a Probit analysis on

the sample of all European public firms (with data available in Amadeus and DataStream), we estimate the probability that a firm will undertake an acquisition.¹⁸

We perform two tests of the significance of this censoring problem. First, in the regression analysis of the bidder returns, we include the new Heckman's λ instead of the Heckman's λ estimated based on the equation that predicts a cross-border bidder. We find that the null hypothesis that the new Heckman's λ is insignificant cannot be rejected. This suggests that this type of sample-selection bias is not a significant problem in our sample and hence is not likely to cloud our estimation procedure. Second, we also re-estimate our regressions by including both the initial (cross-border takeover) Heckman's λ and the new one (related to the general M&A decision). We find that whereas the former is still significant, the new Heckman's λ remains insignificant.

D3. Means of payment effect of the offer

Starks and Wei (2005) hypothesize that the means of payment has a significant impact on the premiums paid in cross-border acquisitions. The argument is the following: when target shareholders accept equity in an all-equity or mixed offer, they remain involved in the merged firm and will demand additional compensation when the bidding firm is from a country with low shareholder protection. Thus, they require a higher premium to make up for the increased risk exposure due to the poor governance standards of the bidder (and hence the merged firm if the bidder does not voluntarily bootstrap its governance standards). Thus, the takeover premium should be decreasing in the quality of the bidder firm. Although our analyses include a variable capturing the means of payment, we re-estimate our models for sub-samples of all-equity payment/mixed offers, and of all-cash offers. Unlike Starks and Wei (2005), we find that our results regarding the spillover by law and the bootstrapping hypotheses do not depend on the means of payment.

D4. Further Sensitivity Tests

Our results are also robust to the following alternative specifications: (i) we measure abnormal returns over alternative event windows such as [-5, +5] and [-60, +60]; (ii) we employ industry-adjusted characteristics of bidding and target firms such as Q-ratio, leverage, size, and cash flow; (iii) we control for both bidder and target collateral (the fixed assets) as a proxy for financial takeover synergies and access to debt financing; (iv) we include year and industry fixed effects; (v) we control for the bidder toehold in the target company accumulated prior to the initial takeover bid; and (vi) we control for the stock market 'bubble' period (1998-99).

IV. Conclusion

We demonstrate that differences between the bidder and target corporate governance standards have an important impact on the returns from cross-border mergers and acquisitions. To proxy for the quality of corporate governance in the countries of the target and the bidder, we have developed with the help of 150 lawyers in 32 countries time-varying corporate governance indices capturing the changes in corporate governance regulation (soft

¹⁸ The regression results are not reported but available from the authors upon request.

law) over the past 15 years. The indices cover three dimensions of corporate governance: shareholder rights, minority shareholder rights, and creditor rights, while also embedding the efficiency of the judicial systems.

In a full takeover, the corporate governance standards of the bidder may be imposed on the target. When the bidder is from a country with stronger shareholder orientation, part of the total synergy value of the takeover may result from the fact that the stronger shareholder focus of the acquirer may generate additional returns due to better management of the target assets. We call this the *positive spillover by law hypothesis*. Given that this future value creation can be anticipated at the takeover announcement, the abnormal returns will reflect this potential. We expect that both the bidder and target firms share the returns from better corporate governance (stronger shareholder rights protection) and that their relative bargaining power determines how these returns are shared. Our empirical analysis corroborates the *positive spillover by law hypothesis*: the better the bidder corporate governance standards, the higher are the bidder and target takeover announcement returns.

While the *positive spillover by law effect* applies to full takeovers, we define the *spillover by control hypothesis* for partial takeovers (whereby a bidder acquires majority control but buys less than 100% of the voting rights). In partial takeovers, the bidder may impose its governance standards which may yield positive returns if it is from a country that protects shareholder rights better than the target. The bidder may voluntarily opt to apply such standards or may be pressurized by the minority shareholders of the target firm. Our results confirm the *spillover by control hypothesis*: both the bidder and target returns are higher in a partial acquisition if the bidder is subject to stronger shareholder rights protection than the target.

In full takeovers where the bidder is from a country that protects shareholders less well than the target country, the *negative spillover by law hypothesis* states that the target and bidder anticipated gains will be lower given that the poorer corporate governance regime will be imposed on the target. The alternative *bootstrapping hypothesis* is that poor-governance bidders voluntarily bootstrap to the better-governance regime of the target, which yields a share price increase. Our evidence supports the *bootstrapping hypothesis*: the bidder abnormal returns are higher when a bidder with weaker shareholder orientation acquires a target with better standards. Importantly, the effect is only valid for partial acquisitions or, in other words, for deals which still involve some of the target shareholders (who did not sell out) and for which the target firm remains listed on the stock exchange in the country of the target. The results are robust with respect to several model specifications that control for potential endogeneity problems. We conclude that an improvement in corporate governance at the target firm is an important source of gains in cross-border M&As.

Overall, our results suggest that cross-border takeovers between bidders and targets with dissimilar corporate governance standards can generate synergies which are partially related to corporate governance improvements (especially, those consisting of increases in shareholder rights).

V. Reference list

- Agrawal, A. and J. Jaffe, 2000, The post-merger performance puzzle, in A. Gregory and C. Cooper (eds.), *Advances in Mergers and Acquisitions*, volume 1, Amsterdam: JAI Press, 7–41
- Barca, F. and M. Becht (eds.) 2001, *The control of corporate Europe*, Oxford: Oxford University Press.
- Benos, E. and M. Weisbach, 2004, Private benefits and cross-listings in the United States, *Emerging Markets Review* 5(2), 217-240
- Blume, M., 1979, Betas and their Regression Tendencies: Some Further Evidence, *Journal of Finance* 34, 265-267
- Bris, A. and C. Cabolis, 2007a, The Value of Investor Protection: Evidence from Cross-Border Mergers, *Review of Financial Studies*, forthcoming.
- Bris, A. and C. Cabolis, 2007b, Corporate Governance Convergence Through Cross-border Mergers: the Case of Aventis, in *Corporate Governance and Regulatory Impact on Mergers and Acquisitions: Research and Analysis on Activity Worldwide Since 1990*, G. Gregoriou and L. Renneboog (eds.), Massachusetts: Elsevier, 71-101.
- Bris, A., N. Brisley and C. Cabolis, 2008, Adopting better corporate governance: Evidence from cross-border mergers, *Journal of Corporate Finance*, this issue.
- Brown, S.J., and J.B. Warner, 1985, Using Daily Stock Returns: The Case of Event Studies, *Journal of Financial Economics* 14 (1), 3-31.
- Brunner, R.F., 2003, Does M&A Pay?, Chapter 3 in R.F. Bruner, *Applied Merges and Acquisitions*, forthcoming
- Claessens, S., and S. Schmukler, 2007, International financial integration through equity markets: Which firms from which countries go global?, *Journal of International Money and Finance* 26 (5), 788-813.
- Coffee, J., 1999, The future as history: the prospects for global convergence in corporate governance and its implications, *Northwestern University Law Review* 93, 641–708.
- Corrado, C.J., 1989, A Nonparametric Test for Abnormal Security-Price Performance in Event Studies, *Journal of Financial Economics* 23 (2), 385-95
- Dewenter, K., 1995, Does the market react differently to domestic and foreign takeover announcements? Evidence from the US chemical and retail industries, *Journal of Financial Economics* 37, 421–441.
- Dimson, E., 1979, Risk measurement when shares are subject to infrequent trading, *Journal of Financial Economics* 7, 197–226.
- Doidge, C., A. Karolyi, and R. Stulz, 2007, Why do countries matter so much for corporate governance?, *Journal of Financial Economics* 86 (1), 1-39
- Doidge, C., A. Karolyi, K. Lins, D. Miller, and R. Stulz, 2006, Private Benefits of Control, Ownership, and the Cross-Listing Decision, *ECGI - Finance Working Paper No. 77/2005*
- Durnev, A., and H. Kim, 2005, To steal or not to steal: firm attributes, legal environment, and valuation, *Journal of Finance* 60, 1461–1493
- Gilson, R. J., 2000, Globalizing Corporate Governance: Convergence of Form or Function, *Stanford Law School working paper*, No. 192.
- Goergen, M., and L. Renneboog, 2004, Shareholder Wealth Effects of European Domestic and Cross-Border Takeover Bids, *European Financial Management* 10 (1), 9-45.
- Goergen, M., M. Martynova, and L. Renneboog, 2005, Corporate Governance Convergence: Evidence From Takeover Regulation Reforms, *Oxford Review of Economic Policy*, 21 (2), 243-268.
- Gompers P., J. Ishii, and A. Metrick, 2003, Corporate Governance And Equity Prices, *Quarterly Journal of Economics* 118(1), 107-155
- Guiso, L., P. Sapienza, and L. Zingales, 2006, Does culture affect economic outcomes?, *Journal of Economic Perspective*, forthcoming
- Guiso, L., P. Sapienza, and L. Zingales, 2007, Cultural biases in economic exchange, Mimeo
- Heckman, J., 1976, The common structure of statistical models of truncation, sample selection, and limited dependent variables and a sample estimator for such models, *Annals of Economic and Social Measurement* 5 (4), 475
- Heckman, J., 1979, Sample selection bias as a specification error, *Econometrica* 47 (1), 153-162
- Jarrell, G., J. Brickley, and J. Netter, 1988, The market for corporate control: the empirical evidence since 1980, *Journal of Economic Perspectives* 2, 49-68.

- Jensen, M, 1986, Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers, *American Economic Review* 76 (2), 323-329.
- Scholes, M., and M. Wolfson, 1990, The effects of changes in tax laws on corporate reorganization activity, *Journal of Business*, 141-164.
- Jensen, M., and R. Ruback, 1983, The market for corporate control: The scientific evidence, *Journal of Financial Economics* 11, 5-50.
- Kuipers, D., D. Miller, and A. Patel, 2003, The Legal Environment and Corporate Valuation: Evidence from Cross-Border Takeovers, *Texas Tech University Working Paper*
- La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny, 1998, Law and Finance, *Journal of Political Economy* 106, 1113-1155.
- Lang, L., R. Stulz, and R. Walkling, 1989, Managerial Performance, Tobin's Q, and the Gains from Successful Tender Offers, *Journal of Financial Economics* 24 (1), 137-154.
- Martynova M., and L. Renneboog, 2007a, What Determines Sources of Transaction Financing in Corporate Takeovers: Costs of Capital, Agency Costs, or Means of Payment?, *Mimeo*
- Martynova M., and L. Renneboog, 2007b, A Corporate Governance Index: Convergence and Diversity of National Corporate Governance Regulations, *Mimeo*
- Martynova M., and L. Renneboog, 2007c, A century of corporate takeovers: What Have We Learned and Where Do We Stand?, *Journal of Banking and Finance*, forthcoming.
- Moeller, S., and F. Schlingemann, 2005, Global Diversification and Bidder Gains: A Comparison Between Cross-border and Domestic Acquisitions, *Journal of Banking and Finance* 29, 533-564.
- Moeller, S., F. Schlingemann, and R. Stulz, 2004, Firm size and the gains from acquisitions, *Journal of Financial Economics* 73, 201-228.
- Muchlinski, P. (1997), *Multinational enterprises and the law*, Oxford: Blackwell Publishers.
- Pagano, M., A. Roell, and J. Zechner, 2002, The geography of equity listing: why do companies list abroad?, *Journal of Finance* 57 (6), 2651-2694.
- Rossi, S., and P. Volpin, 2004, Cross-Country Determinants of Mergers and Acquisitions, *Journal of Financial Economics* 74(2), 277-304.
- Sarkissian, S., and M. Schill, 2004, The overseas listing decision: new evidence of proximity preference, *Review of Financial Studies* 17 (3), 769-809
- Servaes, H. and M. Zenner, 1994, Taxes and the returns to foreign acquisitions in the United States, *Financial Management*, 42-56.
- Servaes, H., 1991, Tobin's Q and the Gains from Takeovers, *Journal of Finance* 46 (1), 409-419
- Starks and Wei, 2005, Cross-border mergers and differences in corporate governance, *Working paper University of Texas*.
- Wang, C., and F. Xie, 2007, Corporate Governance Transfer and Synergistic Gains from Mergers and Acquisitions, *Review of Financial Studies*, forthcoming

Appendix I: Variable Definition

<i>Variable</i>	<i>Definition</i>
# Domestic Acquisitions / # Listed Firms 1 year prior	Number of domestic acquisitions in the bidder/target country during the year prior to the deal announcement divided by the number of listed firms registered in this country. Source: computed from <i>SDC, DataStream</i>
(Bidder) Creditor Rights Improvement	Indicator equals one if the bidder creditor rights index is below the median index and the target index is above the median, zero otherwise. Source: Martynova and Renneboog (2007b) and Appendix II/III.
(Bidder) Minority Shareholder Protection Improvement	Indicator equals one if the bidder minority shareholder protection index is below the median index and the target index is above the median, zero otherwise. Source: Martynova and Renneboog (2007b) and Appendix II/III.
(Bidder) Shareholder Rights Improvement	Indicator equals one if the bidder shareholder rights index is below the median index and the target index is above the median, zero otherwise. Source: Martynova and Renneboog (2007b) and Appendix II/III.
(Target) Creditor Rights Improvement	Indicator equals one if the bidder creditor rights index is above the median index and the target index is below the median, zero otherwise. Source: Martynova and Renneboog (2007b) and Appendix II/III.
(Target) Minority Shareholder Protection Improvement	Indicator equals one if the bidder minority shareholder protection index is above the median index and the target index is below the median, zero otherwise. Source: Martynova and Renneboog (2007b) and Appendix II/III.
(Target) Shareholder Rights Improvement	Indicator equals one if the bidder shareholder rights index is above the median index and the target index is below the median, zero otherwise. Source: Martynova and Renneboog (2007b) and Appendix II/III.
1997-1999	Indicator equals one if the bid was initiated in the period between January 1, 1997 and December 31, 1999 (the climax of the 5 th takeover wave); and equals zero otherwise.
2000-2001	Indicator equals one if the bid was initiated in the period between January 1, 2000 and December 31, 2001 (the decline of the 5 th takeover wave); and equals zero otherwise.
Anti-corruption Index	The extent to which one can exercise public power for private gain It quantifies indicators ranging from the frequency of “additional payments to get things done” to the effects of corruption on the business environment. The index ranges between 0 and 5, with higher values corresponding to the lower level of corruption. <u>Source: The World Bank (http://www.worldbank.org/wbi/governance/)</u>
CFlow/TA	Ratio of total cash flow (including cash flow from operating, financial, and investment activities) to total assets, at the year-end prior to the deal announcement. Source: based on <i>SDC and Amadeus/Fame/Reach and DataStream</i> .
Common Border	Indicator equals one if the bidder and target are from countries that have a common border, and equals zero otherwise.
Creditor rights index	The value of the Creditor rights index (defined in Appendix III) multiplied by the Rule of Law index. Source: Martynova and Renneboog (2007b) and Appendix II/III.
Diff (Bidder-Target) Creditor rights index	Variable equals the difference between the bidder and the target Creditor rights indices. Source: Martynova and Renneboog (2007b) and Appendix II/III.
Diff (Bidder-Target) Minority shareholder protection index	The difference between the bidder and the target Minority shareholder protection indices. Source: Martynova and Renneboog (2007b) and Appendix II/III.
Diff (Bidder-Target) Shareholder rights index	The difference between the bidder and the target Shareholder rights indices. Source: Martynova and Renneboog (2007b) and Appendix II/III.
Diversification	Indicator equals one if the bidder and target operate in different industries (their primary 2-digit SIC codes are not equal), and equals zero otherwise. Source: based on <i>SDC and Amadeus/Fame/Reach</i>
Equity payment	Indicator equals one if the acquisition is fully paid with equity, and equals zero otherwise. Source: based on <i>SDC, LexisNexis, Factiva, and Financial Times</i>
Hostile bid	Indicator equals one if the initial takeover offer is met by a negative reaction by the management of the target firm or if a competing bid is made. Source: based on <i>SDC, LexisNexis, Factiva, and Financial Times</i>
Leverage	Ratio of total (long-term and short-term) debt to total assets at the year-end prior to the deal announcement. Source: based on <i>Amadeus/Fame/Reach and DataStream</i>
M&A of 100%	Indicator equals one if the bidder fully acquires the target and hence holds 100% of the share capital after the completion of the deal, and equals zero otherwise. Source: based on <i>SDC, LexisNexis, Factiva, and Financial Times</i>
Minority shareholder protection index	Variable that takes the value of the Minority shareholder protection index (defined in Appendix III) multiplied by the Rule of Law index. Source: Martynova and Renneboog (2007b) and Appendix II/III.
Public target	Indicator equals one if the target firm was a stand-alone firm listed on a European stock exchange at the moment of the bid announcement, and is zero otherwise. Source: based on <i>SDC and Amadeus/Fame/Reach</i>

<i>Variable</i>	<i>Definition</i>
Q-ratio	Ratio of market value of equity (ordinary and preferred) plus book value of total (long-term and short-term) debt over the sum of book value of equity and book value of total debt. The market value of equity is taken 60 days prior to deal announcement, book value of equity and debt are at year-end prior to deal announcement. Source: based on <i>Amadeus/Fame/Reach and DataStream</i>
Relative size	The ratio of the transaction value over the sum of the transaction value plus the bidder market value of equity and book value of total (long-term and short-term) debt. If the transaction value is undisclosed, we use the book value of the target firm's assets one year prior to the bid multiplied by the percentage of share capital acquired. Source: based on <i>SDC, LexisNexis, Factiva, and Financial Times and Amadeus/Fame/Reach and DataStream</i>
Rule of Law index	The Rule of Law index measures the extent to which agents have confidence in and abide by the rules of society; these also include the effectiveness and predictability of the judiciary and the enforceability of contracts. The index ranges between 0 and 5, with higher values corresponding to the better quality of law enforcement. Source: <i>The World Bank</i> (http://www.worldbank.org/wbi/governance/).
Run-up	Cumulative abnormal returns (CARs) of the bidder/target over the window [-60, -2] preceding the day of the deal announcement. Abnormal returns are computed with the market model adjusted for thin-trading and reversion to the mean. The market model's parameters are estimated over the period of 300 to 60 days before the M&A announcement; the market index is the MSCI Europe index. Source: based on <i>DataStream</i>
Same Industry	Indicator equals one if the bidder and target operate in same industries (their primary 2-digit SIC codes are the same), and equals zero otherwise. Source: based on <i>SDC and Amadeus/Fame/Reach</i>
Same Language group	Indicator equals one if at least one official language of the target country belongs the same language group (Romance languages, Germanic (excluding English), Slavic, English) as that of the one of the official languages of the bidder country, and equals zero otherwise. Source: based on <i>SDC</i>
Shareholder rights index	The value of the Shareholder rights index (defined in Appendix III) multiplied by the Rule of Law index. Source: Martynova and Renneboog (2007b) and Appendix II/III.
Size (log TA)	Logarithm of the firm's total assets at the year-end prior to deal announcement. Source: <i>DataStream and Amadeus/Fame/Reach</i>

Appendix II. The names of the legal experts who contributed to the corporate governance database :

- Austria:** Prof. Susanne Kalls (*University of Klagenfurt*), Prof. Christian Nowotny and Mr. Stefan Fida (*Vienna University of Economics and Business Administration*);
- Belgium:** Prof. Eddy Wymeersch (*University of Ghent, Chairman of the Commission for Finance, Banking and Assurance*), Prof. Christoph Van der Elst (*University of Ghent*);
- Bulgaria:** Dr. Plamen Tchipev (*Institute of Economics, Bulgarian Academy of Sciences*), Ms. Tania Bouzeva (*ALIENA Consult Ltd., Sofia*), Dr. Ivaylo Nikolov (*Centre for Economic Development, Sofia*);
- Croatia:** Dr. Domagoj Racic and Mr. Josip Stajfer (*The Institute of Economics, Zagreb*), Mr. Andrej Galogaža (*Zagreb Stock Exchange*), Prof. Drago Čengić (*I VO PILAR Institute of Social Sciences*), Prof. Edit Culinovic-Herc (*University of Rijeka*);
- Cyprus:** Mr. Marios Clerides (Chairman) and Ms. Christiana Vovidou (*Cyprus Securities and Exchange Commission*);
- Czech Republic:** Prof. Lubos Tichy, Mr. Martin Abraham, and Mr. Rostislav Pekar (*Squire, Sanders & Dempsey, Counsellors at Law*), Dr. Petr Kotáb and Prof. Milan Bakes (*Charles University of Prague*), Dr. Stanislav Myslíl (*Čermák Hořejš Myslíl a spol, Lawyers and Patent Attorneys*), Dr. Jan Bárta (*Institute of State and Law, The Academy of Science of Czech Republic*), Ms. Jana Klířová (*Corporate Governance Consulting, Prague*);
- Denmark:** Prof. Jesper Lau Hansen and Prof. Ulrik Rammeskov Bang-Pedersen (*University of Copenhagen*);
- Estonia:** Prof. Andres Vutt (*University of Tartu*), Mr. Toomas Luhaäär, Mr. Peeter Lepik, and Ms. Katri Paas (*Law Office of Lepik & Luhaäär*);
- Finland:** Prof. Matti J. Sillanpää (*Turku School of Economics and Business Administration*), Mr. Ingall Aspholm (*Rahoitustarkastus/Financial Supervision Authority*), Ms. Ari-Pekka Saario (*Borenus & Kempinen, Attorneys at Law, Helsinki*), Ms. Johan Aalto (*Hannes Snellman, Attorneys at Law, Helsinki*);
- France:** Prof. Alain Couret (*Université Paris I- Panthéon-Sorbonne*), Ms. Joëlle Simon (*MEDEF - French Business Confederation*), Prof. Benoit Le Bars (*MC Université de Cergy-Pontoise*), Prof. Alain Pietrancosta (*Universities of Tours and Paris I- Panthéon-Sorbonne*), Prof. Viviane de Beaufort (*ESSEC-MBA*), Prof. Gerard Charreaux (*Université de Bourgogne Pôle d'économie et de gestion*);
- Germany:** Prof. Peter O. Muelbert (*University of Mainz*), Prof. Klaus Hopt and Dr. Alexander Hellgardt (*Max Planck Institute for Foreign Private and Private International Law*), Prof. Theodor Baums and Mr. Tobias Pohl (*Johann Wolfgang Goethe University, Frankfurt/Main*);
- Greece:** Prof. Loukas Spanos (*Centre of Financial Studies, University of Athens*), Dr. Harilaos Mertzanis (*Hellenic Capital Market Commission*), Prof. Georgios D. Sotiropoulos (*University of Athens*);
- Hungary:** Dr. Tamás Sándor (*Sándor Bihary Szegedi Szent-Ivány Advocats*), Dr. Andras Szecskay and Dr. Orsolya Görgényi (*Szecskay Law Firm - Moquet Borde & Associés*), Prof. Adam Boóc and Prof. Anna Halustyiik (*Corvinus University of Budapest*);
- Iceland:** Mr. Gunnar Sturluson and Mr. Olafur Arinbjorn Sigurdsson (*LOGOS legal services*), Dr. Aðalsteinn E. Jónasson (*Straumur Investment Bank and Reykjavik University*), Mr. David Sch. Thorssteinsson (*Iceland Chamber of Commerce*);
- Ireland Republic:** Dr. Blanaid Clarke (*University College Dublin*), Ms. Kelley Smith (*Irish Law Library, Barrister*);
- Italy:** Prof. Guido Ferrarini and Mr. Andrea Zanoni (*University of Genoa*), Dr. Magda Bianco and Dr. Alessio Paces (*Banca d'Italia*), Prof. Luca Enriques (*Università di Bologna*);
- Latvia:** Prof. Kalvis Torgans and Dr. Pauls Karnups (*University of Latvia*), Mr. Uldis Cerps (*Riga Stock Exchange*);
- Lithuania:** Mr. Virgilijus Poderys (Chairman) and Ms. Egle Surpliene (*The Securities Commission of Lithuania*), Mr. Rolandas Valiūnas, Dr. Jaunius Gumbis, and Dr. Dovilė Burgienė (*Lideika, Petrauskas, Valiūnas ir partneriai*), Dr. Paulius Cerka (*Vytautas Magnus University*), Mr. Tomas Bagdanskis (*Tomas Bagdanskis, Attorney at Law*);
- Luxembourg:** Mr. Jacques Loesch (*Linklaters Loesch Law Firm*), Mr. Daniel Dax (*Luxembourg Stock Exchange*);
- Netherlands:** Prof. Jaap Winter (*De Brauw Blackstone Westbroek, High Level Group of Company Law Experts European Commission Office (Chairman)*), *University of Amsterdam*), Mr. Marcel van de Vorst and Mr. Gijss van Leeuwen (*Norton Rose Advocaten & Solicitors*), Mr. Johan Kleyn and Dr. Barbara Bier (*Allen & Overy LLP*), Dr. Pieter Ariens Kappers (*Boekel De Nerée*), Prof. A.F. Verdam (*Vrije Universiteit Amsterdam*), Prof. Mr. C. A. Schwarz (*Maastricht University*);
- Norway:** Prof. Kristin Normann Aarum (*Oslo University*), Prof. Tore Brathen (*University of Tromsø*), Prof. Jan Andersson (*University of Bergen*);
- Poland:** Prof. Stanisław Sołtyśński and Dr. Andrzej W. Kawecki (*The law firm of Sołtyśński Kawecki & Szlezak*), Mr. Igor Bakowski (*Gotshal & Manges, Chajec, Don-Siemion & Żyto Sp.k.*), Dr. Piotr Tamowicz, Mr. Maciej Dzierżanowski, and Mr. Michał Przybyłowski (*The Gdańsk Institute for Market Economics*), Ms. Anna Miernika-Szulc (*Warsaw Stock Exchange*);
- Portugal:** Mr. Victor Mendes (*CMVM – Comissão do Mercado de Valores Mobiliários*), Mr. Carlos Ferreira Alves (*CEMPRE, Faculdade de Economia, Universidade do Porto*), Prof. Manuel Pereira Barrocas (*Barrocas Sarmento Rocha - Sociedade de Advogados*), Dr. Jorge de Brito Pereira (*PLMJ - A.M. Pereira, Sragga Leal, Oliveira Martins, J dice e Associados - Sociedade de Advogados*), Dr. Manuel Costa Salema, Dr. Carlos Aguiar, and Mr. Pedro Pinto (*Law firm Carlos Aguiar P Pinto & Associados*), Mr. Antonio Alfaia de Carvalho (*Lebre Sá Carvalho & Associados*);
- Romania:** Mr. Gelu Goran (*Salans, Bucharest office*), Dr. Sorin David (*Law firm David & Baias SCPA*), Ms. Adriana I. Gaspar (*Nestor Nestor Diculescu Kingston Petersen, Attorneys & Counselors*), Mr. Catalin Baiculescu and Dr. Horatiu Dumitru (*Musat & Associates, Attorneys at Law*), Ms. Catalina Grigorescu (*Haarmann Hemmelrath Law Firm*);
- Slovak Republic:** Dr. Jozef Makuch (Chairman) and Dr. Stanislav Škurla (*Financial Market Authority, Slovak Republic*), Dr. Frantisek Okruhlica (*Slovak Governance Institute*);
- Slovenia:** Prof. Janez Prasnikar and Dr. Aleksandra Gregoric (*University of Ljubljana*), Prof. Miha Juhart, Mr. Klemen Podobnik, and Ms. Ana Vlahek (*Securities Market Agency*);
- Spain:** Prof. Candido Paz-Ares (*Universidad Autonoma de Madrid*), Prof. Marisa Aparicio (*Universidad Autonoma de Madrid and Universidad Pontificia Comillas de Madrid*), Prof. Guillermo Guerra (*Universidad Rey Juan Carlos*);
- Sweden:** Prof. Per Samuelsson and Prof. Gerard Muller (*School of Economics and Management at Lund University*), Prof. Rolf Dotevall (*Göteborg University*), Dr. Catarina af Sandeberg, and Prof. Annina Persson (*Stockholm University*), Prof. Björn Kristiansson (*Linklaters Sweden*);
- Switzerland:** Dr. Urs P. Gnos (*Walder Wyss & Partners*), Prof. Gerard Hertig (*Swiss Federal Institute of Technology - ETH Zurich*), Dr. Michel Haymann (*Haymann & Baldi*), Prof. Wolfgang Drobetz (*University of Basel – WWZ*), Prof. Karl Hofstetter (*Universität Zürich*), Prof. Peter Nobel and Mr. Marcel Würmli (*Universität St. Gallen*);
- UK:** Prof. Antony Dnes (*Bournemouth University*), Prof. Dan Prentice and Ms. Jenny Payne (*Oxford University*), Prof. Brian R Cheffins, Mr. Richard Charles Nolan, and Mr. John Armour (*University of Cambridge*), Prof. Paul Davies (*London School of Economics*), Mr. Gerard N. Cranley, Ms. Holly Gregory, and Ms. Ira Millstein (*Weil, Gotshal & Manges*), Ms. Eva Lomnicka (*University of London*);

Appendix III. Design of corporate governance standards indices

The table shows how specific regulations are quantified to construct three corporate governance standards indices: the shareholder rights index, the minority shareholders protection index, and the creditor rights index. Some regulatory aspects are incorporated in several indices.

1. The shareholder rights index reflects the shareholders' ability to mitigate managerial opportunistic behaviour. The index is constructed by combining the following 4 sub-indices:

1.1 The appointment rights sub-index is based on the rules to appoint and replace executive and non-executive directors. It measures the degree of alignment of the interests of management and shareholders. The regulatory provisions are quantified as follows:

- Employee representation: 0 if required, 2 if not.
- Nomination to the board by shareholders: 2 if required, 0 if not.
- Tenure on the board: 0 if more than 4 years, 1 if 4 years, 2 if less than 4 years
- Cross-shareholdings:
 - Cross-shareholdings between 2 independent companies: 1 if regulated, 0 if not.
 - Maximum shareholding of a subsidiary in its parent company: 1 if regulated, 0 if not
- Election rules:
 - Proxy voting by mail: 2 if allowed, 0 if not
 - Requirement to Deposit/Register shares prior to a general meeting:
 - ⇒ Bearer shares: 0 if deposit is required, 1 if only registration of shares is required, 2 if none is required
 - ⇒ Nominal shares: 0 if deposit is required, 2 if deposit requirement is forbidden

1.2 The decision rights sub-index captures the shareholders' ability to mitigate managerial discretion. The decision rights index cover regulatory provisions that mandate direct shareholder decision-making. The regulatory provisions are quantified as follows:

- Shareholders approval of anti-takeover measures: 2 if required, 0 if not.
- Shareholders approval of preemption rights: 2 if required, 0 if not.
- Percentage needed to call for extraordinary meeting: 0 if no rule or more than 20%, 1 if 20% or less but more than 5%, 2 if 5% and less.
- Voting caps: 0 if allowed, 2 if not.

1.3 The trusteeship sub-index measures the efficiency of the board of directors in monitoring the actions of CEOs. The following regulatory provisions are quantified as follows:

- Board independence:
 - 2 if CEO cannot be the chairman of the board of directors (in 1-tier board structure), 0 otherwise
 - 2 if the overlap between management and supervisory board is forbidden (in 2-tier board structure), 0 otherwise
- Employee representation: 0 if required, 2 if not.
- Separate board of auditors: 1 if required, 0 otherwise

1.4 The transparency sub-index is based on the quality of information about company, its ownership structure, and management available to investors

- Requirement to disclose managerial compensation: 0 if not required, 1 if required on aggregate basis, 2 if required on individual basis.
- Requirement to disclose any transactions between management and company: 2 if required, 0 if not
- Frequency of financial reports: 0 if once per year, 1 if twice per year, 2 if more than twice per year
- Comply or explain rule: 1 if the requirement is present, 0 otherwise

The higher each index, the better is the protection of the shareholders.

2. The minority shareholders protection index is based on the regulatory provisions aimed at increasing the relative power of the minority shareholders in a context of strong majority shareholders. The index is constructed by combining the following 4 sub-indices:

2.1 Minority shareholders appointment rights sub-index is based on the appointment rights that can be used to protect minority shareholders. These include rights to reserve seats on the board of directors for minority shareholders or to limit voting power of large shareholders. The regulatory provisions are quantified as follows:

- Minority representation on the board: 2 if required, 0 otherwise.
- Voting caps limiting power of large shareholders: 1 if voting caps are allowed, 0 if not.
- One-share-one-vote rule: 0 if both multiple voting rights and non-voting shares are allowed; 1 if one of the two is allowed; 2 if none is allowed.

2.2 Minority shareholders decision rights sub-index captures the ability of minority shareholders to affect fundamental corporate

transactions that require a shareholder vote. The regulatory provisions are quantified as follows:

- Supermajority requirement for approval of major company's decisions: 0 if 50% or less; 1 if more than 50% but less than 75%; 2 if 75% or more
- Percentage needed to call for extraordinary meeting: 0 if the rule is not present or required percentage is 20% or more; 1 if the required percentage is between 20 and 5%; 2 if the percentage is 5% or less.

2.3 *The minority shareholders trusteeship rights sub-index* indicates the extent to which the board of directors serves as a trustee for minority shareholder, i.e. the directors are independent from the firm's controlling shareholders. The regulatory provisions are quantified as follows:

- Nomination to the board by shareholders: 2 if shareholders voting to elect non-executive directors is not required (2-tier boards); 0 if required or 1-tier board
- Board independence: 2 if CEO cannot be the chairman of the board of directors (in 1-tier board structure) or if the overlap between management and supervisory board is forbidden (in 2-tier board structure), 0 otherwise

2.4 *The minority shareholders affiliation rights sub-index* groups the remaining regulatory provisions aimed at protecting minority shareholders: the principle of equal treatment (or shared returns) and rights for entry and exit on fair terms. The regulatory provisions are quantified as follows:

- Equal treatment rule: 2 if required, 0 if not,
- Mandatory disclosure of large ownership stakes: 0 if disclosure is not required or the minimum percent is 25% or more; 1 if 10% or more (less than 25%); 2 if 5% or more (less than 10%); 3 if less than 5%.
- Mandatory bid rule: 0 if not required; 1 if 50% or control; 2 if between 50 and 30%; 3 if 30% or less.
- Sell-out rule: The squeeze-out rule is used as a proxy for the sell-out rule, (assumption: sell-out is always in place if squeeze-out is adopted, with the same terms as squeeze-out): 0 if no squeeze-out; 1 if squeeze-out at 95% or more; 2 if squeeze-out at 90% or less.
- Minority claim: 0 if no; 1 if 10% or more; 2 if 5% or more; 3 if less than 5%.
- Break-through rule: 1 if required; 0 if not,

The higher each index, the better is the protection of the minority shareholders.

3. *The creditor rights index* is based on regulatory provisions that allow creditors to force repayment more easily, take possession of collateral, or gain control over firm in financial distress. The regulatory provisions are quantified as follows:

- Debtor-oriented versus Creditor-oriented code: 1 if no reorganization option (liquidation only); 0 if reorganization + liquidation option;
- Automatic stay on the assets: 1 if no automatic stay is obliged in reorganization (if debt-orient code) or liquidation procedure (if liquidation code); 0 otherwise;
- Secured creditors are ranked first: 1 if secured creditors are ranked first in the liquidation procedure; 0 if government and employees are ranked first;
- Creditor approval of bankruptcy: 1 if creditor approval is required to initiate reorganization procedure (if debtor-oriented code) or liquidation procedure (if liquidation code); 0 otherwise;
- Appointment of official to manage reorganization/liquidation procedure: 1 if it is required by law in a reorganization procedure (if debtor-oriented code) or a liquidation procedure (if liquidation code); 0 otherwise.

The higher the index, the better is the protection of the creditors

Table 1. Sample distribution by country of bidding and target company in domestic and cross-border M&As.

The diagonal elements report the number of domestic acquisitions in a particular country. Off-diagonal elements report the number of cross-border bids involving bidding and target companies from the two corresponding countries. *Total* NUM* counts total the cross-border M&As (excluding domestic deals); *Total* %* shows the percentage of cross-border M&As involving firms from one country in the total number of cross-border M&As. The following country codes are used: AUS=Austria, BEL=Belgium, BUL=Bulgaria, CRO=Croatia, CYP=Cyprus, CZR=Czech Republic, DEN=Denmark, EST=Estonia, FIN=Finland, FRA=France, GER=Germany, GRE=Greece, HUN=Hungary, IRE=Republic of Ireland, ITA=Italy, LAT=Latvia, LIT=Lithuania, LUX=Luxembourg, NL=Netherlands, NOR=Norway, POL=Poland, POR=Portugal, ROM=Romania, RUS=Russia, SLO=Slovenia, ESP=Spain, SWE=Sweden, SWZ=Switzerland, UK= United Kingdom.

BIDDING FIRMS																														Total* cross-border			
TARGET FIRMS																																	
		AUS	BEL	BUL	CRO	CYP	CZR	DEN	EST	FIN	FRA	GER	GRE	HUN	IRE	ITA	LAT	LIT	LUX	NL	NOR	POL	POR	ROM	RUS	SLO	ESP	SWE	SWZ	UK	NUM	%	
BIDDING FIRMS	AUS	11	-	-	2	-	2	1	-	-	-	12	-	2	-	1	-	-	-	1	-	4	-	3	-	1	-	-	2	-	31	4.2%	
	BEL	-	23	-	-	-	1	-	-	-	14	4	-	-	-	1	-	-	-	2	1	1	1	1	1	-	-	3	1	3	34	4.6%	
	BUL	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	CRO	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0.1%	
	CYP	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	2	0.3%	
	CZR	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	0.1%	
	DEN	1	-	-	1	-	-	30	1	3	4	2	-	-	-	3	-	2	-	1	4	1	-	-	-	-	-	3	-	6	32	4.3%	
	EST	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	FIN	1	-	-	-	-	-	4	6	53	-	3	-	-	-	1	3	1	-	1	2	1	-	1	1	-	-	6	-	1	32	4.3%	
	FRA	3	2	-	-	-	7	-	-	1	219	22	1	-	-	13	-	-	1	5	1	6	1	2	1	2	8	3	5	26	110	14.9%	
	GER	9	4	-	-	-	4	-	-	1	10	174	-	1	1	9	-	-	1	7	1	5	2	2	2	-	2	5	10	13	89	12.1%	
	GRE	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HUN	-	-	-	2	-	-	-	-	1	-	1	-	4	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	5	0.7%
	IRE	-	1	-	-	-	-	2	-	1	-	-	-	-	11	-	-	-	-	2	-	1	-	-	-	-	-	-	-	-	19	26	3.5%
	ITA	-	-	-	-	-	1	-	-	-	7	5	-	-	-	39	-	2	1	-	1	1	1	-	-	-	5	1	-	3	28	3.8%	
	LAT	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.1%
	LIT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LUX	-	1	-	-	-	-	-	-	-	1	3	-	-	1	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	1	7	1.0%
	NL	-	-	-	-	-	1	1	-	-	7	2	-	-	-	2	-	-	1	2	1	3	-	-	1	-	1	-	1	6	27	1.3%	
	NOR	-	-	-	-	-	-	3	2	2	2	4	-	-	-	-	-	-	-	-	58	2	-	-	-	-	-	13	-	4	32	4.3%	
	POL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-
	POR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	1	0.1%	
	ROM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
	RUS	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	3	0.4%	
	SLO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-
	ESP	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	1	-	3	1	-	-	-	46	-	1	1	9	1.2%	
	SWE	1	1	1	-	-	3	6	2	8	5	5	2	-	-	2	1	1	-	4	16	4	1	-	1	1	-	102	2	2	69	9.4%	
	SWZ	2	-	-	-	-	1	-	-	-	7	6	-	-	-	4	-	-	-	3	2	-	2	-	1	-	2	1	22	8	39	5.3%	
	UK	2	5	-	1	-	5	4	-	3	31	20	-	-	14	8	-	-	1	18	7	5	2	1	1	-	14	12	5	838	159	21.5%	
	Total* Cross- border	NUM	20	14	2	6	-	25	21	13	20	89	90	3	3	16	44	4	6	5	45	37	37	11	11	10	4	33	48	27	94	738	100%
%		2.7%	1.9%	0.3%	0.8%	-	3.4%	2.9%	1.8%	2.7%	12.0%	12.2%	0.4%	0.4%	2.2%	6.0%	0.5%	0.8%	0.7%	6.1%	5.0%	5.0%	1.5%	1.5%	1.4%	0.5%	4.5%	6.5%	3.7%	12.7%	-	100%	

Table 2. Cumulative average abnormal returns (CAARs) to bidding and target firms in cross-border and domestic M&As.

Panel A reports the average values of the CARs for bidding and target firms in cross-border and domestic acquisitions conducted in Continental Europe and the UK. The CAARs are reported in percentages. Panel B reports the CAARs for bidding and target firms in cross-border and domestic acquisitions classified by the legal origin of the bidder and target countries. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm, we calculate daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement. The *t*-statistics from the non-parametric test (Corrado, 1989) is reported to assess the significance of the CAARs. *a*, *b*, and *c* stand for statistical significance at the 1%, 5%, and 10% level, respectively. *Nobs* stands for the number of observations.

	Cross-Border M&As			Domestic M&As			Diff. Cross-Border – Domestic	
	Mean Value	<i>t</i> -stat	[<i>Nobs</i>]	Mean Value	<i>t</i> -stat	[<i>Nobs</i>]	Mean Value	<i>t</i> -stat
Panel A. Takeover Announcement Effect								
	<i>The BIDDER CAARs:</i>							
[-1; +1]	0.47 ^b	2.25	[653]	0.83 ^a	3.95	[1456]	-0.36 ^b	-2.17
[-5, +5]	0.85 ^c	1.92	[653]	0.76 ^a	2.56	[1456]	0.09	1.15
[-60; +60]	-3.63 ^c	-1.80	[653]	-2.49 ^c	-1.80	[1456]	-1.14 ^a	-3.40
	<i>The TARGET CAARs:</i>							
[-1; +1]	12.55 ^a	5.24	[296]	11.52 ^a	7.42	[764]	1.02 ^a	-2.65
[-5, +5]	15.61 ^a	16.15	[296]	12.17 ^a	2.60	[764]	3.44 ^a	-3.54
[-60; +60]	26.84 ^a	12.04	[296]	24.99 ^a	10.22	[764]	1.85 ^a	-3.53
Panel B. Takeover Announcement Effect by Legal Origin								
	<i>The BIDDER CAARs [-1, +1] by legal origin of the bidder country:</i>							
English legal origin	0.36	1.63	[173]	0.50 ^a	2.69	[744]	-0.14	-1.30
French legal origin	0.39 ^c	1.88	[181]	0.91 ^b	2.32	[279]	-0.52 ^b	-2.18
German legal origin	0.66 ^b	2.08	[137]	0.59 ^b	2.44	[184]	0.07	0.61
Scandinavian legal origin	0.67 ^b	2.15	[149]	2.29 ^a	3.17	[206]	-1.62 ^a	-3.44
EU2004 Accession countries	-1.25 ^b	-2.03	[6]	0.12	0.56	[35]	-1.37 ^a	-2.86
EU2007 Accession countries, Croatia, and Russia	-1.60	-0.23	[4]	-0.51	-0.15	[8]	-1.09	-0.55
	<i>The TARGET CAARs [-1, +1] by legal origin of the target country:</i>							
English legal origin	19.42 ^a	7.52	[57]	17.64 ^a	14.00	[306]	1.78 ^b	2.44
French legal origin	7.12 ^a	3.80	[52]	2.82 ^a	3.18	[118]	4.30 ^a	3.19
German legal origin	7.06 ^a	3.46	[33]	4.42 ^a	3.17	[48]	2.64 ^a	2.53
Scandinavian legal origin	17.32 ^a	7.95	[38]	14.77 ^a	7.12	[76]	2.55 ^a	2.72
EU 2004 Accession countries	1.52	1.53	[15]	3.67 ^a	2.74	[11]	-2.15	-1.62
EU 2007 Accession countries, Croatia, and Russia	-0.18	-0.12	[8]	-6.36	-0.78	[5]	6.18 ^a	3.11

Table 3. Corporate Governance Regulation Indices.

Panel A reports the mean values of the corporate governance indices by legal origin and for every fifth year over the period 1990-2005. All indices are adjusted for the degree of law enforcement by country. *N* is the number of countries of a specific legal origin. Panel B reports the mean values of the indices for bidder and target countries by domestic and cross-border M&As. *a*, *b* and *c* stand for statistical significance at the 1%, 5% and 10% level, respectively.

	English legal origin N=2	French legal origin N=8	German legal origin N=3	Scandinavian legal origin N=4	EU 2004 Accession N=9	EU 2007 Accession countries, Croatia, and Russia N=4
PANEL A. Corporate Governance Indices by Legal Origin and by year						
	<i>SHAREHOLDER RIGHTS INDEX:</i>					
1990	4.79	3.33	2.93	3.34	1.72	1.62
1995	5.21	3.39	3.21	3.55	2.23	1.72
2000	5.91	3.87	4.28	3.97	2.65	2.04
2005	6.13	4.57	4.66	4.18	3.34	2.86
	<i>MINORITY SHAREHOLDER PROTECTION INDEX:</i>					
1990	4.25	2.69	3.14	3.21	1.51	0.68
1995	4.58	2.89	3.57	3.38	2.13	1.18
2000	5.20	3.37	4.52	3.60	2.78	1.96
2005	5.05	3.42	4.64	3.63	3.54	2.15
	<i>CREDITOR RIGHTS INDEX:</i>					
1990	3.40	4.42	5.92	6.67	1.18	1.22
1995	3.40	4.43	5.92	5.33	3.51	2.27
2000	3.51	3.89	4.29	4.07	3.82	2.33
2005	3.41	3.48	4.11	4.03	4.10	2.61

PANEL B. Corporate Governance Indices by the Bidder/Target Country in Cross-border and Domestic M&As

	Cross-Border M&As		Domestic M&As		Diff. Cross-Border – Domestic	
	Mean Value	<i>t-stat</i>	Mean Value	<i>t-stat</i>	Mean Value	<i>t-stat</i>
	<i>SHAREHOLDER RIGHTS INDEX:</i>					
Bidder Country	4.37		5.11		-0.74 ^a	-3.22
Target Country	3.74		5.11		-1.37 ^a	-2.84
Diff. Bidder - Target	0.63 ^a	3.16	-	-	-	-
	<i>MINORITY SHAREHOLDER PROTECTION INDEX:</i>					
Bidder Country	4.06		4.41		-0.35 ^a	-2.65
Target Country	3.74		4.41		-0.67 ^a	-3.11
Diff. Bidder - Target	0.32 ^b	2.31	-	-	-	-
	<i>CREDITOR RIGHTS INDEX:</i>					
Bidder Country	3.71		3.43		0.28	1.62
Target Country	3.72		3.43		0.29	1.61
Diff. Bidder - Target	-0.01	-0.04	-	-	-	-
Num. of obs	737		1681			

Table 4. Correlation matrix

a, *b* and *c* stand for statistical significance at the 1%, 5% and 10% level, respectively. P-values testing the difference from zero are given between brackets.

	(Bidder) CAR [-1, +1]	(Target) CAR [-1, +1]	(Bidder) Shareholder Rights Index	(Bidder) Minority Shareholder Protection Index	(Bidder) Creditor Rights Index	(Target) Shareholder Rights Index	(Target) Minority Shareholder Protection Index	(Target) Creditor Rights Index	Difference Bidder-Target Shareholder Rights Index	Difference Bidder-Target Minority Shareholder Protection Index	Difference Bidder-Target Creditor Rights Index
(Bidder) CAR [-1, +1]	-	0.023 (.814)	0.035 (.376)	0.023 (.763)	0.001 (.998)	0.066^c (.053)	-0.054^c (.066)	0.017 (.653)	-0.008 (.533)	-0.044 (.259)	-0.013 (.744)
(Target) CAR [-1, +1]	0.023 (.814)	-	0.024 (.735)	0.058 (.416)	-0.099 (.165)	0.319^a (.000)	0.226^a (.001)	0.056 (.229)	0.222^a (.002)	0.124 (.185)	-0.076 (.114)
(Bidder) Q-ratio	-0.031 (.561)	-0.166^c (.072)	0.146^a (.005)	0.110^b (.035)	-0.047 (.372)	0.066 (.209)	0.028 (.315)	-0.079 (.129)	0.054 (.308)	-0.033 (.531)	0.030 (.566)
(Bidder) Leverage	0.001 (.988)	0.084 (.478)	-0.001 (.979)	-0.040 (.439)	0.178^b (.032)	0.027 (.598)	0.057 (.272)	-0.008 (.882)	-0.019 (.707)	-0.072 (.168)	0.056 (.283)
(Bidder) Size (log TA)	-0.222^a (.009)	0.031 (.793)	-0.150^a (.004)	-0.132^b (.011)	-0.001 (.990)	-0.003 (.946)	0.008 (.871)	0.011 (.827)	-0.099^c (.057)	-0.091^c (.083)	-0.009 (.863)
(Bidder) CFlow/TA	-0.063 (.230)	0.058 (.218)	0.057 (.272)	0.081 (.118)	0.044 (.401)	0.039 (.458)	0.055 (.284)	-0.005 (.925)	0.012 (.814)	0.007 (.900)	0.032 (.545)
(Target) Q-ratio	-0.228^b (.022)	-0.059 (.474)	0.045 (.568)	-0.042 (.595)	0.057 (.475)	-0.011 (.892)	-0.016 (.836)	0.007 (.932)	0.033 (.681)	-0.017 (.829)	0.037 (.644)
(Target) Leverage	-0.011 (.914)	0.024 (.766)	-0.068 (.380)	-0.096 (.222)	-0.004 (.959)	-0.021 (.794)	-0.127 (.102)	0.113^b (.047)	-0.023 (.772)	0.029 (.711)	-0.077 (.325)
(Target) CFlow/TA	0.197^b (.045)	0.068 (.406)	-0.007 (.928)	-0.032 (.684)	-0.105 (.180)	0.045 (.567)	-0.033 (.678)	0.121 (.122)	-0.037 (.641)	0.003 (.978)	-0.154 (.048)
Equity Payment	-0.059 (.254)	-0.215^a (.005)	-0.110^b (.019)	-0.120^b (.011)	0.028 (.552)	0.036 (.447)	0.007 (.878)	-0.000 (.999)	-0.096^b (.043)	-0.092^c (.053)	0.018 (.702)
Public Target	-0.035 (.368)	-	-0.030 (.413)	-0.019 (.595)	0.131^a (.000)	0.254^a (.000)	0.222^a (.000)	0.031 (.406)	-0.193^a (.000)	-0.188^a (.000)	0.066^c (.075)
Hostile Bid	-0.093^c (.077)	0.189^a (.008)	-0.032 (.385)	-0.018 (.621)	-0.041 (.266)	0.171^a (.000)	0.138^a (.000)	0.046 (.213)	-0.138^a (.000)	-0.121^a (.001)	-0.059 (.104)
M&A of 100%	0.036 (.353)	0.337^a (.000)	0.094^a (.010)	0.067 (.067)	-0.006 (.859)	0.274^a (.000)	0.219^a (.000)	0.051 (.163)	-0.120^a (.001)	-0.125^a (.000)	-0.041 (.267)
Diversification	-0.007 (.857)	0.100 (.163)	-0.003 (.928)	0.008 (.829)	0.025 (.495)	0.065^c (.075)	0.054 (.137)	0.029 (.432)	-0.046 (.208)	-0.037 (.310)	-0.004 (.914)
Relative Size	0.008 (.878)	-0.083 (.151)	-0.219^a (.000)	-0.167^a (.002)	-0.070 (.193)	0.132^b (.015)	0.088 (.104)	0.085 (.117)	-0.224^a (.000)	-0.181^a (.001)	-0.107^b (.049)
(Bidder) Runup	0.129^a (.001)	0.141 (.145)	0.039 (.311)	0.088^b (.024)	0.053 (.173)	0.026 (.499)	0.049 (.209)	0.004 (.917)	0.011 (.789)	0.022 (.575)	0.032 (.416)
(Target) Runup	-0.133 (.171)	0.137^c (.056)	-0.028 (.690)	0.052 (.468)	0.042 (.557)	0.347^a (.000)	0.326^a (.000)	-0.017 (.813)	-0.272^a (.000)	-0.202^a (.004)	0.042 (.562)

Table 5. Sample composition by quality of the bidder and target corporate governance systems for cross-border acquisitions

Panel A. Shareholder Rights Index

Frequency				
Percent		<i>TARGET FIRMS</i>		
Raw Pct		Below	Above	Total
Col Pct		Median	Median	
<i>BIDDING FIRMS</i>	Below Median	49	127	176
		6.65%	17.23%	23.88%
		27.84%	72.16%	
		19.29%	26.29%	
	Above Median	205	356	561
		27.82%	48.30%	76.12%
		36.54%	63.46%	
		80.71%	73.71%	
	Total	254	483	737
		34.46%	65.54%	100.0%

Panel B. Minority Shareholder Protection Index

Frequency				
Percent		<i>TARGET FIRMS</i>		
Raw Pct		Below	Above	Total
Col Pct		Median	Median	
<i>BIDDING FIRMS</i>	Below Median	16	33	49
		2.17%	4.48%	6.65%
		32.65%	67.35%	
		11.85%	5.48%	
	Above Median	119	569	688
		16.15%	77.20%	93.35%
		17.30%	82.70%	
		88.15%	94.52%	
	Total	135	602	737
		18.32%	81.68%	100.0%

Panel C. Creditor Rights Index

Frequency				
Percent		<i>TARGET FIRMS</i>		
Raw Pct		Below	Above	Total
Col Pct		Median	Median	
<i>BIDDING FIRMS</i>	Below Median	154	193	347
		20.90%	26.19%	47.08%
		44.38%	55.62%	
		44.90%	48.98%	
	Above Median	189	201	390
		25.64%	27.27%	52.92%
		48.46%	51.54%	
		55.10%	51.02%	
	Total	343	394	737
		46.54%	53.46%	100.0%

Table 6. Heckman sample selection equations for bidding and target firms in cross-border M&As

This table shows the selection equations of sample selection models for the bidding and target firms. The selection equations model the probability that a bidder (target) firm participates in a cross-border (rather than domestic) acquisition. The depended variable equals one if the bidder (target) firm participates in a cross-border takeover, and zero if in a domestic takeover. The definitions of the included variables are given in Appendix I. *a*, *b* and *c* stand for statistical significance at the 1%, 5% and 10% level, respectively.

	Probability of a BIDDING company acquiring a foreign firm (vs. domestic firm)		Probability of a TARGET company being acquired by a foreign firm (vs. a domestic firm)	
	Coeff.	Pr > ChiSq	Coeff.	Pr > ChiSq
<i>Corporate Governance in the Firm Country:</i>				
Shareholder Rights Index	-0.3123^a	.000	-0.2149^c	.092
Minority Shareholder Protection Index	0.3945^a	.009	-0.1311	.596
Creditor Rights Index	0.2804^a	.000	0.2962^a	.000
<i>Firm Characteristics:</i>				
Q-ratio	0.0229^b	.022	0.0398	.174
Leverage	-0.2117	.590	-0.4936	.346
Size (log TA)	0.2159^a	.000	0.1949^a	.000
Cash Flow/TA	0.5508	.362	0.2502	.770
<i>Deal Characteristics:</i>				
Public Target	-0.4561^b	.032	-	
Same Industry	0.0438	.720	-0.0274	.875
1997-1999	0.2326	.114	0.5145^b	.019
2000-2001	0.2987^b	.049	0.5936^b	.011
<i>Characteristics of the Firm's Country:</i>				
Anti-Corruption Index	-0.1045	.418	0.3511^a	.007
Log GNP per capita	-0.3639	.522	0.2862	.284
GDP growth	-0.1593^c	.078	0.2707^b	.012
# Domestic Acquisitions / # Listed Firms 1 year prior	-0.0267	.218	-0.0400	.560
Intercept	-2.9004^a	.000	-2.1785^a	.003
Number of obs.	2271		760	
Pseudo-R ²	21.15%		27.08%	

Table 7. The impact of corporate governance *regulation* on the bidder CARs in cross-border M&As

This table reports the results of the OLS regression of the bidder CARs for the sample of cross-border takeovers. The dependent variable is the bidder CARs [-1, +1]. Variable definitions are given in Appendix I. Seven different specifications are estimated. A Heckman sample selection is applied to correct for potential biases due to the bidder's endogenous choice of participating in a cross-border (rather than domestic) takeover. For each variable we list the coefficient and the heteroskedasticity-consistent p-value. a/ b/ c stand for statistical significance at the 1%/ 5%/ 10%, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Corporate Governance Regulation Effect:</i>							
(Bidder) Shareholder Rights Index	0.0017 (.329)	0.0020 (.248)	0.0027 (.253)	0.0029 (.156)			
(Bidder) Minority Shareholder Protection Index	0.0043 (.389)	0.0026 (.771)	0.0022 (.810)		0.0020 (.753)		
(Bidder) Creditor Rights Index	0.0005 (.726)	0.0012 (.680)				0.0006 (.830)	
(Target) Shareholder Rights Index	0.0021 (.415)	0.0015 (.511)	0.0018 (.618)	0.0011 (.314)			
(Target) Minority Shareholder Protection Index	-0.0013 (.357)	-0.0032 (.229)	-0.0034 (.216)		-0.0030 (.118)		
(Target) Creditor Rights Index	0.0004 (.796)	0.0014 (.551)				0.0019 (.408)	
<i>Bidder and Target Firms' characteristics:</i>							
(Bidder) Q-ratio		-0.0003 (.689)	-0.0002 (.753)	-0.0002 (.745)	-0.0003 (.664)	-0.0004 (.552)	-0.0013 (.323)
(Bidder) Leverage		0.0044 (.869)	0.0038 (.883)	0.0029 (.910)	0.0012 (.963)	0.0024 (.928)	0.0028 (.568)
(Bidder) Size (log TA)		-0.0012^b (.031)	-0.0012^b (.034)	-0.0012^b (.019)	-0.0009^a (.005)	-0.0009^b (.029)	-0.0018^a (.006)
(Bidder) Cash Flow/TA		-0.0508 (.326)	-0.0522 (.309)	-0.0511 (.318)	-0.0533 (.299)	-0.0525 (.306)	-0.0153 (.780)
(Target) Leverage		-0.0303 (.702)	-0.0355 (.653)	-0.0117 (.883)	-0.0162 (.839)	-0.0021 (.979)	-0.0730 (.127)
(Target) Cash Flow/TA		0.0805 (.569)	0.0724 (.399)	0.0866 (.251)	0.0911 (.241)	0.0945 (.336)	0.0582 (.647)
<i>Deal characteristics:</i>							
Equity Payment		-0.0140 (.268)	-0.0148 (.239)	-0.0150 (.232)	-0.0153 (.223)	-0.0144 (.253)	-0.0163 (.122)
Public Target		-0.0077 (.459)	-0.0065 (.521)	-0.0069 (.491)	-0.0055 (.585)	-0.0043 (.663)	0.0034 (.924)
Hostile Bid		-0.0302^b (.021)	-0.0311^b (.015)	-0.0314^a (.010)	-0.0291^b (.029)	-0.0269^c (.062)	-0.0419^a (.006)
M&A of 100%		-0.0013 (.892)	-0.0009 (.918)	-0.0012 (.897)	0.0003 (.970)	0.0012 (.895)	0.0016 (.556)
Diversification		-0.0013 (.886)	-0.0012 (.894)	-0.0009 (.916)	0.0002 (.977)	0.0006 (.945)	0.0007 (.935)
Relative Size		0.0238 (.277)	0.0232 (.287)	0.0240 (.267)	0.0246 (.257)	0.0242 (.263)	0.0242 (.262)
(Bidder) Runup		0.0352^a (.009)	0.0361^a (.007)	0.0360^a (.006)	0.0358^a (.007)	0.0354^a (.007)	0.0360^a (.006)
<i>Bidder and Target Country characteristics:</i>							
Same Language Group		0.0010^c (.064)	0.0012^b (.031)	0.0011^b (.036)	0.0012^b (.048)	0.0008 (.107)	0.0026^b (.012)
Common Border		0.0017^b (.015)	0.0021^b (.020)	0.0022^b (.032)	0.0024^b (.018)	0.0014^c (.071)	0.0043^b (.017)
(Bidder) log GNP per capita		0.0046 (.316)	0.0038 (.415)	0.0036 (.422)	0.0038 (.385)	0.0043 (.368)	0.0175 (.211)
Difference (Bidder-Target) log GNP per capita		0.0020 (.532)	0.0012 (.701)	0.0013 (.655)	0.0012 (.629)	0.0024 (.828)	0.0034 (.502)
(Target) Anti-Corruption Index		0.0003 (.788)	0.0002 (.872)	0.0004 (.667)	0.0004 (.654)	0.0002 (.988)	0.0008 (.428)
Intercept	-0.0147 (.426)	-0.0190 (.554)	-0.0088 (.750)	-0.0104 (.635)	-0.0029 (.917)	-0.0063 (.679)	0.0023 (.753)
Heckman λ (Mill's ratio)	-0.0034^a (.002)	-0.0032^a (.005)	-0.0032^a (.004)	-0.0033^a (.002)	-0.0032^a (.005)	-0.0034^a (.004)	-0.0033^a (.003)
Number of obs.	641	641	641	641	641	641	641
Adjusted-R ²	3.40%	5.33%	4.67%	5.55%	4.91%	4.85%	4.80%

Table 8. The impact of the corporate governance *spillover effects* on the bidder CARs in cross-border M&As

This table reports the results of the OLS regression of the bidder CARs for the sample of cross-border takeovers. The dependent variable is the bidder CARs [-1, +1]. Variable definitions are given in Appendix I. Six different specifications are estimated. A Heckman sample selection is applied to correct for potential biases due to the bidder endogenous choice of participating in a cross-border (rather than domestic) takeover or not. We do not report the parameter estimates of the control variables, as they are similar to those reported in Table 7. The indicator 'Yes' denotes that a particular control variable is included in the regression and 'No' that it is not. Panel A reports the regression estimates of the *differences*-approach while Panel B reports the estimates of the indicator-variable approach. For each variable we list the coefficient and the heteroskedasticity-consistent p-value. *a/ b/ c* stand for statistical significance at 1%/ 5%/ 10%, respectively. The number of observations in each regression is 641.

	(1)	(2)	(3)	(4)	(5)	(6)
PANEL A. DIFFERENCES-APPROACH						
<i>Corporate Governance Regulation Effect:</i>						
(Bidder) Shareholder Rights Index	0.0012 (.478)	0.0047 (.242)	0.0055 (.145)	0.0042 (.231)		
(Bidder) Minority Shareholder Protection Index	0.0006 (.368)	0.0019 (.934)	0.0019 (.852)		0.0020 (.753)	
(Bidder) Creditor Rights Index	0.0001 (.672)	0.0026 (.504)				0.0025 (.512)
<i>Corporate Governance Spillover Effect</i>						
Diff (Bidder – Target) Shareholder Rights Index	0.0005 (.725)	0.0007 (.777)	0.0001 (.943)	0.0001 (.914)		
Diff (Bidder – Target) Minority Shareholder Protection Index	0.0013 (.757)	0.0035 (.618)	0.0041 (.555)		0.0040 (.381)	
Diff (Bidder – Target) Creditor Rights Index	-0.0004 (.796)	-0.0014 (.551)				-0.0019 (.409)
<i>Characteristics of the bidder and target, the M&A deal, and the bidder and target countries</i>	No	Yes	Yes	Yes	Yes	Yes
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Heckman λ (Mill's ratio)	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted-R ²	1.68%	4.82%	4.67%	4.55%	3.91%	3.85%
	(1)	(2)	(3)	(4)	(5)	(6)
PANEL B. INDICATOR-VARIABLE APPROACH						
<i>Corporate Governance Regulation Effect:</i>						
(Bidder) Shareholder Rights Index	0.0001 (.782)	0.0014 (.557)	0.0009 (.652)	0.0013 (.649)		
(Bidder) Minority Shareholder Protection Index	0.0046 (.395)	0.0022 (.815)	0.0014 (.879)		0.0016 (.783)	
(Bidder) Creditor Rights Index	0.0020 (.341)	0.0025 (.478)				0.0017 (.624)
<i>Positive Spillover by Law/ Spillover by Control hypotheses (Spillover from Bidder to Target):</i>						
(Target) Shareholder Rights Improvement	0.0173^a (.009)	0.0166^a (.008)	0.0153^a (.008)	0.0148^a (.007)		
(Target) Minority Shareholder Protection Improvement	-0.0014 (.832)	0.0088 (.384)	0.0086 (.389)		0.0055 (.566)	
(Target) Creditor Rights Improvement	-0.0075 (.344)	0.0014 (.912)				-0.0017 (.886)
<i>Bootstrapping hypothesis (Spillover from Target to Bidder):</i>						
(Bidder) Shareholder Rights Improvement	0.0115^b (.036)	0.0041 (.218)	0.0042 (.272)	0.0024 (.589)		
(Bidder) Minority Shareholder Protection Improvement	-0.0001 (.990)	0.0050 (.720)	0.0036 (.792)		0.0071 (.591)	
(Bidder) Creditor Rights Improvement	-0.0013 (.864)	0.0068 (.588)				0.0058 (.642)
<i>Characteristics of the bidder and target, the M&A deal, and the bidder and target countries</i>	No	Yes	Yes	Yes	Yes	Yes
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Heckman λ (Mill's ratio)	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted-R ²	2.13%	5.87%	4.65%	5.71%	4.54%	4.17%

Table 9. The impact of corporate governance *regulation* on the target CARs in cross-border M&As

This table reports the results of the OLS regression of the target CARs for the sample of cross-border takeovers. The dependent variable is the target CARs [-1, +1]. Variable definitions are given in Appendix I. Seven different specifications are estimated. A Heckman sample selection is applied to correct for potential biases due to the target endogenous choice of participating in a cross-border (rather than domestic) takeover or not. For each variable show the heteroskedasticity-consistent p-value. *a/ b/ c* stand for statistical significance at 1%/ 5%/ 10%, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Corporate Governance Regulation Effect:</i>							
(Bidder) Shareholder Rights Index	0.0169^c (.087)	0.0069 (.324)	0.0029 (.434)	0.0026 (.659)			
(Bidder) Minority Shareholder Protection Index	0.0070 (.733)	0.0254 (.193)	0.0240 (.542)		0.0119 (.569)		
(Bidder) Creditor Rights Index	-0.0090 (.202)	-0.0103 (.354)				-0.0107 (.332)	
(Target) Shareholder Rights Index	0.0442^a (.003)	0.0478^b (.015)	0.0508^a (.008)	0.0505^a (.001)			
(Target) Minority Shareholder Protection Index	0.0075 (.771)	0.0015 (.576)	0.0002 (.596)		0.0557^a (.005)		
(Target) Creditor Rights Index	0.0013 (.890)	0.0016 (.891)				0.0010 (.930)	
<i>Bidder and Target Firms' characteristics:</i>							
(Bidder) Q-ratio		-0.0130 (.212)	-0.0131 (.196)	-0.0128 (.198)	-0.0122 (.232)	-0.0109 (.322)	-0.0111 (.296)
(Bidder) Leverage		0.0655 (.777)	0.0437 (.844)	0.0041 (.984)	-0.0674 (.754)	0.0903 (.686)	0.0847 (.697)
(Bidder) Size (log TA)		-0.0041 (.759)	-0.0036 (.785)	-0.0029 (.822)	-0.0021 (.874)	-0.0036 (.798)	-0.0035 (.802)
(Bidder) Cash Flow/TA		-0.2838 (.343)	-0.3063 (.289)	-0.3223 (.237)	-0.3135 (.279)	-0.2952 (.323)	-0.2973 (.307)
(Target) Leverage		-0.0169 (.856)	-0.0018 (.984)	0.0190 (.832)	0.0429 (.643)	-0.0034 (.971)	0.0174 (.851)
(Target) Cash Flow/TA		0.1026 (.559)	0.1377 (.431)	0.1522 (.377)	0.1969 (.266)	0.1214 (.502)	0.1681 (.350)
(Target) Q-ratio		-0.0018 (.393)	-0.0018 (.382)	-0.0016 (.457)	-0.0015 (.489)	-0.0015 (.499)	-0.0015 (.481)
<i>Deal characteristics:</i>							
Equity Payment		-0.0929^c (.078)	-0.0938^c (.069)	-0.0942^c (.065)	-0.0989^c (.054)	-0.1054^b (.039)	-0.1067^b (.033)
Hostile Bid		0.0892 (.149)	0.1012^c (.093)	0.1021^c (.086)	0.0996^c (.099)	0.0895 (.142)	0.1021^c (.086)
M&A of 100%		0.1408^b (.015)	0.1430^b (.011)	0.1452^a (.009)	0.1545^a (.005)	0.1648^a (.001)	0.1682^a (.001)
Diversification		0.0832 (.264)	0.0864 (.253)	0.0862 (.250)	0.0864 (.253)	0.0806 (.170)	0.0841 (.257)
Relative Size		-0.0932 (.221)	-0.0929 (.219)	-0.0878 (.234)	-0.0904 (.227)	-0.0996 (.175)	-0.0989 (.174)
(Target) Run-up		-0.1043 (.177)	-0.1166 (.123)	-0.1160 (.120)	-0.1082 (.150)	-0.0791 (.263)	-0.0894 (.197)
<i>Bidder and Target Country characteristics:</i>							
Same Language		0.0117 (.342)	0.0094 (.760)	0.0076 (.563)	0.0084 (.702)	0.0009 (.987)	0.0214 (.426)
Common Border		-0.0056 (.572)	-0.0038 (.718)	-0.0043 (.745)	-0.0045 (.711)	-0.0066 (.424)	-0.0020 (.756)
(Target) log GNP per capita		-0.0018 (.342)	-0.0016 (.486)	-0.0021 (.505)	-0.0018 (.280)	-0.0012 (.798)	-0.0036 (.222)
Difference (Bidder-Target) log GNP per capita		0.0108 (.308)	0.0112 (.276)	0.0118 (.268)	0.0118 (.243)	0.0102 (.405)	0.0215 (.155)
(Target) Anti-Corruption Index		0.0033^c (.082)	0.0042^c (.078)	0.0040^c (.064)	0.0044^c (.057)	0.0025^c (.128)	0.0058^c (.018)
Intercept	-0.1060 (.307)	-0.0392 (.855)	-0.0795 (.675)	-0.1311 (.267)	-0.1030 (.569)	0.1026 (.189)	0.0619 (.201)
Heckman λ (Mill's ratio)	0.0027^a (.000)	0.0018^a (.000)	0.0018^a (.000)	0.0017^a (.000)	0.0018^a (.000)	0.0022^a (.000)	0.0031^a (.000)
Number of obs.	296	296	296	296	296	296	296
Adjusted-R ²	10.21%	14.97%	15.03%	13.76%	13.36%	8.11%	9.15%

Table 10. The impact of the corporate governance *spillover effect* on the target CARs in cross-border M&As.

This table reports the results of the OLS regression of the target CARs for the sample of cross-border takeovers. The dependent variable is the target CARs [-1, +1]. Variable definitions are given in Appendix I. Six different specifications are estimated. A Heckman sample selection is applied to correct for potential biases due to the target endogenous choice of participating in a cross-border (rather than domestic) takeover or not. We do not report the parameter estimates of the control variables, as they are similar to the ones reported in Table 9. The indicator 'Yes' denotes that a particular control variable is included in the regression and 'No' that it is not. Panel A reports the regression estimates of a *differences*-approach while Panel B reports the estimates of an *indicator*-variable approach. Variable definitions are given in Appendix I. For each variable we show the heteroskedasticity-consistent p-value. *a/ b/ c* stand for statistical significance at 1%/ 5%/ 10%, respectively. The number of observations is 296.

	(1)	(2)	(3)	(4)	(5)	(6)
PANEL A. A DIFFERENCES-APPROACH						
<i>Corporate Governance Regulation Effect:</i>						
(Target) Shareholder Rights Index	0.0612^a (.007)	0.0435^b (.020)	0.0463^b (.013)	0.0309^b (.018)		
(Target) Minority Shareholder Protection Index	0.0146 (.632)	0.0261 (.515)	0.0292 (.445)		0.0402^b (.025)	
(Target) Creditor Rights Index	0.0041 (.701)	0.0018 (.883)				0.0005 (.968)
<i>Corporate Governance Spillover Effect:</i>						
Diff (Bidder – Target) Shareholder Rights Index	0.0169^b (.017)	0.0189^a (.007)	0.0168^a (.002)	0.0113^a (.007)		
Diff (Bidder – Target) Minority Shareholder Protection Index	0.0070 (.733)	0.0159 (.529)	0.0096 (.670)		0.0016 (.928)	
Diff (Bidder – Target) Creditor Rights Index	-0.0089 (.202)	-0.0095 (.224)				-0.0092 (.228)
<i>Characteristics of the bidder and target, the M&A deal, and the bidder and target countries</i>	No	Yes	Yes	Yes	Yes	Yes
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Heckman λ (Mill's ratio)	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted-R ²	10.18%	14.83%	14.75%	14.08%	13.70%	10.02%
	(1)	(2)	(3)	(4)	(5)	(6)
PANEL B. INDICATOR-VARIABLE APPROACH						
<i>Corporate Governance Regulation Effect:</i>						
(Target) Shareholder Rights Index	0.0501^a (.003)	0.0295^b (.022)	0.0245^b (.030)	0.0144^b (.032)		
(Target) Minority Shareholder Protection Index	0.0076 (.794)	0.0231 (.573)	0.0142 (.716)		0.0246^b (.029)	
(Target) Creditor Rights Index	0.0117 (.247)	0.0026 (.824)				0.0041 (.700)
<i>Positive Spillover by Law/ Spillover by Control hypotheses (Spillover from Bidder to Target):</i>						
(Target) Shareholder Rights Improvement	0.0107^a (.007)	0.0111^a (.004)	0.0177^a (.000)	0.0229^a (.004)		
(Target) Minority Shareholder Protection Improvement	0.0301 (.415)	0.0264 (.508)	0.0248 (.539)		0.0256 (.519)	
(Target) Creditor Rights Improvement	0.0673 (.889)	0.0729 (.105)				0.0597 (.171)
<i>Bootstrapping hypothesis (Spillover from Target to Bidder):</i>						
(Bidder) Shareholder Rights Improvement	-0.0171 (.605)	-0.0069 (.854)	-0.0125 (.741)	-0.0125 (.733)		
(Bidder) Minority Shareholder Protection Improvement	0.0183 (.584)	0.0109 (.774)	0.0110 (.774)		-0.0086 (.816)	
(Bidder) Creditor Rights Improvement	0.0941 (.953)	0.1104 (.850)				0.1043 (.101)
<i>Characteristics of the bidder and target, the M&A deal, and the bidder and target countries</i>	No	Yes	Yes	Yes	Yes	Yes
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Heckman λ (Mill's ratio)	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted-R ²	11.71%	15.31%	15.53%	14.77%	12.99%	10.48%

Table 11. The impact of corporate governance *spillover* on the bidder CARs in full and partial acquisitions.

This table reports the results of the OLS regression of the bidder CARs for the samples of full and partial cross-border takeovers. The dependent variable is the bidder CARs [-1, +1]. Variable definitions are given in Appendix I. Four different specifications are estimated. A Heckman sample selection is applied to correct for potential biases due to the bidder endogenous choice of participating in a cross-border (rather than domestic) takeover or not. We do not report the parameter estimates of the control variables, as they are similar to the ones reported in Table 7. The indicator 'Yes' denotes that a particular control variable is included in the regression and 'No' that it is not. For each variable we show the heteroskedasticity-consistent p-value. *a/ b/ c* stand for statistical significance at 1%/ 5%/ 10%, respectively.

	M&A of 100% (Full Acquisitions)				M&A of less than 100% (Partial Acquisitions)			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
<i>Corporate Governance Regulation Effect:</i>								
(Bidder) Shareholder Protection Index	-0.0005 (.986)	-0.0006 (.734)	0.0004 (.942)		0.0030 (.422)	0.0017 (.518)	0.0000 (.995)	
(Bidder) Minority Shareholder Protection Index	0.0009 (.413)	0.0011 (.450)		0.0019 (.819)	0.0029 (.559)	0.0036 (.624)		0.0036 (.741)
(Bidder) Creditor Protection Index	0.0000 (.987)	0.0003 (.529)			0.0034 (.125)	0.0022 (.527)		
<i>Positive Spillover by Law/ Spillover by Control hypotheses (Spillover from Bidder to Target):</i>								
(Target) Shareholder Rights Improvement	0.0134^c (.081)	0.0178^b (.029)	0.0170^b (.022)		0.0130^c (.065)	0.0137^b (.037)	0.0140^c (.074)	
(Target) Minority Shareholder Protection Improvement	0.0059 (.639)	0.0132 (.378)		0.0097 (.487)	-0.0064 (.428)	0.0032 (.728)		-0.0035 (.968)
(Target) Creditor Rights Improvement	-0.0128 (.380)	-0.0056 (.752)			-0.0034 (.681)	-0.0014 (.904)		
<i>Bootstrapping hypothesis (Spillover from Target to Bidder)</i>								
(Bidder) Shareholder Rights Improvement	0.0128^b (.041)	0.0122 (.206)	0.0107 (.267)		0.0217^b (.014)	0.0290^b (.041)	0.0285^b (.028)	
(Bidder) Minority Shareholder Protection Improvement	0.0006 (.968)	0.0041 (.829)		0.0049 (.786)	-0.0022 (.788)	0.0013 (.927)		0.0076 (.556)
(Bidder) Creditor Rights Improvement	-0.0011 (.447)	0.0032 (.860)			0.0062 (.438)	0.0034 (.769)		
<i>Characteristics of the bidder and target, the M&A deal, and the bidder and target countries</i>	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Intercept	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Heckman λ (Mill's ratio)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	292	292	292	292	356	356	356	356
Adjusted-R ²	2.05%	4.05%	4.07%	3.27%	3.47%	4.29%	5.42%	3.59%

Table 12. The impact of corporate governance *spillover* on the target CARs in full and partial acquisitions.

This table reports the results of the OLS regression of the target CARs for the samples of full and partial cross-border takeovers. The dependent variable is the target CARs [-1, +1]. Variable definitions are given in Appendix I. Four different specifications are estimated. A Heckman sample selection is applied to correct for potential biases due to the target endogenous choice of participating in a cross-border (rather than domestic) takeover or not. We do not report the parameter estimates of the control variables, as they are similar to the ones reported in Table 9. The indicator 'Yes' denotes that a particular control variable is included in the regression and 'No' that it is not. For each variable we show the heteroskedasticity-consistent p-value. *a/ b/ c* stand for statistical significance at 1%/ 5%/ 10%, respectively.

	M&A of 100% (Full Acquisitions)				M&A of less than 100% (Partial Acquisitions)			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
<i>Corporate Governance Regulation Effect:</i>								
(Bidder) Shareholder Protection Index	0.0439^b (.021)	0.0261^c (.073)	0.0377^b (.036)		0.0376 (.035)	0.0239 (.050)	0.0400 (.022)	
(Bidder) Minority Shareholder Protection Index	0.0076 (.904)	0.0159 (.818)		0.0115^b (.042)	0.0174 (.398)	-0.0039 (.926)		0.0204 (.075)
(Bidder) Creditor Protection Index	0.0084 (.567)	-0.0014 (.928)			0.0098 (.342)	0.0100 (.484)		
<i>Positive Spillover by Law/ Spillover by Control hypotheses (Spillover from Bidder to Target):</i>								
(Target) Shareholder Rights Improvement	0.0356^a (.001)	0.0198^b (.045)	0.0173^b (.029)		0.0266^b (.043)	0.0194^b (.048)	0.0226^b (.034)	
(Target) Minority Shareholder Protection Improvement	0.0333 (.290)	0.0516 (.314)		-0.0235 (.715)	-0.0019 (.952)	-0.0111 (.768)		-0.0329 (.448)
(Target) Creditor Rights Improvement	0.0962 (.097)	0.0929 (.122)			0.0179 (.657)	-0.0308 (.587)		
<i>Bootstrapping hypothesis (Spillover from Target to Bidder)</i>								
(Bidder) Shareholder Rights Improvement	-0.0059 (.896)	-0.0141 (.765)	-0.0072 (.878)		-0.0284 (.427)	-0.0272 (.658)	-0.0214 (.673)	
(Bidder) Minority Shareholder Protection Improvement	0.0143 (.757)	0.0037 (.938)		-0.0049 (.917)	0.0259 (.465)	0.0250 (.672)		-0.0207 (.674)
(Bidder) Creditor Rights Improvement	0.0432 (.356)	0.0454 (.408)			0.0037 (.919)	-0.0466 (.409)		
<i>Characteristics of the bidder and target, the M&A deal, and the bidder and target countries</i>	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Intercept	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Heckman λ (Mill's ratio)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	121	121	121	121	72	72	72	72
Adjusted-R ²	12.13%	19.05%	18.34%	17.14%	13.73%	18.92%	20.14%	20.50%

About ECGI

ECGI is an international non-profit membership organisation that provides a platform for debate and dialogue among academics, policymakers, and business leaders, with a focus on major corporate governance, ESG, and stewardship issues.

The views expressed in this working paper are those of the authors, not those of the ECGI or its members.

www.ecgi.global

ECGI Working Paper Series in Finance

Editorial Board

Editor

Nadya Malenko, Professor of Finance, Boston College

Consulting Editors

Renée Adams, Professor of Finance, University of Oxford

Franklin Allen, Professor of Finance and Economics, Imperial London

Julian Franks, Professor of Finance, London Business School

Mireia Giné, Professor of Finance, IESE Business School

Marco Pagano, Professor of Economics, Facoltà di Economia Università di Napoli
Federico II

Series Manager

Asif Malik, ECGI Working Paper Series Manager

<https://www.ecgi.global/publications/working-papers>