



## **Transferring Investor Protection: A Determinant for Cross-Border Acquisitions**

Master Thesis

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This study provides empirical evidence on the value of investor protection in cross-border mergers and acquisitions. Using 929 observations for the period 1990-2015, and a revised index for shareholder protection, I find that a positive transfer in investor protection increases the propensity of managers engaging in cross-border acquisitions. Over the course of time the emphasis shifts from shareholder protection in the early period, to accounting standards in the late period as driver. Further, I find a premium for a transfer in shareholder protection and accounting standards; being consistent with the existing literature. Contributing to the literature, I find that growth stocks value shareholder protection, and value stocks accounting standards. This deems for future research, as I expect growth stocks to value both metrics for investor protection higher. Lastly, an important finding is that high sentiment significantly inflates the premium for accounting standards. Managers pay a 2.5 times higher premium compared to the full sample.

*Keywords:* Acquisitions; Cross-border; Corporate Governance; Investor Protection

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## I. Introduction

Today's news is dominated by foreign companies pursuing to acquire Dutch listed firms, either friendly or hostile. The phenomenon is driven by the conception that firms, like Unilever and AkzoNobel, are underperforming relative to their international peers. The companies are being accused of an abundant focus on sustainability, at the cost of its profitability. This results in hostile takeover attempts by respectively Heinz and PPG. According to the Dutch Corporate Governance Code<sup>1</sup>, the interests of all stakeholders ought to be represented by the board of directors, instead of solely the interest of shareholders. In addition, the corporate strategy should certify long-term growth and pursue continuation of the firm. Takeover defense mechanisms, like Unilever and AkzoNobel have in place, are measures to assure the protection of all stakeholders. Also, The Ministry of Economic Affairs responds on the recent tendency of foreign companies pursuing to acquire companies, by a legal proposition<sup>2</sup>, to enhance takeover defense mechanisms in The Netherlands. Takeover defense mechanisms and decreasing investor rights (investor protection) severely deteriorate firm value. This is caused by, amongst others, the accompanying protection for poorly performing managers, and decreasing likelihood of underperforming companies being targeted by competitors. Consequently, such stocks are less attractive for investors and will trade at a discount. If the legislation of Minister Henk Kamp will be implemented, Dutch listed stocks risk lower market valuations, referring as the 'Dutch Discount'. Moreover, in 2007 nearly 45% of all worldwide transactions are characterized as cross-border (Erel, Liao and Weisbach, 2012). These recent developments stress the relevance to further investigate the effect of investor protection on cross-border acquisitions.

Securities are not solely characterized by its intrinsic rights, such as, the right to vote or the right repossess collateral in the event of default. The legal rules of the jurisdiction where securities are issued are of great significance as well, and differ between nations (La Porta et al., 1997). Consequently, investor protection has an effect on the value of securities, and financial decision-making of firms. For example, there are relatively more companies that go public each year in the United States compared to Italy. Also, Russian firms nearly have no access to external financing due to their legal structure (La Porta et al., 1998). From an Coasian perspective, each firm can privately negotiate and contract on the preferred level of investor protection. However, empirical evidence shows that almost all public companies, merely provide the default level of investor protection offered by a country's jurisdiction. Following an acquisition of 100% of the

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<sup>1</sup> The revised Dutch Corporate Governance Code of December 2008

<sup>2</sup> In May 2017 The Minister of Economic Affairs Henk Kamp proposes a legally binding time-out of a year in the case of hostile takeover attempts The time-out should enable corporate managers to better assess the hostile offer for all stakeholders, and convince shareholders of the current corporate strategy in place (Het Financieele Dagblad, 23 May 2017).

shares, a change in the target firms' nationality inevitably takes place. The merger effectively changes the level of protection offered for investors of the target company.

Strong investor protection can be associated with many other affairs in financial systems. For instance, financial systems with strong investor protection have (1) higher number of listed companies, (2) larger listed firms in terms of sales and assets, (3) higher merger activity, (4) lower ownership concentration, (5) higher dividend payouts, (6) companies with higher market-to-book ratio's, and consequently (7) higher market valuations (La Porta et al., 1998; La Porta et al., 2000; Klapper & Love, 2004). Previous studies already show that accounting standards are a driver for cross-border mergers, and that investor protection is valued in the merger premium (Rossi & Volpin, 2004; Bris & Cabolis, 2008; Erel et al., 2012).

Furthermore, various studies indicate that corporate governance measures have an impact on the market valuations of firms, however differing per industry. In example, Akhigbe and Martin (2006) find that the Sarbanes-Oxley Act increases the market valuation of firms in the financial services industry. This is attributed to the improved monitoring of the relative opaqueness of the sector. Miller (1977) states that opaqueness does not necessarily impair a firm's market valuation. High uncertainty implies that every investor has different expectations, decreasing the kurtosis. As the share price is mostly determined by optimistic forecasts, the firm's valuation increases. Conclusively, investor protection is valued differently among different types of firms. Also, not all firms are expected to be similarly subjective to sentiment than others. Therefore, the Investor Sentiment Theory of Baker and Wurgler (2006) predicts to be related to corporate governance and investor protection.

The objective of this study is five-fold. First, with respect to investor protection as driver for cross-border acquisition, I contribute to the literature by using an increased number of metrics for investor protection. Second, I study the premium of a transfer of shareholder protection using an extended period, and apply the revised Antidirector Rights Index of Djankov et al. (2008). Third, using the same extended period, I investigate the transfer of accounting standards on the premium in cross-border mergers. Fourth, I predict that the premium for a positive transfer in investor protection is valued differently in growth stocks than in value stocks. Conclusively, this is the first study to link investor sentiment to the effect of investor protection on cross-border merger premiums.

To establish a comprehensive study on investor protection, I conduct a logit and multivariate regression analysis. The period of interest is from January 1990 to January 2015. I include all mergers where both target and acquiring firm are publicly listed. After merging data on acquisitions from Thomson One Banker, and firm-and stock price information from Datastream, I remain with a sample of 929 cross-border and 2,956 domestic observations. Following the methodology of Bris and Cabolis (2008), there are four variables for investor

protection; (1) shareholder protection, (2) accounting standards, (3) creditor protection, and (4) control of corruption. To test the effect of a transfer in investor protection on the merger premium, I first perform an event study. I use the target BHCARs as proxy for the merger premium, being customary in finance literature (Schwert, 2000). In the multivariate regression analysis, I control for deal-, firm-and country specific variables. For the level of investor sentiment, I use Baker and Wurgler's (2006) index which is updated every year.

I find that a positive transfer of investor protection increases a manager's propensity to engage in a cross-border merger. Over the course of time, the emphasis in the target selection shifts from shareholder protection to accounting standards. Potentially this is caused by the Sarbanes-Oxley Act being effective from January 2005 onwards. Furthermore, managers pay a significant premium for a positive transfer of accounting standards. And, the premium for shareholder protection still exists using the revised ADRI index. Another important finding is that shareholder protection is highly valued in growth stocks, whereas accounting standards is of significance in value stocks. This lays ground for future research. Conclusively, there is reason to believe that investor sentiment critically influences the premium for investor protection. In periods of low sentiment, there exists no premium anymore. In periods of high sentiment, managers tend to inflate the consolidation in accounting standards, resulting in a 12% higher premium when a consolidation takes place from US GAAP to IFRS.

This paper proceeds as follows. Section II discusses all relevant literature relating to corporate governance and investor protection in cross-border mergers, and I develop the research hypotheses. Section III describes the construction of the sample and operationalization of the metrics for investor protection. Section IV presents the methodology used for testing the hypotheses. Following, section V provides an overview of the results and interpretation following of the analysis, and section VI concludes the findings. Finally, section VII discusses the limitations of this study, and gives recommendations for future research.

## **II. Theoretical Framework**

The following section summarizes the theory and most important articles associated with investor protection. More particular, I review the corporate governance literature and accounting standards related to cross-border mergers and acquisitions. Based on the existing literature I formulate the main hypotheses of this study.

### **2.1 Transfer of investor protection**

According to the classical view in finance, securities can be defined by their cash flows (Modigliani & Miller, 1958). Equity owners have claims on future profits of a firm, in the form of

dividends, and debt holders have rights on a fixed stream of interest payments. This, however, is an incomplete view of the features various securities hold, and therefore what kind of value each security has for its owner. For example, an equity provider has the right to vote for the board of directors, whereas a debt provider has the ability to repossess collateral in the event of a bankruptcy. These rights are becoming essential in the case of expropriation by insiders. It enables investors to secure and extract their returns from the business. In theory, a shareholder receives dividends because it has the capability to vote out directors that are not willing to pay out, and debt holders receive interest payments because they have the ability to reclaim their collateral.

Even the perspective that securities are solely characterized by its intrinsic rights is an incomplete picture. It ignores the legal rules of the jurisdiction where these securities are issued. Investor protection is reflected by the legal rules and quality of their enforcement within a jurisdiction (La Porta et al., 1997). This differs greatly and systematically around the world. In this study I will examine whether these differences is a motivator for cross-border acquisitions, how they are valued, and if this has changed over time. Examples of a firm enhancing investor protection are: (1) improving disclosure, (2) selecting well-functioning and independent board, or (3) imposing disciplinary mechanisms (Klapper & Love, 2004). There are numerous of examples where the legal structure has a significant impact on the financial decision-making of investors or firms. For example, there are far more US companies that go public each year compared to Italy. Also, the fact that Russian companies nearly have no access to external financing is traced back to their legal structure (La Porta et al., 1998).

These real-life examples are a contradiction of the Coasian perspective, describing the economic allocation in an economic efficient world. In the absence of significant transaction costs, capital providers and seekers should be able to privately negotiate and contract on the efficient level of investor protection, when that level is not serviced by the law. In theory, this results in levels of investor protection that is efficient across all jurisdictions, making the degree of investor protection provided by the law negligible (Bergman & Nicolaievsky, 2007). It is likely that jurisdictions offering low investor protection, are also less capable of negotiating contracts enhancing the protection of investors. With the use of a dataset containing only Mexican firms Bergman and Nicolaievsky (2007) make some noteworthy findings. Over half of the public companies negotiate on privately held contracts significantly improving the protection for their investors. For public companies this is considerably less. Nearly all firms merely provide the default level of investor protection offered by the legal regime. Thus, there is need for additional contractual enforcement but this is somehow not provided in public companies.

The discrepancy can be accredited to investors differing in their ability to enforce precisely filtering contracts. There are two types of complications which can occur in the

negotiation process of contracts. First, there is risk of expropriation but an investor is not protected, an under-inclusion problem. Secondly, the case of over-protection where a contract prevents a company from taking an investment decision, an over-inclusion problem. Both situations result in companies not taking efficient actions. Once an over-inclusion situation occurs, investors should be able to renegotiate contracts to finally achieve an efficient outcome. However, in publicly traded companies the number of investors is prohibitively large to allow for successful renegotiations. Over-inclusion problems related to imprecisely filtering contracts will survive. As a result, firm insiders have the incentive to avoid over-inclusion, and would rather prefer under-inclusion, as we can see in public companies. The level of investor protection offered in public companies is therefore closely related to the legal rules of the jurisdiction where the firm is located (Bergman & Nicolaievsky, 2007). This is essential for this study as I investigate the relationship between a countries' investor protection and cross-border mergers and acquisitions of public firms.

In order to test the effect of investor protection on cross-border acquisitions, it must be clear whether a transfer of investor protection has taken place. Since financial law is beyond the scope of this study I will follow the theory of Bris and Cabolis (2008). A cross-border merger involves both the change in nationality, as well as the corporate law or commercial code applicable to the target firm. In general, the law applicable to a firm is determined by the law of the country of nationality of the company. The nationality of the shareholders, location of the firm's operations, or place of the firm's assets are irrelevant (Horn, 2001). Therefore, the method of payment for the merger has no influence on the nationality of the new entity. In a cash-for-stock acquisition the acquiring shareholder will fully become the shareholder of the new entity. Conversely, in a share-for-share purchase some of the target shareholders will become shareholders of the newly formed entity as well. In both scenarios, the nationality of the target firm in a cross-border merger will change. It must be cited that in some cases the principle of *extraterritoriality* can be applied, exempting a company from employing local law. However, the rule cannot be used in a cross-border merger when the acquirer gains 100% of the shares of the target (Bris and Cabolis, 2008). Given this information, I am able to investigate whether the transfer of investor protection can be a driver for cross-border acquisitions. The first hypothesis posits:

*H1: An acquiring firm from a country with stronger investor protection has a higher propensity to engage in a cross-border merger compared to firms from countries with poor investor protection.*

## 2.2 Cross-border acquisitions and financial markets

Theoretically there are three motivations for cross-border mergers: (1) mode of entry in a foreign market, (2) dynamic learning process from a foreign culture, and (3) value-creating strategy (Shimizu et al., 2004; Bruner, 2004). When considering a cross-border acquisition a firm takes into account various conditions which can be separated in country-, industry- and firm-level characteristics. Main determinants on a firm-level are intangible assets and resource-based capabilities as cross-border acquisitions are pursued to expand the knowledge base of the firm (Vermeulen and Barkema, 2000).

On a country-level, it is proven that the exchange rate between bidders and targets is of significance. Erel et al. (2012) shows that the exchange rate tends to appreciate in the months prior to the merger, confirming that the exchange rate is a driver for cross-border acquisitions. Furthermore, the likelihood of acquiring a firm in a nearby country is significantly higher compared to a country further away. Other factors that can be of importance are labor, resources and institutional variables like political, cultural or the legislative environment (Shimizu et al., 2012). An example of the last are governance-related differences across countries. Bris and Cabolis (2008) find that better shareholder protection and accounting standards in the acquiring country result in higher premiums in cross-border acquisitions compared to domestic acquisition. Investors are prepared to pay more for an asset or security as they realize that a higher fraction of a firm's profit will be retrieved via interest or dividends. Studies show that better investor protection and corporate governance leads to higher dividend payouts (La Porta et al., 2000; La Porta et al., 2002). Consequently, firms in countries with better corporate governance mechanism, are valued higher.

Moreover, legal protection of outside shareholders has a positive impact on financial systems of countries. It leads to more valuable capital market in terms of size and extent, higher number of listed firms, and larger listed firms measured in sales or assets (La Porta et al. 1997). Also, La Porta et al. (1998) find that ownership concentration in the largest publicly traded firms are negatively related to investor protection; high ownership concentration in systems with poor investor protection. As well, financial markets with better investor protection brings forth companies with market-to-book ratio's. Klapper and Love (2004) find that governance can be associated with asymmetric information, contracting imperfections and operating performance. This relation is even stronger in countries with weaker legal systems. Conclusive, investor protection offered by a nation matters significantly for the development of its financial markets.

Rossi and Volpin (2004) study the effects of investor protection on the merger activity in a country. They find that merger volume increases significantly in regimes with stronger investor protection. This can be explained by acquirers being able to identify targets more easily due to



better accounting standards and financial disclosure. Higher premium in countries with stronger investor protection supports this view. From a different perspective, you can argue that firms with poor investor protection can become the targets of companies with strong corporate governance in place. In this way, Coffee (1999) predicts that a convergence of corporate governance takes place. The study of Rossi and Volpin (2004) provide evidence for this prediction. However, the results do not show an additional premium paid by acquiring companies from countries with higher investor protection. Conversely, a more recent study from Bris and Cabolis (2008) does find that positive relation between the merger premium and investor protection. Also, Erel et al. (2012) find support for the statement that investor protection is a driver for acquisitions. Acquirers more often come from developed countries and acquire firms with lower accounting standards. This study broadens earlier work by examining additional metrics for investor protection, hereby using a revised index for shareholder protection, and adopting an extended period.

### **2.3 Improving investor protection**

In essence, corporate governance is a structure or set of mechanisms in order to prevent insiders from expropriating outside investors, minority shareholders and creditors. Insiders are in general classified as managers and controlling shareholders. Without any corporate governance in place, outside investors run the risk of never materializing returns (La Porta et al., 2000). There are many ways how expropriation can take place. The most direct form of expropriation is insiders simply stealing firm profits. Indirectly, managers may choose to invest in low or negative NPV projects creating an opportunity for expropriation, e.g. facilitating related-parties to expropriate outside investors. This type of expropriation has proven to be the foundation for the Asian financial crisis. In East Asia, business ownership is predominantly held by families, and business groups also being controlled by politically powerful families. The expropriation took place under the veil of family loyalty and long-term relationships, principles symbolic for the Asian culture. As a consequence, there was a massive pile up of unrepayable debt (Faccio, Lang & Young, 2001). This business structure also lays ground for overpaid or unqualified managers. Also having the ability to result in severe agency costs.

In other instances, expropriation may occur due to managers engaging in 'empire building', originating from the classical agency theory (Jensen & Meckling, 1976). It describes the misalignment between ownership and control. More specifically, managers having an excessive taste of running large companies instead of profitable ones, and therefore overinvesting.

Investor protection can also influence insiders' earnings management behavior. Healy and Wahlen (1999) define earnings management as the adjustment of the financial performance being reported in order to mislead contractual agreements, outsiders or other stakeholders.

Managers and controlling shareholders have the incentive to camouflage the actual performance and to hide their private control benefits. In example, they can overstate the earnings, or smooth the them over a given period. Leuz, Nanda and Wysocki (2003) find that investor protection is a key driver of earnings management activity around the world. Stronger protection for minority shareholders and outsiders restrict insiders from acquiring private control benefits, and mitigate them from engaging in earnings management.

All the above findings stress the relevance of strong corporate governance mechanisms and investor protection. Poor shareholder protection can significantly impact the retrieved returns from an investment. The second hypothesis of this study is:

*H2: An acquiring firm from a country with stronger investor protection relative to the investor protection of the nationality of the target firm is prepared to pay a higher merger premium.*

There are several ways to improve corporate governance mechanisms within firms. Various studies suggest that managerial monitoring by outside directors significantly reduces agency costs associated with the separation of ownership and control. The appointment of an outside director has a significantly positive effect on the market valuation of a firm (e.g. Morck, Shleifer & Vishny, 1988; Rosenstein and Wyatt, 1990). Defond et al. (2004) find that the addition of a financial expert to the audit committee of a firm increases the quality of disclosure, resulting in higher market valuation. All theories are in line with the agency cost hypothesis. Improvement of managerial monitoring and disclosure result in higher valuation.

A different way of monitoring is shareholder activism, generally provided by institutional investors. Shareholders with a long-term investment horizon tend to be more engaged with a firm's corporate governance structure or strategy. A recent survey study supports the literature about corporate governance. Investors which are relatively less concerned about stock liquidity, and with a longer investment horizon intervene more heavily compared to short-term investors (McCahery, Sautner & Starks, 2016). Additionally, institutional investors are more focused on cross-border portfolio investments compared to local shareholders. Last decade, anecdotic evidence from two major M&A deals shows that firms with a high proportion of foreign institutional shareholders are more likely to be in favor of a cross-border transaction. Both the acquisition of Mannesmann by Vodafone and the acquisition of ABN AMRO by a consortium led by the Royal Bank of Scotland are driven by foreign institutional investors (Kedia, 2001; Economist, 2007b). This can be explained by three reasons: (1) foreign institutional investor being less likely to fall for familiarity bias (e.g. distance, culture or language), (2) large foreign institutional presence helps to mitigate the free-rider problem which may occur in firms with dispersed ownership structures, (3) domestic institutional investors are more likely to have business relations with local firms, more encumbered by ties with management or private

benefits (Ferreira, Massa & Matos, 2009). It appears that the effect of foreign investors on cross-border mergers is stronger in countries with weaker investor protection.

Another solution to overcome expropriation by means of monitoring is by enhancing the financial disclosure of a firm. Hope and Thomas (2008) investigate the managers' propensity to overinvest with respect to the disclosure of geographical earnings. The Statement of Financial Accounting Standards No. 131 (SFAS 131, FASB [1997]) states that the financial disclosure of geographic earnings is no longer obligated for all firms. When operating segments are defined other than geographic segments, disclosure becomes voluntary. It becomes harder for shareholders to monitor a manager's investments in relation to foreign operations. Agency theory predicts that managers would engage in 'empire building' more excessively relative to the pre-SFAS 131 period. The results of Hope and Thomas (2008) are consistent with the hypothesis. As a consequence from the nondisclosure of geographic earnings, they find both a significant increase in foreign sales growth and a significant decrease in foreign profit margin. Moreover, the overall firm value of firms that opt out of disclosing are lower relative to those firms that disclose post-SFAS 131 (Hope & Thomas, 2008).

The consolidation of financial figures is an important aspect in cross-border mergers and acquisitions. In the case that a firm acquires 100% of the shares in a cross-border merger, inevitably consolidation takes place. By default, the newly formed entity uses the accounting standards of the country of nationality of the acquirer. In other events where less than 100% of the shares is acquired, the legislation differs per accounting standard. For instance, the US Generally Accepted Accounting Principles (GAAP) requires to consolidate in acquisition involving more than 50% of the voting shares. The International Accounting Standards (IAS) has different requirements with respect to consolidation. Here a change in control triggers the consolidation, which can differ from a 50% acquisition of shares. (Bris & Cabolis, 2008). However, in this study I only include firms acquiring 100% of the shares bypassing the deal-specific contractual agreements.

The Sarbanes-Oxley Act of 2002 emphasizes a worldwide convergence in accounting standards, independent audit committee, financial expertise within the audit committee and improvement of the timing and quality of disclosures. It intends to increase the quality of financial reporting and to restore investor confidence in listed firms. In September 2002, the European Parliament enacted a law on the application of IAS, Regulation (EC) No. 1606/2002. The law requires all publicly traded companies in the European Union, including banks and insurers, to report their financial statements in accordance with the International Financial Reporting Standards (IFRS) starting from January 1, 2005. Firms with a dual-listing on a regulated market outside the EU already using a different internationally accepted standard (e.g. GAAP) are exempted until January 1, 2007 (EC, 2002). The exemption also counts for companies having

issued solely debt instruments. Because of the IAS regulation, the quality of financial disclosure and corporate governance is expected to improve, the barriers for cross-border mergers to be eliminated, and market efficiency to have increased (Jermakowicz & Gornik-Tomaszewski, 2006).

Both the amendments in SFAS 131 and IAS accentuate the impact of accounting principles on firm decision-making. Therefore, I study the transfer of accounting standards more thoroughly. Based on the above literature I formulate the third hypothesis accordingly:

*H3: An improvement of accounting standards for the target company in a cross-border merger is valuable and priced in the merger premium.*

## **2.4 Investor protection by value and growth stocks**

Earlier research from Akhigbe and Martin (2006) shows that the Sarbanes-Oxley legislation has a positive impact on the valuation of firms in the financial services industry. Banks, insurance companies and dealers have a relatively high degree of opacity. Due to financial innovations and complex contractual agreements the banking and insurance sector has become less transparent for investors. This indicates that transparency and the ability to monitor firms, differ per industry. Accordingly, the legislation implemented because of the Sarbanes-Oxley Act has a different impact on each sector. Business segments already sufficiently transparent, may even experience negative valuation effects due to the additional compliance costs. Other industries sensitive to financial regulation are sectors with high capital and R&D expenditures.

Firms increasing its capital and R&D expenditures do not necessarily result in higher market valuations; it may not be spent efficiently. Chung, Wright and Kedia (2003) investigate the relation between the corporate governance structure of a firm and the market valuation of capital and R&D expenditures. They find that, analyst following and board composition critically influence the market valuation of a firm's capital and R&D expenditures. Companies with such expenditures have potentially high agency costs and need to be monitored closely. Therefore, I expect that companies with high capital and R&D expenditures highly value an increase in investor protection.

There are two different types of stocks; value and growth stocks. Growth stocks are characterized by high book-to-market ratios and high dividend yields. Value stocks are characterized by low book-to-market ratios, usually not paying dividends. Generally, growth stocks prefer to reinvest their retained earnings into research and development further fueling expansion. Thereupon, growth stocks can be classified as stocks which are harder to value, as most of its value is derived from future projected earnings. From this follows the value premium of Fama and French (1998). They find that value stocks are typically mature companies; with low investor attention and an undervaluation. Whereas growth stocks are overvalued and realizing

lower returns.

Combining the value premium theory of Fama and French (1998) with agency theory, I formulate the following hypothesis:

*H4: A positive transfer of investor protection is valued higher in (growth) stocks with high capital and R&D expenditures relative to (value) stocks with low capital and R&D expenditures.*

Miller (1977) contradicts the believe that opaqueness necessarily impairs a firm's market valuation. In a world with high uncertainty, investors are characterized by heterogeneous expectations. Uncertainty implies that every investor has different expectations about the risks and returns associated with the investment. In a market with short-selling restrictions, the investors eventually buying the stock value the firm most positively. Investors with pessimistic forecasts will consequently not be incorporated in the pricing of the stock. An increase in uncertainty automatically results in a greater divergence between optimistic and pessimistic valuation forecasts. Therefore, the investors buying the stock are the ones with the most optimistic forecast, pushing the stock price up and driving the returns down. More recently, Chen, Hong and Stein (2002) find that the depth of ownership is negatively related with future returns indicating a high valuation relative to fundamentals. To my knowledge, this is the first study to investigate the effects of value and growth stocks on the merger premium in a transfer of investor protection.

## **2.5 Interaction between investor protection and investor sentiment**

Another contribution to the existing literature is that I try to examine whether there is an interaction effect between investor protection and investor sentiment in cross-border mergers and acquisitions. The Investor Sentiment theory rests on the believe that investors and market reactions are not driven by fundamentals but by beliefs, creating a mispricing. A period of overpricing can be defined as a period of high investor sentiment. Conversely, a period of underpricing is defined as a period of low investor sentiment. According to Baker and Wurgler (2006), a mispricing is the result of both an uninformed demand shock and constraint in arbitrage resulting in broad cross-sectional effects. Some firms are more subjective to sentiment-driven demand than others. The least transparent and costliest firms to arbitrage are the most prone to investor sentiment. This is where I link investor sentiment with investor protection. Firms located in regimes with poor investor protection are inherently companies with less transparency and consequently harder to value. Therefore, it can be expected that financial systems with poor investor protection are more sensitive to sentiment.

Also, in firms with poor investor protection, managers are more likely to engage in in value-destroying mergers, occurring in periods of overpricing. This theory is related to the

market timing theory. It refers to the practice of issuing stocks in periods of overpricing and share repurchases in periods of underpricing. This means that mispricing in stock markets influences the capital structure of firms. Misallocation of capital is more likely to occur when mispricing is relatively long, shareholders have a short investment horizon and when assets are more difficult to value.

In addition, firms with abundant capital resources are more likely to engage in negative NPV projects (Baker, Stein and Wurgler, 2003). This comes from the believe that managers are incompetent when they refrain from investing. They are not able to identify good investment opportunities. To avoid this misconception, managers are more prone to invest in negative NPV projects rather than to refrain from investing. Alternative studies find that retained earnings are a bigger source for the funding of investments compared to equity issuance. Accordingly, there ought to be an alternative channel affecting firm investment decisions. Polk and Sapienza (2009) find that stock mispricing also has an impact on firms' investment decisions, even when it is not financed with equity. This can be explained from a behavioral perspective, the catering theory. Managers with a short investment horizon have the incentive to boost short-run stock prices by catering to current sentiment. Companies with abundant capital resources and stock overpricing may waste their resources in negative NPV projects, while companies with stock underpricing may refrain from investing in positive NPV projects. In conclusion, besides the equity issuance channel investor sentiment (through the catering channel) influences managers from taking inefficient investment decision.

In this study, I examine whether there is an interaction effect between investor sentiment and investor protection in cross-border mergers and acquisitions. The catering theory states that firms are more sensitive to investor sentiment when assets are harder to value, and a higher degree of information asymmetry exists between inside and outside investors. When extending the catering theory, investor sentiment is expected to be more extreme in countries with poor investor protection or accounting standards. In those countries, I expect to observe relatively large differences in announcement returns between periods of low and high investor sentiment. Hypothesis five posits:

*H5: The acquirer's nation level of investor protection influences the effect of investor sentiment on the merger premium in a cross-border acquisition.*

### **III. Data**

In the next section I describe how the dataset is constructed and provide the sample distribution which is used in this study. Following, I elaborate more thoroughly on the metrics for investor protection, and describe how investor sentiment is quantified.

### 3.1 Initial sample

In this study, the main source of data is the Thomson ONE Banker (TOB) database. I gather the information of all completed mergers and acquisitions of publicly traded companies in the period between January 1990 and January 2015. The obtained data comes from all available countries as I try to examine the influence of investor protection in cross-border acquisitions. The dataset excludes leveraged buyouts, spin-offs, recapitalizations, minority interest acquisitions and privatizations. The initial dataset from Thomson One consists of 14,572 merger announcements of which 3,146 are cross-border.

The Thomson One Banker database provides detailed information on deal-and firm characteristics, of both the target and acquiring firm. To perform the event study, I merge the TOB deal characteristics database with stock price and firm characteristics data gathered from Datastream (TOB+Datastream sample). Some of the observations from the original TOB database are now eliminated due to the absence of either the share price or accounting standards. The data on accounting standards is needed to test the main hypotheses. Share price data is needed for the event study to determine a merger premium.

Table I summarizes the construction of the sample in this study. The initial sample contains all mergers announcements worldwide recorded by TOB where both the acquirer and target is public. There are 3,146 cross-border and 11,426 domestic observations. The median size in terms of total assets for cross-border target companies is \$263.9 million and \$222.0 million for domestic targets. The median of cross-border acquirers is also larger compared to domestic acquirers, \$3,710.1 million versus \$1,451.4 million. When I merge the TOB dataset with Datastream, the remaining sample contains 929 cross-border and 2,956 domestic acquisitions. Table I shows that the median total assets of cross-border targets in the TOB+Datastream sample increases relative to the initial dataset, from \$263.9 million to \$285.6 million. Similarly, the median total assets of cross-border acquirers increase from \$3,7 billion in the TOB sample to \$4,7 billion in the TOB+Datastream sample. For domestic acquisitions, I see comparable effects resulting from the merging datasets. Additionally, the two-sample Kolmogorov-Smirnov test for equality of distribution functions shows that the distribution of total assets is statistically different in both datasets. A D-statistic close to zero indicates that the two samples are more likely to be drawn from the same distributions. For all four groups; cross-border acquirers and targets, and domestic acquirers and targets I observe an increase in total assets of the sample significant at a 1% level.

**Table I**  
**Construction of the sample**

The initial sample consists of all domestic and cross-border announcements recorded by Thomson One Banker between January 1990 and December 2014. Only completed deals are incorporated in the dataset, where both target and acquirer are publicly listed companies. Furthermore, I exclude from the sample: leveraged buyouts, spin-offs, recapitalizations, minority interest acquisitions and privatizations. I then merge the TOB sample with stock-and firm characteristics data from Datastream and drop all observations without accounting or share price information (TOB+Datastream sample). At last, I identify for each cross-border merger left in the TOB+Datastream sample a similar domestic merger based on the following criteria: the target companies have similar two-digit SIC code, the target company belongs to the same country, the domestic announcement is within two years of the cross-border merger, and the market value of the domestic merger is the closest in size to the cross-border merger. The matched pairs sample includes only those cross-border mergers for which a matching domestic merger could be identified. The table summarizes the Total Assets of each sample during the construction of the dataset. Tests of differences are based on nonparametric Kolmogorov-Smirnov test.

	Cross-border mergers					
	Initial TOB sample		TOB+Datastream sample		Matched pairs sample	
	Target	Acquirer	Target	Acquirer	Target	Acquirer
Number of acquisitions	3,146		929		400	
Total assets (\$Mil) at t=0						
Mean	\$ 4,189.0	\$ 46,579.1	\$ 4,389.2	\$ 66,389.0	\$ 4,161.2	\$ 62,211.2
Median	\$ 263.9	\$ 3,710.1	\$ 285.6	\$ 4,686.6	\$ 199.5	\$ 4,062.6
Min	\$ 0.0	\$ 0.0	\$ 0.0	\$ 1.7	\$ 0.2	\$ 1.7
Max	\$ 612,287.6	\$ 3,372,997.4	\$ 612,287.6	\$ 3,372,997.4	\$ 612,287.6	\$ 3,372,997.4
Std dev	\$ 24,491.7	\$ 200,866.5	\$ 25,175.4	\$ 262,920.2	\$ 32,046.3	\$ 286,834.8
Test of diff with initial TOB sample (p-value)			0.1183*** (0.000)	0.0318*** (0.002)	0.1734*** (0.000)	0.051*** (0.005)
	Domestic mergers					
	Initial TOB sample		TOB+Datastream sample		Matched pairs sample	
	Target	Acquirer	Target	Acquirer	Target	Acquirer
Number of acquisitions	11,426		2,956		400	
Total assets (\$Mil) at t=0						
Mean	\$ 3,999.7	\$ 17,926.4	\$ 4,210.4	\$ 19,706.9	\$ 4,876.6	\$ 23,910.9
Median	\$ 222.0	\$ 1,451.4	\$ 224.7	\$ 1,784.4	\$ 250.2	\$ 2,557.9
Min	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 1.1	\$ 1.1
Max	\$ 1,234,293.5	\$ 2,414,488.6	\$ 1,234,293.5	\$ 1,817,943.0	\$ 273,181.6	\$ 1,022,932.5
Std dev	\$ 33,277.5	\$ 87,254.6	\$ 35,091.8	\$ 83,179.5	\$ 21,307.4	\$ 81,992.5
Test of diff with initial TOB sample (p-value)			0.1519*** (0.000)	0.0259*** (0.014)	0.1890*** (0.002)	0.0298*** (0.012)

\*\*\*, \*\*, \* indicate significance at 1% percent, 5%, and 10% levels, respectively



### **3.2 Matching pairs**

The main goal of this study is to analyze the transfer of investor protection in cross-border mergers and acquisitions. It is essential to isolate the true effects of these changes. This study follows the methodology used by Bris and Cabolis (2008) by constructing a final sample. In this final sample cross-border mergers from the initial dataset are matched with similar domestic mergers. The matching is intended to correct for variables influencing cross-border announcement returns, other than investor protection, the variable of main interest. Following, I examine the cross-border premium relative to the domestic premium.

The domestic deals are selected with use of the following criteria: (1) the announcement is within one years from the cross-border merger; (2) the target firm in the domestic deal is from the same country and industry as the cross-border deal (2-digit SIC code); (3) the target company in the domestic merger is not identical to the target firm in the cross-border merger; (4) the target company in the domestic deal is closest to the target company in the related cross-border deal in terms of total assets.

As a result, from the selection of matching domestic merger some of the observations form the initial sample are dropped. The amount of cross-border acquisitions drops from 929 to 400 observations. There are various reasons for the absence of a matching domestic merger. When there is solely one merger in a particular period, sector, country, and when there is no matching target firm with a similar size the observation gets dropped. The final sample with matching mergers adhering to the aforementioned requirements sums up to 400 domestic and cross-border mergers.

The median size in terms of total assets of cross-border targets decreases from \$285.6 million to \$199.5 million. Conversely, the median size of domestic targets increases from \$224.7 million to \$250.2 million. The process of matching pairs shows similar effects for acquiring companies; a decrease in size for cross-border acquirers and increase for domestic acquirers.

### **3.3 Description of the data**

Both the cross-border observations in the TOB+Datastream and matched pairs sample is well geographically diversified. In the TOB+Datastream the cross-border target companies originate from 67 different nations and acquirers from 58 nations. Most of the target companies come from the United States (163 out of 929, or 18%) and Australia (95 out of 929, or 10%). The sample contains 43 acquisitions in Africa, 58 Latin America, 301 Europe, 176 Asia, 106 Oceania and 228 in the United States. As result from the matching process the Matched Pairs sample contains fewer nationalities. The cross-border targets originate from 34 different countries and acquirers from 43 countries. Most target still originate from the United States (141 out of 400, 35%) and

Australia (65 out of 400, 16%). The final sample contains 7 acquisitions in Africa, 6 Latin America, 87 Europe, 63 Asia, 65 Oceania and 172 from North America. Table III provides a more accurate view on the nationalities of the cross-border target companies.

Table II displays the difference between acquiring and target companies, as well as cross-border and domestic acquisitions in both samples. The firm-specific accounting information is gathered from Datastream where I consider firms' (i) total assets, (ii) Tobins Q, (iii) sales to total assets, (iv) return on assets (ROA), (v) cash flow to sales, and (vi) investment to assets. The Tobins Q ratio is computed as the market value of common equity minus the book value of common equity, plus the total assets, divided by the total assets. All accounting variables are given in the year of the acquisition announcement. Differences are based on the Wilcoxon-matched-pairs signed-rank test.

When examining the TOB+Datastream sample in Table II, it can be noted that cross-border acquirers are significantly larger compared to domestic acquirers (\$4,7 billion versus \$1,8 billion). Additionally, all five other accounting variables are significantly higher for cross-border acquirers compared to domestic acquirers. All significant at a 1% level, except the sales to total assets ratio which is significant at a 10% level. With respect to target companies, cross-border targets are significantly larger than domestic targets (\$285.6 million versus \$224.7 million). Similar as I notice in cross-border acquisitions, almost all accounting variables are larger for the acquirer at a 1% level compared to the target. Apart from the sales to total assets ratio and investments to assets ratio, being not significant at all. Further, note that that cross-border acquirers are 16.4 times larger than its target compared to domestic acquirers only 7.9 times larger.

Considering the matched pairs sample, the matching procedure seems fairly efficient. When examining target companies, cross-border and domestic targets only significantly differ in total assets (\$119.5 million versus \$250.2 million) and Tobins Q (a ratio of 1.45 versus 1.75). Domestic targets show higher total assets and Tobins Q compared to cross-border targets, where in the TOB+Datastream this was reversed. Cross-border acquirers are still larger than domestic acquirers (\$4.0 billion versus \$2.5 billion). All other accounting variables are similar, except the return on assets. The return on assets of domestic companies is significantly higher compared to domestic companies at a 5% level (4.75% versus 2.79%). The insignificance of the other accounting variables may be caused by the shrinking sample.

**Table II**  
**Description of the samples**

The table shows the median accounting ratios for the initial Thomson One Banker (TOB) sample and the matched pair sample of cross-border mergers and the corresponding domestic mergers in the announcement years. All variables are winsorized at the 1% level. The matched pairs sample is constructed by identifying a matching domestic merger for all cross-border mergers based on: similar target nation, two-digit SIC code, announcement is within one year of each other, and the domestic target is closest in size to the cross-border target. The initial dataset contains 2,956 domestic acquisitions and 929 cross-border acquisitions. The matched pairs sample contains 400 cross-border and domestic acquisitions after dropping observations without a matching pair. The dataset contains all mergers and acquisitions between January 1990 and December 2014 where both the acquirer and target are publicly listed, with available information in both Thomson One Banker and Datastream. I exclude from the sample: leveraged buyouts, spin-offs, recapitalizations, minority interest acquisitions and privatizations. Tests on significance are based on a nonparametric Kruskal-Wallis test. Tests of differences are based on a Wilcoxon-matched-pairs signed-rank test. The p-values in the table are in parentheses.

TOB+Datastream										
Acquiring company					Target company					
	N	Cross-border	N	Domestic	Difference (p-value)	N	Cross-border	N	Domestic	Difference (p-value)
Total assets (\$ Mil)	929	\$ 4,686.6	2950	\$ 1,784.4	(0.0001)	922	\$ 285.6	2945	\$ 224.7	(0.0029)
Tobin's Q	918	1.39	2909	1.16	(0.0001)	872	1.32	2725	1.15	(0.0001)
Sales to total assets	904	61.83	2890	58.60	(0.0692)	885	72.06	2865	71.46	(0.2167)
Return on assets	895	3.37	2736	1.15	(0.0001)	886	1.34	2701	0.16	(0.0001)
Cash flow to sales	901	12.92	2887	11.26	(0.0002)	881	9.88	2840	6.62	(0.0001)
Investment to assets	129	32.81	658	22.74	(0.0001)	118	24.04	571	23.25	(0.5545)

Matched Pairs										
Acquiring company					Target company					
	N	Cross-border	N	Domestic	Difference (p-value)	N	Cross-border	N	Domestic	Difference (p-value)
Total assets (\$ Mil)	400	\$ 4,062.6	400	\$ 2,519.3	(0.0108)	398	\$ 199.5	400	\$ 250.2	(0.0101)
Tobin's Q	394	1.53	400	1.42	(0.6416)	360	1.45	379	1.75	(0.0144)
Sales to total assets	380	59.39	396	60.25	(0.5360)	372	63.60	389	59.98	(0.5169)
Return on assets	384	2.79	390	4.75	(0.0022)	377	0.3	381	2.15	(0.0750)
Cash flow to sales	378	14.20	114	13.69	(0.8393)	371	9.36	106	6.91	(0.2198)
Investment to assets	41	42.86	48	33.84	(0.6448)	34	30.80	34	31.49	(0.6588)

Difference acquirer-target (p-values)				
	TOB+Datastream		Matched Pairs	
	Cross-border (p-value)	Domestic (p-value)	Cross-border (p-value)	Domestic (p-value)
Total assets	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Tobin's Q	(0.3172)	(0.0179)	(0.6018)	(0.0097)
Sales to total assets	(0.0001)	(0.0001)	(0.1483)	(0.9859)
Return on assets	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Cash flow to sales	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Investment to assets	(0.0450)	(0.9196)	(0.6320)	(0.8803)

### **3.4 The quality of investor protection**

The goal of this study is to provide more insight in the decision-value of investor protection in cross-border mergers and acquisitions. In this study, I make use of four distinctive measures for investor protection; (1) Shareholder protection, (2) Accounting Standards, (3) Creditor protection, and (4) Corruption. The scoring is based on both country-and firm-specific properties. In this subsection, I describe how the quality of each measure is constructed.

#### **3.4.1 Shareholder Protection**

The “Antidirector Rights index” (ADRI) from La Porta et al. (1998) is constructed for 49 countries. Studies show that investor protection greatly depends on the origin of the country’s legislative structure. Countries with the strongest protection for investors are common-law countries, French-civil-law countries show the weakest results, and countries with a German-and Scandinavian-civil-law are in between the two. Later, Djankov et al. (DLS) 2008 updated and extended the work for 72 countries, named the anti-self-dealing index. It provides a measure of legal protection of minority shareholders against expropriation by insiders. More recently, professor Spamann (2010) of the Harvard Law School improved the ADRI by proper re-coding of the existing variable definitions. The ADRI consists out of six components:

##### *A. Proxy/Vote by Mail Allowed*

The first component of the ADRI determines whether a shareholder is obliged to give its choice of vote physically, or through an authorized representative, in a shareholders’ meeting or whether it is able to directly send its decision to the company e.g. by mail. There are some ambiguities involved with this kind of voting. It is possible that the domestic law allows for shareholders to vote by mail, but it can be unclear whether firms are obligated to count these votes. In practice this appears not to be that self-evident. Next, some countries require companies to support proxy votes with appropriate two-way forms assisting small or minority shareholders. When this is not supplied, voting by mail may become illusory as small shareholders can have difficulty with the drafting of a suitable voting document. A country will score only score a one when the law explicitly mandates, or has as default rule all above requirements; equals zero otherwise (Spamann, 2010).

##### *B. Shares not Blocked/Deposited Before Meeting*

In some instances, shareholders are not allowed to deposit their shares in the period around a shareholders’ meeting, implying trading is blocked on exchanges. There are ways to circumvent the blockage of trading, like over-the-counter (OTC) transactions or forward sales. But, these

practices are likely to create other practical and legal problems, and are therefore not considered. In the study of Djankov et al. (2008) the variable anti-blocking rules appears to be a key driver of the remaining predictive power of ADRI on stock market returns. The legal rules that conjoin with the deposit requirements may measure differences between the standard practice between various jurisdictions rather than differences in law. For instance, it appears that no common-law country is a “blocking market”. This is the result of stock markets being organized with registered shares, instead of bearer shares, or share warrants. In some countries, like Italy and Belgium, share-blockage has become optional making coding on solely mandatory anti-blockage rules difficult. Findings show that legislative rules may not be of primary importance for the practice of share-blocking. Therefore, this component will equal one if the law does not permit shareholders to deposit with the firm, or another company around the time of a general shareholders meeting; equals zero otherwise (Djankov et al., 2008).

#### *C. Cumulative Voting or Proportional Representation*

In the procedure of cumulative voting each shareholder holds one vote per share, per seat in the board which is being elected. Furthermore, the shareholder is entitled to cast all its votes towards one seat or candidate. The mechanism potentially gives more influence to minority shareholders as they jointly can focus on one desired outcome. In some countries, there is a minimum holding percentage of shares required to request for cumulative voting. The variable will score one if shareholders holding 10% or less of the share capital, can cast all their votes for one board member; equals zero otherwise.

#### *D. Oppressed Minorities Mechanism*

Managers or controlling shareholders may make fundamental decisions about the firm which are not beneficial for minority shareholders. Examples are mergers and acquisitions, disposal of assets, or alterations in the articles of incorporation. Minority shareholders are defined as shareholders holding 10% or less of the share capital. A country scores a one when minority shareholders have the ability to challenge a resolution of both shareholders and the board; scores a half if they have the ability to challenge one of the two; equals zero otherwise.

#### *E. Preemptive Rights to New Issues*

Preemptive rights are granted to ensure that shareholders having committed large amounts of capital do not run the risk of diminishing voting power. In a secondary offering a firm may issue a significant number of shares diluting the controlling power of existing shareholders. This variable scores a one when the law or listing rules explicitly grants shareholders the right to have the first opportunity to buy the newly issued shares; equals zero otherwise (Djankov et al., 2008).

#### *F. Percentage of Share Capital to Call an Extraordinary Shareholder Meeting*

In some countries shareholders are able to call for an extraordinary shareholder meeting when they own a minimum amount of share capital. The threshold differs significantly per country, and may even differ within a country dependent on the number of shareholders. The score for this component is the minimum percentage of share capital required by default rule in order for a single shareholder to call for an extraordinary shareholder meeting.

The index from LLSV only provides country-specific data about the shareholder protection. In an ideal situation, the grading of investor protection would be available on a firm-specific level. This gives a more accurate insight in the effect of transfer of investor protection. However, this is information which is not publicly available.

Table III presents the ADRI score for every country in the sample. La Porta et al. (1998) is the first to quantify shareholder protection by nationality. Djankov et al. (2008) did a revision of the initial index updating and correcting the scores.

#### **3.4.2 Accounting Standards**

I gather information from Worldscope to analyze firm-specific effects in cross-border mergers. The database collects information on the accounting standards of individual firms; categorized by local IAS, US GAAP or EU standards. Next, the accounting standards of the individual firms are combined with the LLSV index, where country's accounting score is also graded.

The LLSV index scales from a minimum of 24 to a maximum of 83, grading 41 countries in total. The scale ascends from poor to strong accounting standards, whereby Egypt has the poorest (accounting score of 24) and Sweden the strongest system (accounting score of 83). Firms in the sample using international accounting standards (like IFRS) are graded with a score of 83, similar as Sweden. Companies following US GAAP accounting standards are graded with a score of 71, similar as the United States. Finally, firms using local accounting standards are graded by the score of their nationality's accounting score. This results in an index of accounting standards being time-and firm-specific varying. The index of shareholder protection remains country-specific and static over time.

In example, when a company from the Sweden using IFRS as accounting method acquirers a firm from the US using US GAAP as accounting method, there is a positive transfer in accounting standards by 12 points (IFRS score 83 minus US GAAP score 71).

### 3.4.3 Creditor Protection

There are studies indicating that creditor protection in bankruptcy has significant effects on a corporate's investment decision. Acharya et al. (2011) studies the relation between creditor rights and corporate risk-taking. Theoretically, stronger creditor rights in default can result in inefficient liquidation, eliminating the option for the continuation of the company harming shareholder value. In some countries creditor rights entail the disposal of the executive board in the case of a default, imposing private costs on managers. Both shareholders and managers may lower the likelihood of financial distress by limiting cash flow risk. Consequently, strong creditor protection can result in destruction of value due to foregoing profitable investments. Additionally, while stronger creditor rights may positively affect creditors' propensity to lend, it also reduces companies' appetite for credit, resulting in lower levels of corporate debt funding. Bae and Goyal (2009) show that banks respond to the enforceability of contracts. Poor enforceability reduces the debt size, maturity of the loan, and increase the credit spread. Confirmatory to the literature, Acharya et al. (2011) find that stronger creditor rights increase the tendency of firms to engage in value-reducing diversifying acquisitions, acquiring assets with relatively high recovery values in default and low cash flow risk.

When reviewing the transfer of creditor protection in cross-border acquisitions, there are some caveats. For instance, when corporate assets after a merger remain under the jurisdiction of the nation where they are located, a transfer of creditor protection is not always possible. For fixed assets, the physical location is leading in determining which legislation is applicable. Correspondingly, if fixed assets are used as collateral in corporate debt, the law applicable to those assets remains in the country where the assets are located. In some countries, the court in the country of nationality of the acquirer has jurisdiction over the corporate assets situated in other countries<sup>3</sup>. In example, U.S. courts have jurisdiction over assets irrespective of whether the assets or creditors are located outside the U.S. It follows the *universality approach*, meaning that in the occurrence of a default the case should be considered as a single case, and thus creditors be treated similarly regardless of their location (Bris & Cabolis, 2008).

The creditor protection index is gathered from LLSV (1998) where 47 countries were rated. The scoring ranges from 0 to 4 where nations with poor credit protection have a score of 0 and countries with strong credit protection 4. Countries with the highest rating of creditor protection are, amongst others, United Kingdom, Singapore and Hong Kong. The poorest

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<sup>3</sup> In the United States, courts have jurisdiction over default cases where the creditors and/or assets are in the US. In such cases the nationality of the firm is of irrelevance (US Bankruptcy Code §304). As well, the US law is applicable when the creditors and/or assets are located in foreign countries. In example, when a firm from the US acquirers a company in Brazil, US courts have jurisdiction over the assets and newly formed entity in Brazil.

**Table III**  
**Country Score Antidirector Rights Index**

The table displays the Antidirector Rights Index (ADRI) scores per country. The Original scores are from La Porta et al. (LLSV) (1998), and the revised scores from Djankov et al. (DLLS) (2008). The scale ranges from 1 to 5 where a high score indicates good investor protection and a low score poor investor protection. LLSV (1998) were the first to construct the index for 49 countries based on: (i) Proxy/Vote by Mail Allowed, (ii) Shares not Deposited Before Meeting, (iii) Proportional Representation, (iv) Oppressed Minorities Mechanism, (v) Preemptive Rights to New Issues, and (vi) Percentage of Share Capital to Call an Extraordinary Shareholder Meeting. DLLS (2008) updated and extended the work for 72 countries. The initial dataset contains all mergers and acquisitions between January 1990 and December 2014 where both the acquirer and target are publicly listed, with available information in both Thomson One Banker and Datastream. I exclude from the sample: leveraged buyouts, spin-offs, recapitalizations, minority interest acquisitions and privatizations. The matched pairs sample is constructed by identifying a matching domestic merger for all cross-border mergers based on: similar target nation, two-digit SIC code, announcement is within one year of each other, and the domestic target is closest in size to the cross-border target. The initial dataset contains 929 and the matched pairs sample 400 cross-border acquisitions. The table shows the nationalities of the target companies. For both samples, I computed the weighted average (WA) Antidirector Rights score for the original and revised indices.

Country	Original	Revised	Initial (N=929)	Matched (N=400)	Country	Original	Revised	Initial (N=929)	Matched (N=400)
Brazil	3	5	18	2	Norway	4	3.5	9	2
Ghana		5	2		Peru	3	3.5	9	2
Hong Kong	5	5	11	2	Sweden	3	3.5	13	4
India	5	5	24	16	Belgium	0	3	6	
IrelandRep	4	5	3	1	Bulgaria		3	1	
Malaysia	4	5	13	2	Colombia	3	3	3	1
Romania		5	1		Egypt	2	3	7	1
Singapore	4	5	24	7	Mexico	1	3	8	
South Africa	5	5	15	2	Slovenia		3	1	
Spain	4	5	8	2	Switzerland	2	3	13	1
United Kingdom	5	5	70	30	Taiwan	3	3	7	5
					Tunisia		3		
Iceland		4.5			Turkey	2	3	13	1
Japan	4	4.5	9	8	Uganda		3		
South Korea	2	4.5	16	8	Ukraine		3		
Australia	4	4	95	65	United States	5	3	163	141
Canada	5	4	65	31					
Chile	5	4	11		Austria	2	2.5	7	
Czech Rep.		4	8	1	Croatia		2.5		
Denmark	2	4	3		Netherlands	2	2.5	23	1
Indonesia	2	4	16	3	Portugal	3	2.5	3	
Israel	3	4	5		Argentina	4	2	8	1
Jamaica		4			Bolivia		2		
Kazakhstan		4			Ecuador	2	2		
Latvia		4			El Salvador		2		
Lithuania		4	2		Greece	2	2	6	
New Zealand	4	4	11		Hungary		2	1	
Nigeria	3	4	2		Italy	1	2	5	2
Pakistan	5	4	3		Kenya	3	2	1	
Philippines	3	4	5	3	Luxembourg		2	5	
Russian Fed		4	4	3	Morocco		2	3	
Sri Lanka	3	4	3		Panama		2		
Thailand	2	4	11	3	Poland		2	11	2
Zimbabwe	3	4							
					China		1	9	2
Finland	3	3.5	11		Jordan	1	1	3	
France	3	3.5	36	12	Uruguay	2	1		
Germany	1	3.5	68	33	Venezuela	1	1	1	
WA Initial	3.50	3.71							
WA Matched	4.05	3.70							



legislation for the protection of creditors are in the countries France, Mexico, Peru and the Philippines; all scoring a zero.

#### **3.4.4 Corruption**

The standard measure of corruption in the academic literature is defined by the Political Risk Services in the International Country Risk Guide (ICRG). They assess the corruption within the political system. For several reasons corruption can be a threat for foreign investments; (1) it distorts the economic and financial environment; (2) reduces the efficiency of government and business by enabling persons to occupy positions through sponsorship rather than competence; (3) creates instability into the political process. The corruption index is time-varying starting in 1996 until 2015, ranging from 0 to 1. Countries with the strongest control of corruption typically originate from the Northern Europe, and worst from Central and East Africa.

Two companies in a cross-border merger can get affected by the political system and corruption in both directions. In example, an acquirer from a country with a high control of corruption acquires a company from a country with a low control of corruption. The acquirer deals with the level of corruption in the target nation. Conversely, the target firm is subject to the political system of the acquiring firm. The acquisition can have a positive effect on the target firm, but the target firm may also damage the newly formed entity.

Table IV provides an overview of the summary statistics of all four variables of investor protection, for both the TOB+Datastream and matched pairs sample. The table shows that following the matching procedure, the mean and median do not change significantly for all variables.

### **3.5 Investor Sentiment**

In this study, I try to find whether the relation between investor protection and the merger premium in cross-border acquisition is influenced by investor sentiment. In periods of high sentiment, companies may under-or overvalue a positive transfer of investor protection. Conversely, in periods of low sentiment managers may additionally value a positive increase in corporate governance and investor protection. Especially in periods of low investor sentiment, managers emphasize on operational efficiency.

The Investor Sentiment theory is based on the believe that noise traders cause for mispricing in financial markets. A period of overpricing is defined as a period of high investor sentiment, and underpricing as a period of low investor sentiment. Classical finance theory argues that the demand of noise traders is offset by arbitrageurs, therefore having no impact on security prices. However, according to Baker and Wurgler (2006) mispricing is the result of an uninformed demand shock in combination with a constraint in arbitrage. They find that investor sentiment

**Table IV**  
**Investor protection summary statistics**

This table presents the descriptive summary of the four metrics of investor protection being: (1) shareholder protection, (2) accounting standards, (3) creditor protection and (4) control of corruption. I only include cross-border observations and show the statistics for both target and acquiring firms. The TOB+Datastream sample is constructed by merging all public M&A observations with stock price data from Datastream. Following, I try to match every cross-border merger with a domestic merger based on: (i) date of merger, (ii) target country, (iii) target industry and (iv) total assets of target firm. Following the matching process the total number of observation decreases from 929 to 400 observations.

	TOB+Datastream sample					Matched pairs sample				
	Mean	Median	Min	Max	Std. dev	Mean	Median	Min	Max	Std. dev
<i>Panel A: Target firms</i>										
Shareholder protection	3.70	3.50	1.00	5.00	0.90	3.69	3.50	1.00	5.00	0.77
Accounting standards	72.33	71.00	24.00	83.00	10.52	72.65	71.00	24.00	83.00	8.30
Creditor protection	1.97	1.00	0.00	4.00	1.31	1.72	1.00	0.00	4.00	1.21
Control of corruption	0.67	0.67	0.17	1.00	0.18	0.69	0.67	0.25	1.00	0.14
<i>Panel B: Acquiring firms</i>										
Shareholder protection	3.73	3.50	1.00	5.00	0.99	3.76	4.00	1.00	5.00	0.97
Accounting standards	73.81	71.00	24.00	83.00	8.30	74.02	74.00	50.00	83.00	7.74
Creditor protection	1.99	2.00	0.00	4.00	1.29	1.98	2.00	0.00	4.00	1.30
Control of corruption	0.69	0.67	0.17	1.00	0.17	0.69	0.67	0.25	1.00	0.17

has significant impact on the cross-section of share prices. Further, the effect of investor sentiment, or mispricing, is strongest in firms which are harder to value, and more difficult to arbitrage. If companies originating from countries with poor investor protection are harder to value, I expect that the effect of investor sentiment is stronger in countries with poor investor protection.

The most commonly used proxy for investor sentiment is constructed by Baker and Wurgler (2006). It is based on the common variation in six underlying proxies for sentiment: (1) the closed-end fund discount (CEFD); (2) NYSE share turnover; (3) IPO volume; (4) the average first-day IPO return; (5) the equity share in new issues; (6) the dividend premium. All index components are first rescaled and standardized so that the index has unit variance. Investor sentiment is a time-series conditioning variable running from 1958 to 2015. The scores ranges from a minimum of -2.33 in November 1976 to a maximum of 3.08 in February 2001.

#### IV. Methodology

First, I describe the acquisition likelihood model used to identify the drivers for cross-border mergers. In general, merger premiums are not publicly available for mergers and acquisitions. The use of abnormal returns at the announcement of a mergers is widely accepted as a proxy for the premium. Schwert (2000) finds that the announcement effect of a tender offer is predominantly a reflection of the premium paid by the acquirer. The abnormal returns are estimated with an event study following the methodology of Brown and Warner (1985). In this

section I describe the event study applied in this study, the assumptions and the summary statistics of the event study.

#### 4.1 Acquisition likelihood model

The use of discrete choice models is increasingly used in applied econometrics. The multinomial logit model of McFadden (1973) is used to model the underlying choice of probabilities of a specific dependent variable, which cannot be ordered in a meaningful way. For instance, whether a company decides to participate in a domestic or cross-border acquisition in relation to independent explanatory variables. In this study, I try to examine whether the transfer of investor protection influences the propensity to acquire cross-border targets.

There are several empirical studies attempting to predict acquisition targets. Palepu (1985) is the first to combine the logit model in combination with takeover predictions. The model is commonly used for dichotomous state problems. Here, the dependent variable  $Y$  is whether the acquirer engages in a cross-border acquisition; taking the value 1 in the case of a cross-border acquisition and 0 for domestic acquisitions:

$$Y = \begin{cases} 1 & \text{with probability: } p \\ 0 & \text{with probability: } (1-p) \end{cases} \quad [8]$$

Following to the multinomial logistic model,  $P_{i,t}$  is the probability that the firm  $i$  will engage in a cross-border acquisition in period  $t$ . Let  $Z$  be the vector of firm and country characteristics and  $\beta$  the parameter to be estimated. This gives:

$$P_i = E(Y = 1|X_i) = \frac{1}{1+e^{-Z_i}} \quad [9]$$

where;

$$Z_i = \beta_0 + \beta_1 X_{1i} + \dots + \beta_k X_{ki} \quad [10]$$

The intuition behind the logit model rests on the assumption that the propensity of a firm to engage in a cross-border acquisition depends on the firm's characteristics. Similar for target companies, the likelihood that a firm is a target for cross-border acquirers depends on the firm's characteristics. The relationship between the binary dependent variable and explanatory variables are described in formula [9] and [10].

$$L_i = \ln\left(\frac{P_i}{1-P_i}\right) = Z_i = \beta_0 + \beta_1 X_{1i} + \dots + \beta_k X_{ki} \quad [11]$$

$$\frac{\partial P_i}{\partial X_i} = \beta_i P_i (1 - P_i) \quad [12]$$

As can be seen from equation [10] and [11], there is a linear relation between  $L_i$  (the log-odds ratio or logit  $L_i$ ) and explanatory variables  $X_i$ . The relationship between the likelihood of a cross-border acquisition and the explanatory variables is non-linear. As an effect, the parameters  $\beta_i$  cannot be interpreted as real probabilistic changes in  $P_i$ . Equation [12] shows that when the probability of the cross-border acquisition is either high or low, the incremental change in the explanatory variable must be significantly high to influence the classification of the observation.

With the acquisition likelihood model, I test whether a variable is of influence in the target selection process for managers. I expect that strong investor protection in the bidder country increases its propensity to participate in cross-border acquisitions. Contrary, it is expected that firms with poor investor protection are more likely to be targets in cross-border acquisitions. In the likelihood regression, I only include independent variables which possibly could affect the likelihood of a cross-border acquisition. In essence, this is public data at the disposal of the manager prior to the merger. Following the multinomial logit model:

$$\begin{aligned} CRSSBRDR = & \alpha_i + \beta_1 (\Delta \text{ Shareholder Protection}) + \beta_2 (\Delta \text{ Accounting Score}) \quad [13] \\ & + \beta_3 (\Delta \text{ Creditor Rights}) + \beta_4 (\Delta \text{ Control of Corruption}) \\ & + \beta_5 (\text{Country specific controls}) + \beta_6 (\text{Deal specific controls}) + \varepsilon \end{aligned}$$

In the model, I correct for both country- and firm specific variables. As country-specific control variables, I incorporate (1) the difference in valuation of the domestic currency, (2) height of GDP per capita being a measure of economic development and (3) M&A-activity in both the target and acquiring nation. The firm-specific variables are: (a) firm industry, (b) size indicated by Total Assets, acquiring companies' (c) Tobin's Q, (d) Cash Flow to Sales and (e) Funds from Operations. In section 4.3.1 the control variables used in the regressions are specified more extensively.

## 4.2 Event study

Abnormal returns, as a proxy for the merger premium, is calculated with use of an event study. Fama, French, Jensen and Roll (FFJR) introduced the event study methodology in the late 1960s. It is used to analyze the behavior of security prices in events such as earnings

announcements, mergers and acquisitions or changes in accounting rules. Nowadays, the event study is the standard method of measuring security price reactions as a result from various announcements (Binder, 1998).

The purpose of an event study is to determine whether the event or announcement caused a price movement significantly different from a ‘normal’ trading day. I categorize a ‘normal’ trading day as a day without an event announcement. To do this, I estimate the ‘normal’ returns in the event window with use of an estimation period, giving the returns without the announcement effect. In this study, I apply a three-day event window,  $t = -1$  to day  $t = +1$ . It is customary to take an event window larger than the event day to incorporate information leakages and pricing delays. The ‘normal’ returns in the event window are modeled with data from the estimation window,  $t = -100$  to day  $t = -260$ . There are two methods of modeling the estimated returns, the *constant mean return model* and the *market model*. The first model assumes that the mean return of a stock is constant over time, whereas the last model implies a stable linear relation between the market return and stock return (MacKinlay, 1997). Although the first model is more simplistic, studies find that the it regularly yields to the same outcome as the market model (Brown & Warner, 1980; 1985). On the other hand, the market model is potentially more accurate as it removes the related variation to the market’s returns. In this study the market model regression is used as a two-factor model, both in dollar-denominated daily returns. From this follows the market model regression:

$$R_{i,j,t} = \alpha_i + \beta_i^m R_{m_j,t} + \beta_i^W R_{w,t} + \varepsilon_{i,t} \quad t = -260, \dots, -100 \quad [14]$$

$$E(\varepsilon_{i,t} = 0) \quad Var(\varepsilon_{i,t}) = \sigma_{\varepsilon_i}^2 \quad [15], [16]$$

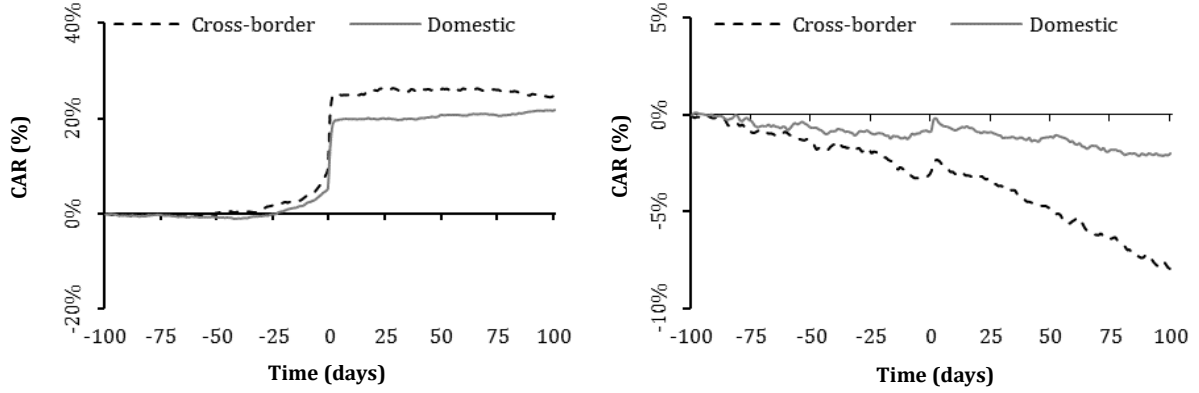
Here  $R_{i,j,t}$  refers to the daily share return for either target or acquiring firm  $i$ , in country  $j$ . The two factors in this models correspond to the market return of the country of nationality and world index MSCI. Whereas  $R_{m_j,t}$  is the market return in country  $j$  and  $R_{w,t}$  the return of the world index. The data on the index returns are both gathered from Datastream. Remaining, the residual  $\varepsilon_{i,t}$  reflects the excess return for every company and trading day. From this follows the abnormal returns:

$$AR_{i,t} = R_{i,j,t} - \left( \alpha_i + \beta_i^m R_{m_j,t} + \beta_i^W R_{w,t} \right) \quad [17]$$

Figure I

**Panel A and Panel B: Announcement BHCAR for target and acquiring companies**

Figure 1 illustrates the cumulative abnormal returns (BHCARs) for target (left graph) and acquiring (right graph) companies, separated for cross-border and domestic acquisitions. The abnormal returns are calculated from a of a market model estimated using daily company stock and MSCI returns over the period  $t = -260$  to  $t = -100$  trading days compared to the day of the merger announcement. Daily stock returns are gathered from Datastream. Returns are computed in dollars and the BHCARs are separated by cross-border and domestic acquisitions.



Next, I determine the effects of each merger or acquisition by computing the buy-and-hold cumulative abnormal returns (BHCAR). I calculate the cumulative abnormal returns over four different periods ( $T_1$   $T_2$ ). First the price run-up,  $(-100, -3)$ , second the acquisition announcement returns  $(-1, +1)$ , and lastly the post-announcement returns for  $(0, +10)$  and  $(0, +100)$ . The BHCAR is calculated as follows for firm  $i$ :

$$BHCAR_i^{(T_1 T_2)} = \prod_{t=T_1}^{t=T_2} (1 + \widehat{\varepsilon}_{i,t}) - 1 \quad [18]$$

During the three-day merger announcement window, target firms experience a 14.49% positive abnormal returns (significant at the 1% level), whereas acquirers experience a 0.59% positive returns (significant at the 5% level). When examining the period of 100 days following the merger announcement target companies experience an 16.20% abnormal returns and acquirers  $-2.00\%$  abnormal returns (both significant at a 1% level). The price run-up in days  $(-100, -3)$  for targets shows similar results. Positive abnormal returns of 5.13% (significant at a 1% level) for targets and negative abnormal returns  $(-1.39\%)$  for acquirers (significant at a 5% level). This is in line with previous studies, showing that mergers generally are value-destroying. A potential cause is the overvaluation of synergies in periods of high sentiment (Moeller & Schlingemann, 2005).

#### 4.2.1 Assumptions

To correctly interpret the result from the event study I need to make assumptions about the financial market and distribution of the sample. As this study observes announcement returns I

assume that the effects of the merger announcement are incorporated in the stock price within the event window. The market efficiency hypothesis of Fama (1970) describes the degree and pace of information that gets absorbed in stock prices. Following, there are three forms of market efficiency; being a weak, semi-strong and strong efficient market. The first, a weak form, considers a security price to capture all historical information such that past information has no effect on current market prices, future prices show a random walk. In a strong efficient market, all information available, either public or private, is incorporated in an asset's price. It implies that there is no existence of information asymmetry between managers and shareholders. A semi-strong efficient market assumes that only publicly available information is captured in the stock price. In this study, I consider this as a realistic simplification of the financial markets nowadays. Thereupon, the effect of a merger is observable at the announcement date and an event study is applied.

To interpret the results of the event study correctly, I need to make assumptions about distributional properties of the sample and abnormal returns. Under the expectation that the merger announcement have no impact on the distributional properties of (2) and (3), I can draw conclusions on the whole event window. The distribution of the sample abnormal return of a given acquisition of firm  $i$  at time  $t$  is:

$$AR_{i,t} \sim N[0, \sigma^2(AR_{i,t})] \quad [19]$$

Next, for the aggregation of the cumulative abnormal returns of the event window, over all observations, this study assumes there is no overlap in event windows. The absence of overlapping event windows implies that the distribution of the abnormal returns is independent across the stocks. The assumptions simplify the aggregation over the sample as it leaves the covariance across stocks out of the consideration (MacKinlay, 1997).

Potential further improvements over the market model are multi-factor models. Brown and Weinstein (1985) examine the utility of multi-factor models, such as the Asset Pricing Theory, in the event study application. Such models are more powerful when the multi-factor model is specified correctly. However, evidence suggests that in practice there is limited value added relative to the use of a simple market model. They assign this finding to the misspecification of the statistical analysis model. If factors, apart from the market return, have little or no explanatory power and/or their betas are imprecisely estimated, the market model performs better in practice. Therefore, the extra practical and statistical complexity involving a multi-factor model is redundant in this study.

### 4.2.2 Matching pairs

The abnormal returns of mergers and acquisitions are correlated with country specific characteristics. Kaplan and Holmstrom (2001) find evidence for corporate governance mechanisms being a crucial factor for the focus of acquisitions. The shift from leveraged hostile takeovers and buyouts in the 1980s towards activists' board of directors and shareholders in the 1990s can be traced back to the rise of incentive-based compensation. Change in corporate governance mechanisms, like deregulation or equity-based compensation, may result in comparative advantages between markets. Moreover, the market timing theory states that periods of overvaluation drive stock-financed acquisitions. For a company, it has become a relatively cheap way to finance its investment. Rhodes-Kropf and Viswanathan (2004) find that is an incomplete story, showing there is a valuation effect irrespective of whether there is a regulatory or innovative market shock.

To analyze whether investor protection is a true driver for corporate acquisitions it is important to isolate for these distortive effects. For each cross-border acquisition I match a domestic acquisition based on (1) industry (2-digit SIC code); (2) target nation; (3) acquisition announcement within the same year; and (4) the matching domestic acquisition is the closest in total assets. I compute the matching-acquisition adjusted BHCARs (MABHCARs) as follows:

$$MABHCAR_i = BHCAR_i^{CB} - BHCAR_i^{DOM} \quad [20]$$

Where  $BHCAR_i^{CB}$  is the cumulative buy-and-hold abnormal return for the cross-border acquisition for  $i$  is day  $t = -1$  till day  $t = 1$ , and  $BHCAR_i^{DOM}$  the matching domestic acquisition for the same event window. Due to the matching process the sample of cross-border observations drops from to 227 acquisitions from which I have all investor protection information.

When I group the matched pairs sample by positive and negative transfer in investor protection, and by various time periods, the final subsamples will be too small to produce statistically powerful and significant results. Consequently, I am dictated to adopt the original TOB+Datastream sample. To isolate the corporate governance effect as well, I correct for fixed year effects and fixed target industry effects in the empirical models.

### 4.2.3 Summary statistics

In this section, I summarize the results of the event study computed for the TOB+Datastream and matched pairs sample. As stated before, various studies find that buy-and-hold abnormal returns is a good proxy for the merger premium. Table V summarizes the BHCARs for various



event windows subdivided in two time periods, before and after December 2004. In this way both the TOB+Datastream and matched pairs sample is roughly split in half. As well, the Sarbanes-Oxley Act of 2002 emphasizes a worldwide quality improvement of accounting standards and investor protection. The European Parliament enacted a law requiring all publicly traded companies to report their financial results in accordance with the IFRS starting from January 2005 onwards.

When considering the target companies in the TOB+Datastream sample, cross-border targets show significantly higher abnormal returns before December 2004 compared to targets in the windows (-100,3), (-1,1) and (0,10). Noticeable, after December 2004 the relatively higher returns for cross-border targets tend to disappear. In example, the event window around the merger announcement in the early period shows 1.75% additional abnormal returns for cross-border compared to domestic targets. In the late period, the supplementary abnormal returns for cross-border targets diminishes to 0.04%. Both the cross-border and domestic abnormal returns significantly increase over time but the difference between the two disappears. Furthermore, the post-announcement returns in the early period for domestic targets are relatively better than for cross-border targets (12.41% cross-border versus 13.31% domestic). The difference between the two increases in the late period from 0.90% to 2.71%. The pre-announcement period shows leakage of information. Both cross-border and domestic targets have significant positive abnormal returns before the announcement date. The effect is stronger for cross-border targets than for domestic targets.

Contradictory to target firms, acquirers have negative abnormal returns prior to the announcement, also indicating leakage of information. There is no serious difference between the period before and after December 2004. Both cross-border and domestic acquirers show small positive significant abnormal returns in the late period (0.61% versus 0.43%) while in the early period both BHCARs were insignificant. It appears that the positive abnormal returns are short-term as the post-announcement abnormal returns become negative in the early period. The negative effect for cross-border acquirers is stronger than for domestic acquirers (-7.42% versus -2.43%). In the late period, cross-border acquirers are better in selecting and negotiating on targets.

Considering the matched pairs sample, the pre-announcement window shows interesting BHCARs. The abnormal returns of cross-border targets significantly decrease over time, from 12.27% to 5.71%. Conversely, the abnormal returns of domestic targets are increasing over time, from -6.31% to 4.67%. It must be noted though that the Kruskal-Wallis test has an insignificant outcome. Meaning, the hypothesis that both samples come from the same distribution cannot be rejected. There is insufficient evidence to state that the sign turns around from negative to

**Table V**  
**Announcement BHCARs for target and acquiring firms**

The initial sample consists of all domestic and cross-border announcements recorded by Thomson One Banker between January 1990 and December 2014. Only completed deals are incorporated in the dataset, where both target and acquirer are publicly listed companies. Furthermore, I exclude from the sample: leveraged buyouts, spin-offs, recapitalizations, minority interest acquisitions and privatizations. The table shows the (BHCARs) for target and acquiring companies, separated for cross-border and domestic acquisitions. The abnormal returns are calculated from a of a market model estimated using daily company stock and MSCI returns over the period  $t = -260$  to  $t = -100$  trading days compared to the day of the merger announcement. Daily stock returns is gathered from Datastream. Returns are computed in dollars and the BHCARs are separated by cross-border and domestic acquisitions.

	TOB+Datastream						Matched Pairs					
	Cross-border	Target		Cross-border	Acquirer		Cross-border	Target		Cross-border	Acquirer	
		Domestic	Diff.		Domestic	Diff.		Domestic	Diff.		Domestic	Diff.
Event window [-100;-3]												
Before December 2004	9.05% ***	7.42% ***	1.63%	-4.58% ***	-0.45%	-4.13%	12.27% ***	-6.31%	18.58%	-8.57% ***	-4.41% *	-4.16%
After December 2004	2.77%	3.68% ***	-0.91%	-1.46%	-1.45% *	-0.01%	5.71% *	4.67% *	1.11%	-3.15% *	1.01%	-4.16%
Kruskall-Wallis Test (p-value)	(0.1115)	(0.0721)		(0.2656)	(0.6255)		(0.0874)	(0.2666)		(0.2296)	(0.0497)	
Event window [-1;1]												
Before December 2004	12.94% ***	11.19% ****	1.75%	0.24%	-0.24%	0.48%	15.78% ***	12.76% ***	3.02%	-0.69%	-1.45% ***	0.76%
After December 2004	14.95% ***	14.91% ****	0.04%	0.61% *	0.43% **	0.18%	15.80% ***	15.73% ***	0.07%	1.01% **	0.78%	0.23%
Kruskall-Wallis Test (p-value)	(0.0338)	(0.0006)		(0.0569)	(0.0023)		(0.9570)	(0.4778)		(0.0356)	(0.0050)	
Event window [0;10]												
Before December 2004	12.56% ***	10.58% ***	1.98%	-0.80%	-1.02% ***	0.22%	13.72% ***	11.91% ***	1.81%	-2.03% **	-2.71% ***	0.67%
After December 2004	15.31% ***	15.60% ***	-0.29%	0.63%	-0.29%	0.92%	16.88% ***	16.95% ***	-0.07%	0.59%	0.22%	0.37%
Kruskall-Wallis Test (p-value)	(0.0773)	(0.0001)		(0.0769)	(0.0349)		(0.4661)	(0.0649)		(0.0656)	(0.0073)	
Event window [0;100]												
Before December 2004	12.41% ***	13.31% ***	-0.90%	-7.42% ***	-2.43% **	-4.99%	15.50% ***	14.39% ***	1.11%	-12.08% ***	-9.40% ***	-2.68%
After December 2004	14.26% ***	16.97% ***	-2.71%	0.26%	-0.97%	1.23%	16.59% ***	14.65% ***	1.94%	0.16%	3.88%	-3.72%
Kruskall-Wallis Test (p-value)	(0.5456)	(0.0504)		(0.0578)	(0.7021)		(0.8903)	(0.7360)		(0.0590)	(0.0019)	

\*\*\*, \*\*, \* indicate significance at 1% percent, 5%, and 10% levels, respectively

positive. In the event window, all target BHCARs show significant results. Before December 2004 cross-border targets have 3.02% higher abnormal returns compared to domestic targets. Similarly, as I saw in the TOB+Datastream sample, the difference diminishes in the late period to 0.07%. Post-announcement returns are all significant at a 1% level where cross-border targets have slightly higher abnormal returns in the early and late period. Respectively 1.11% and 1.94% higher for cross-border targets.

Similar as before the matching process, the abnormal returns of acquiring companies indicating information leakage due to negative BHCARs. Both acquiring and domestic companies have significant negative post-announcement abnormal returns at a 1% level in the early period (-12.08% versus -9.40%). In the late period the significance totally disappears. However, it must be said that the Kruskal-Wallis test indicates that the distribution of the early and late sample statistically differs.

### 4.3 Empirical model

To determine the effect of investor protection and investor sentiment on the merger premium I need to correct for all deal-, firm-and country characteristics. The general OLS regressions with *BHCAR* as dependent variable is specified in the following way:

$$\begin{aligned}
 BHCAR = & \alpha_i + \beta_1 (\Delta \text{Shareholder Protection}) + \beta_2 (\Delta \text{Accounting Score}) & [21] \\
 & + \beta_3 (\Delta \text{Creditor Rights}) + \beta_4 (\Delta \text{Control of Corruption}) \\
 & + \beta_5 (\text{Country specific controls}) + \beta_6 (\text{Deal specific controls}) \\
 & + \beta_7 (\text{Deal specific controls}) + \varepsilon
 \end{aligned}$$

There are multiple control variables used to correct for the main deal-and country characteristics. In the next section the control variables used in the regressions are specified more extensive.

#### 4.3.1 Control variables

All control variables expect to have an impact on the premium paid in a merger, and can be separated by general firm-and deal characteristics and country characteristics.

*General deal-and firm characteristics*

(a) *Acquirer market value*: defined as the market value in millions USD of the bidder 30 days prior to the announcement of the merger. The data is gathered from Datastream.

(b) *Industry diversification*: determined by the two-digit SIC codes of each company. When the two-digit SIC codes of the acquirer and target are different, the merger is classified as a diversifying merger; equals zero otherwise.

(c) *Deal size*: the deal size is the total amount of capital paid by the acquirer for the target in USD as defined in ThomsonOne.

(d) *Relative deal size*: this a self-constructed variable by dividing the deal size through the acquirer market value, data gathered from ThomsonOne and Datastream.

(e) *Deal attitude*: this variable takes the deal attitude into consideration. Schwert (2000) provides evidence relating the attitude of the bidder to the share price run-up prior to the announcement and merger premium. When bidders have a hostile attitude towards the target the variable is one; equals zero otherwise.

(f) *Method of payment*: earlier studies show there is a relation between the method of payment and abnormal returns in cross-border acquisitions. Starks and Wei (2004) argue that target shareholders are not experiencing different levels of investor protection in cash-only offers. The target shareholders cash out of the merger. I constructed a dummy variable where a cash-only merger equals one, and zero otherwise.

#### *Country characteristics*

(g) *GDP per capita*: data on the GDP per capita is retrieved from the Worldbank. It is a time-varying variable given in USD. The GDP per capita serves as a measure of economic development.

(h) *Market liquidity*: the variable on market liquidity is constructed on two different manners. Firstly, I computed a ratio of total number of public acquisitions divided by the total number of public companies in a target country. Secondly, the total deal value of all mergers in a specific country as a measure of GDP per country.

(i) *Currency-Effect*: there are multiple studies indicating that the exchange rate between countries is a main driver for cross-border acquisitions (Rossi & Volpin, 2004; Bris & Cabolis, 2008). I construct a time-varying variable to correct for the currency effect. I denote all domestic currency in terms of USD and compute a ratio whether the currency at a given time is appreciated or depreciated relative to its average exchange rate. In this way, all ratios between acquirer and target can be compared.

## V. Empirical Results

This section discusses the outcome of the acquisition likelihood model and multivariate analysis. Accordingly, I reflect the results to the research questions.

### 5.1 Does investor protection drive cross-border acquisitions?

Investor protection significantly influences the ability of stakeholders being able to retrieve returns from its investment. For instance, various studies show that better investor protection and corporate governance result in higher dividend payouts (La Porta et al., 2000; La Porta et al., 2002). Therefore, it is possible that companies are eager to acquire companies from countries with poor investor protection. In the case of a 100% acquisition, the nationality of the target company changes and a transfer of investor protection takes place, potentially increasing the company's profitability. Conversely, poor investor protection may also daunt possible acquirers. Investor protection is closely related to the corporate governance mechanisms present in a company. A relatively low quality of corporate governance is risky for outside investors. For example, the incentives of managers and shareholders may not be perfectly aligned, or lacking quality of financial disclosure. To my knowledge, this is the first study focusing on investor protection as a driver for cross-border acquisitions using the revised index.

To determine which factors influence the propensity to engage in cross-border acquisitions I use the acquisition likelihood model, also known as the multinomial logit model. Here the dependent variable is the observation whether the merger is cross-border, 0 for domestic and 1 for cross-border. Next, I try to incorporate all factors potentially influencing managers in the selection process for identifying targets. Intrinsically this means that only country-and firm specific data can be of effect, there is no deal-specific information yet.

Hypothesis 1 predicts that the transfer in investor protection is a driver for cross-border acquisitions. Insinuating that the potential benefit of a transfer of legal rules is dominant over the fact that poor investor protection can be discouraging. Table VI displays the outcome of the regression analysis of the multinomial logit model, separated by period and size. The period is split up in two halves being the years before and after 1 January 2005. The median total assets of the target companies in the TOB+Datastream sample is \$2.231 billion.

Considering the early period, it can be concluded that a positive difference in shareholder protection increases the propensity of a company to engage in a cross-border

**Table VI**  
**Cross-border Acquisition Likelihood Model Separated by Period and Size – Multinomial Logit Analysis**

Table VI shows the multinomial logit model of the probability that companies engage in cross-border mergers and acquisitions, where the coefficients in the table are odds-ratios. For the logit regression, I used the TOB+Datastream sample subdivided by period and size. The early period sample consists of all observations before 1 January 2005 and the late period sample of all observations after 1 January 2005. Next, all observations are split by size. More specifically, below and above median acquiring company total assets. The median total assets of the sample are \$2.231 billion. In this study I use four measures of investor protection being (1) Shareholder Protection, (2) Accounting Standards, (3) Corruption Control and (4) Creditor Rights. For variables (1) and (2), I use the computed difference between the acquiring and target company. Furthermore, in the regression I correct for both country-and firm characteristics.

	Before January 2005								After January 2005							
	Below Median Assets				Above Median Assets				Below Median Assets				Above Median Assets			
<i>Panel A: Investor protection</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Revised ADRI Difference	1.186 (0.82)	1.106 (0.44)	1.124 (0.50)	1.220 (0.86)	1.503*** (3.19)	1.421** (2.32)	1.343* (1.86)	1.459** (2.44)	1.232 (1.28)	1.395* (1.65)	1.201 (0.90)	1.266 (1.16)	0.953 (-0.45)	1.041 (0.34)	0.908 (-0.74)	0.948 (-0.41)
Accounting Difference		0.987 (-0.49)	0.994 (-0.23)	0.987 (-0.48)		1.026 (1.33)	1.018 (0.88)	1.025 (1.27)		1.016 (0.81)	1.014 (0.74)	1.020 (1.03)		1.028** (2.55)	1.017 (1.64)	1.036*** (3.14)
Target Corruption Control		22.011*** (4.29)		20.889*** (4.23)		62.022*** (5.84)		57.366*** (5.72)		14.907*** (3.69)		19.342*** (3.73)		25.082*** (5.44)		29.915*** (5.25)
Target Creditor Rights			1.280** (2.56)	1.266** (2.45)			1.206** (1.97)	1.185* (1.76)			0.921 (-0.79)	1.051 (0.45)			1.005 (0.06)	1.085 (0.88)
<i>Panel B: Country specific</i>																
Target Currency	5.145 (0.51)	11.307 (0.75)	8.258 (0.66)	8.403 (0.68)	1.178 (0.17)	1.652 (0.56)	1.337 (0.30)	1.902 (0.69)	4.820 (0.49)	0.624 (-0.13)	0.006 (-1.26)	0.018 (-1.00)	0.002*** (-3.01)	0.001*** (-2.98)	0.003*** (-2.58)	0.003** (-2.51)
Acquirer Currency	0.606 (-0.16)	0.237 (-0.45)	0.216 (-0.49)	0.225 (-0.48)	13.680* (1.82)	25.449** (2.08)	16.306* (1.83)	22.057** (1.97)	0.195 (-0.50)	1.473 (0.10)	64.364 (1.06)	34.134 (0.90)	76.826* (1.95)	56.608* (1.70)	31.233 (1.44)	17.189 (1.17)
GDP Difference	0.973 (-1.51)	0.978 (-1.07)	0.974 (-1.32)	0.979 (-1.03)	1.100*** (6.38)	1.128*** (6.40)	1.115*** (5.56)	1.135*** (6.53)	0.988 (-1.23)	0.986 (-1.15)	0.979* (-1.78)	0.984 (-1.29)	1.013** (2.36)	1.020*** (2.76)	1.003 (0.42)	1.011 (1.47)
Target Market Liquidity Value	0.984*** (-3.45)	0.982*** (-3.46)	0.992 (-1.48)	0.989* (-1.90)	0.985*** (-3.19)	0.986*** (-2.85)	0.993 (-1.39)	0.990* (-1.76)	1.000 (-0.05)	0.996 (-0.49)	0.998 (-0.24)	0.998 (-0.22)	0.967*** (-5.36)	0.958*** (-6.30)	0.960*** (-5.10)	0.958*** (-5.26)
<i>Panel C: Firm specific</i>																
Horizontal	1.087 (0.43)	1.219 (0.98)	1.025 (0.12)	1.095 (0.44)	0.948 (-0.29)	0.966 (-0.18)	0.934 (-0.36)	0.926 (-0.40)	0.892 (-0.60)	0.891 (-0.58)	0.850 (-0.81)	0.870 (-0.68)	0.586*** (-3.38)	0.572*** (-3.35)	0.550*** (-3.56)	0.550*** (-3.48)
Acquirer Tobin's Q	0.987 (-0.78)	0.991 (-0.57)	0.990 (-0.63)	0.992 (-0.54)	1.033 (0.93)	1.016 (0.41)	1.027 (0.76)	1.012 (0.29)	0.998 (-0.16)	0.999 (-0.10)	0.998 (-0.14)	0.999 (-0.07)	1.523*** (4.33)	1.423*** (3.47)	1.512*** (4.11)	1.446*** (3.59)
Acquirer FFO	15.437** (2.38)	9.268* (1.82)	15.093** (2.29)	11.641** (1.98)	1.092*** (3.08)	1.106*** (3.29)	1.094*** (3.10)	1.103*** (3.20)	70.811*** (4.11)	84.022*** (4.05)	50.917*** (3.62)	77.183*** (3.92)	1.079*** (5.23)	1.082*** (5.10)	1.083*** (4.89)	1.078*** (4.63)
Acquirer CF to Sales	0.951 (-1.47)	0.961 (-1.27)	0.961 (-1.29)	0.963 (-1.22)	0.714 (-1.09)	0.593 (-1.44)	0.712 (-0.98)	0.621 (-1.33)	1.000 (-0.01)	0.985 (-0.70)	1.023 (0.62)	1.030 (0.80)	0.450 (-1.55)	0.577 (-1.06)	0.511 (-1.26)	0.634 (-0.85)
Target Total Assets	0.707 (-1.31)	0.712 (-1.23)	0.723 (-1.21)	0.717 (-1.18)	0.997 (-0.37)	0.996 (-0.49)	0.999 (-0.20)	0.996 (-0.49)	0.669 (-1.60)	0.711 (-1.27)	0.631 (-1.57)	0.670 (-1.41)	0.990 (-1.28)	0.990 (-1.31)	0.990 (-1.34)	0.989 (-1.36)
Number of observations	816	803	803	803	775	758	757	757	894	851	834	834	1001	951	913	913

\*\*\*, \*\*, \* indicate significance at 1% percent, 5%, and 10% levels, respectively

acquisitions. This solely counts for acquiring companies with above-median total assets. Meaning, large companies from countries with strong shareholder protection, more frequently, acquire firms from countries with poor investor protection than vice versa. Model (5) shows that the odds-ratio for large companies is 1.503 being significant at a 1% level. With a one-point difference in shareholder protection between the acquiring and target company, the probability of a cross-border acquisition is 50.3% higher relative to a domestic acquisition. The outcome contests the findings of Rossi and Volpin (2004) stating that accounting standards are more relevant for takeovers than shareholder protection.

The measure of shareholder protection remains robust when augmenting other measures of investor protection in model (6) till (8). I include the target company control of corruption and creditor rights in the model, instead of the difference between the acquiring and target company. The reason for this is to avoid multicollinearity in the models. Appendix 1 shows that the measure for shareholder protection, the revised ADRI-index, has a Pearson correlation coefficient of 0.593 with the computed difference between the acquiring and target company creditor rights index. The coefficient is significant at a 1% level. Additionally, the variable 'difference in control of corruption' has a relatively high correlation with the difference in GDP per capita between the acquiring and target company. This can easily be supported by economic theory, as economic developed countries are generally more capable of suppressing corruption compared to developing countries. The Pearson correlation coefficient between the two variables is 0.549 significant at a 1% level.

When examining other measures of investor protection, the target company control for corruption variable is significant at a 1% level in all logit models. From this I can conclude that managers are more likely to identify cross-border targets in countries with a high control for corruption. Protection of creditor rights is only significant in the period before 1 January 2005. A stronger creditor protection in the target company, increases the likelihood of a cross-border acquisition. An explanation for the positive correlation is that the deal size of cross-border acquisitions is larger than domestic acquisitions. Consequently, cross-border deals need more external financing. Debt providers are more inclined to invest in a project when their rights are better protected. Taking this in account, strong creditor rights stimulate larger, and therefore cross-border acquisitions. The disappearance of significance in the period after 2005 can be explained by the global financial crisis starting in 2007. In this period the available credit was scarce. As a result, acquisitions are financed to a lower extent with debt, creating a lower emphasis on the credit protection. However, it could also have been the case that due to the scarcity, the protection of creditor rights inflates in relevance. This is not what the data indicates.

The difference in accounting standards is not a significant driver for cross-border acquisitions in the early period. However, in the late period, accounting standards gains

significance in above median acquirers. Model (16) shows that a one-point positive difference between acquirer and target increases the propensity for a cross-border acquisition by 3.6%, significant at a 1% level. Thus, large companies are increasingly considering a positive transfer of accounting standards as a valuable opportunity.

In respect of the control variables, the exchange rate between two countries appears to be a driver for cross-border mergers with targets of an above median size. This is in line with previous studies of Rossi and Volpin (2004) and Bris and Cabolis (2008). In the early period, an appreciation in the acquirer currency relative to the US dollar increases the propensity to engage in a cross-border acquisition. Conversely, in the late period an appreciation in the domestic currency discourages managers in acquiring cross-border. This is remarkable as foreign direct investments are becoming relatively low-priced. A possible explanation for this is that managers have become more thoughtful in selecting target companies since the financial crisis. They rather pick targets based on fundamentals and synergies rather than the valuation of the exchange rate. Also, the uncertainty in the foreign currency can be seen as a liability where a stable exchange rate is preferred.

Furthermore, in both the early and late period, large companies rather acquire targets from lower economically developed countries than small companies. An increase in the difference between the acquiring and target nation results in a higher propensity to engage in a cross-border acquisition, significant at a 1% level. Size matters as large companies invest more heavily in emerging markets compared to smaller companies. This is in support of Chari, Ouimet and Tesar (2009) who find that multinational firms from developed countries, who acquire emerging-market companies, show positive returns.

In addition, the M&A activity in a nation significantly influences a managers' target selection process. High transaction volume, or merger waves, in the target country prevents managers from acquiring cross-border. Rhodes-Kropf and Viswanathan (2004) find that stock merger activity is correlated with high market valuations. Consequently, high market valuations of targets companies generate lower returns for acquirers. This in turn, results in managers postponing FDI or acquire domestically.

Lastly, it must be noted that the height of funds from operations (FFO) of an acquiring company increases the propensity to engage in cross-border acquisitions. As cross-border transactions are generally larger than domestic targets, firms with ample of capital are more inclined to invest abroad. Also, for large companies in the late period, managers who seek for a diversifying target rather acquire domestically. This is significant at a 1% level.



**Table VII**

**Explaining Merger Premiums with a Positive Transfer of Shareholder Protection – Multivariate Analysis**

The table shows the output of a multivariate regression of the TOB+Datastream sample. The dependent variable is the BHCAR of the event study with an event window of  $t = -1$  to  $t = 1$ . The abnormal returns are calculated from a of a market model estimated using daily company stock and MSCI returns over the period  $t = -260$  to  $t = -100$  trading days compared to the day of the merger announcement. Daily stock returns are gathered from Datastream. Returns are computed in dollars. In this regression, I only examine cross-border observations with a positive transfer of shareholder protection. I correct for possible fixed year and fixed target industry effects in all regressions, that data is available in the appendix. The GDP per capita is in constant March 2017 US Dollars and is obtained from the World Bank Development Indicators. I compute for all countries the total deal value by year, and divide this by the total GDP of the corresponding nation. Furthermore, I winsorize all variables at a 1% level. Robust t-statistics are in the parentheses.

	Positive Shareholder Protection Transfer														
	Sample						Creditor break-down			High MTB-ratio			Low MTB-ratio		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<i>Panel A: Investor protection</i>															
Shareholder Prot. Difference, Positive	0.012 (0.56)	0.044* (1.70)	0.028 (0.94)	0.046* (1.77)	0.048 (1.43)	0.052 (1.55)	0.050 (1.48)	0.060** (2.18)	0.036 (1.13)	0.031 (0.58)	0.051 (0.99)	0.095* (1.76)	0.024 (0.68)	0.021 (0.59)	0.018 (0.47)
Accounting Difference			0.002 (1.41)												
Corruption Control Difference				0.107 (1.33)		0.101 (1.08)		0.083 (0.99)	0.105 (1.17)		0.397** (2.58)	0.247 (1.50)		-0.198 (-1.55)	-0.231 (-1.64)
Creditor Rights Difference					-0.023* (-1.85)	-0.022* (-1.78)									
Acquirer Creditor Rights							-0.027* (-1.83)	-0.024* (-1.85)				-0.053** (-2.18)			0.003 (0.15)
Target Creditor Rights							0.014 (0.68)		0.013 (0.66)						
<i>Panel B: Country specific</i>															
Acquirer Currency	0.056 (0.26)	-0.242 (-0.81)	-0.228 (-0.69)	-0.261 (-0.88)	-0.136 (-0.40)	-0.177 (-0.52)	-0.132 (-0.39)	-0.229 (-0.76)	-0.213 (-0.64)	-0.874 (-1.45)	-1.028* (-1.77)	-0.784 (-1.37)	0.335 (0.69)	0.509 (1.03)	0.552 (1.05)
Target Currency	0.109 (0.52)	0.030 (0.11)	0.048 (0.16)	0.046 (0.16)	0.174 (0.56)	0.161 (0.52)	0.154 (0.49)	0.056 (0.20)	0.148 (0.47)	0.412 (0.55)	-0.151 (-0.20)	-0.045 (-0.06)	0.389 (1.22)	0.377 (1.20)	0.348 (1.05)
Log GDP difference	-0.003* (-1.73)	-0.003 (-1.57)	-0.004* (-1.72)	-0.004* (-1.90)	-0.003 (-1.27)	-0.004 (-1.55)	-0.003 (-1.16)	-0.004* (-1.92)	-0.004 (-1.52)	-0.004 (-1.09)	-0.008** (-2.16)	-0.007* (-1.72)	-0.001 (-0.44)	0.000 (0.05)	0.001 (0.16)
Acquirer Market Liquidity Value	-0.619 (-1.06)	-0.230 (-0.28)	-0.255 (-0.28)	-0.258 (-0.31)	-0.718 (-0.75)	-0.685 (-0.71)	-0.717 (-0.74)	-0.298 (-0.36)	-0.696 (-0.72)	-0.989 (-0.46)	-2.173 (-1.03)	-1.646 (-0.79)	0.220 (0.21)	0.379 (0.37)	0.389 (0.36)
Target Market Liquidity Value	0.174 (0.66)	0.071 (0.22)	0.102 (0.30)	0.076 (0.23)	0.847 (0.96)	0.763 (0.86)	0.812 (0.91)	0.074 (0.23)	0.634 (0.72)	1.767 (1.23)	1.473 (1.07)	2.050 (1.51)	-0.389 (-1.25)	-0.400 (-1.30)	-0.391 (-1.22)
<i>Panel C: Deal specific</i>															
Cash Only	0.029 (0.99)	0.020 (0.55)	0.012 (0.31)	0.022 (0.61)	0.029 (0.70)	0.028 (0.68)	0.027 (0.63)	0.021 (0.58)	0.032 (0.77)	-0.010 (-0.13)	-0.025 (-0.34)	-0.009 (-0.13)	0.039 (0.73)	0.019 (0.34)	0.023 (0.39)
Hostile	0.117 (0.92)	-0.197 (-1.13)	-0.199 (-1.10)	-0.184 (-1.05)	-0.157 (-0.85)	-0.148 (-0.80)	-0.146 (-0.78)	-0.162 (-0.92)	-0.167 (-0.90)	-0.250 (-0.78)	-0.320 (-1.04)	-0.214 (-0.71)	-0.210 (-0.96)	-0.301 (-1.34)	-0.306 (-1.31)
Log Deal Size	-0.001 (-0.20)	-0.009 (-1.00)	-0.007 (-0.71)	-0.010 (-1.05)	-0.011 (-1.14)	-0.012 (-1.15)	-0.012 (-1.19)	-0.013 (-1.34)	-0.009 (-0.89)	-0.026 (-1.37)	-0.032* (-1.73)	-0.038** (-2.07)	0.019 (1.33)	0.022 (1.56)	0.023 (1.51)
Percentage Shares Acquired	0.001 (1.18)	0.001 (0.95)	0.000 (0.68)	0.001 (0.88)	0.001 (0.82)	0.001 (0.75)	0.001 (0.85)	0.001 (1.02)	0.001 (0.73)	0.001 (0.69)	0.001 (0.75)	0.001 (0.86)	0.000 (0.04)	-0.000 (-0.15)	-0.000 (-0.24)

Table VII- Continued

Panel D: Firm specific	Positive Shareholder Protection Transfer														
	Sample						Creditor break-down			High MTB-ratio			Low MTB-ratio		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Horizontal	0.024 (0.79)	0.032 (0.76)	0.041 (0.91)	0.026 (0.60)	0.027 (0.57)	0.020 (0.42)	0.027 (0.57)	0.028 (0.64)	0.016 (0.35)	0.020 (0.22)	-0.030 (-0.34)	-0.025 (-0.29)	0.080 (1.34)	0.091 (1.53)	0.088 (1.34)
Acquirer FFO	-0.000 (-0.71)	-0.000 (-0.50)	-0.000 (-0.79)	-0.000 (-0.54)	-0.000 (-0.27)	-0.000 (-0.33)	-0.000 (-0.34)	-0.000 (-0.75)	-0.000 (-0.16)	-0.000 (-0.53)	-0.000 (-1.04)	-0.000 (-1.18)	-0.000 (-0.59)	-0.000 (-0.81)	-0.000 (-0.80)
Acquirer CF to Sales	0.005 (1.31)	0.004 (1.14)	0.004 (0.92)	0.005 (1.17)	-0.045 (-0.75)	-0.049 (-0.83)	-0.041 (-0.69)	0.006 (1.44)	-0.067 (-1.15)	-0.120 (-0.76)	-0.085 (-0.56)	-0.099 (-0.67)	0.006 (1.62)	0.006* (1.72)	0.006 (1.59)
Target TobinsQ	0.021** (2.40)	0.025** (2.20)	0.024** (2.01)	0.025** (2.22)	0.021* (1.74)	0.021* (1.79)	0.020* (1.70)	0.022* (1.96)	0.024** (2.07)	0.026 (1.43)	0.036** (2.02)	0.030* (1.70)	0.278* (1.71)	0.364** (2.14)	0.370** (2.03)
Constant	0.038 (0.69)	-0.115 (-0.40)	-0.063 (-0.21)	-0.058 (-0.20)	-0.186 (-0.61)	-0.137 (-0.45)	-0.168 (-0.55)	-0.066 (-0.23)	-0.112 (-0.37)	0.100 (0.27)	0.168 (0.48)	0.017 (0.05)	-0.571* (-1.79)	-0.675** (-2.10)	-0.666* (-1.98)
Number of observations	247	247	226	247	223	223	223	243	227	127	127	127	120	120	116
R-squared	0.081	0.369	0.392	0.376	0.400	0.405	0.401	0.388	0.393	0.429	0.485	0.523	0.670	0.685	0.685
R-squared adjusted	0.025	0.060	0.057	0.064	0.048	0.049	0.043	0.069	0.041	-0.160	-0.063	-0.002	0.229	0.250	0.212
Fixed year effects	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed industry effects	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

\*\*\*, \*\*, \* indicate significance at 1% percent, 5%, and 10% levels, respectively

## 5.2 Is there a premium for a transfer in shareholder protection?

Previous studies already show that shareholders are willing to pay for a positive transfer in investor protection (La Porta et al., 1998; Klapper & Love, 2004; Bris & Cabolis, 2008). In this study, I examine whether shareholder protection still is positively valued by managers and shareholders using the revised shareholder protection index of Djankov et al. (2008).

In Table VII I report the results of the multivariate OLS regression (8). The variable of interest is the difference (acquirer minus target) in shareholder protection between acquirer and target nation. More specifically, acquisitions where the shareholder protection of the acquirer nation is stronger relative to the target nation, correspondingly a positive transfer. From the initial TOB+Datastream sample of 929 cross-border acquisitions, there are 416 observations with a positive transfer of shareholder protection and 513 observations with a non-positive transfer. There remain 246 observations for which I have all data. In the regressions, I correct for country, deal- and firm specific variables. Furthermore, all but one of the regressions use year and industry fixed effects to control for possible omitted variables.

The results in model (2) and (4) are in support of the findings of Bris and Cabolis (2008). A positive transfer of shareholder protection in a merger has a positive effect on the announcement returns of the target company, a proxy for merger premium. A one-point transfer in shareholder protection results in a 4.6% higher merger premium, significant at a 10% level. In example, when a company from the United Kingdom acquires a company from the United States (a two-point revised ADRI difference), the merger premium is 9.2% higher compared to when it acquires a company from Spain (a zero-point revised ADRI difference).

Next, to ensure accuracy, I test shareholder protection on its robustness. As the correlation matrix shows, the revised ADRI index has a Pearson correlation of 0.329 with the index of creditor rights, significant at a 1% level. This could potentially cause multicollinearity problems. When I break up the difference in two separate variables, acquirer and target creditor rights, the correlation significantly decreases to respectively 0.263 and -0.107. Model (8) shows that, when control for corruption is added, the difference in shareholder protection is robust. The coefficient increases to 0.06 significant at a 5% level.

It is no surprise that the acquirer's protection of creditor rights has a negative impact on the target announcement returns. Strong creditor rights have negative wealth effect for shareholders. It results in inefficient liquidation, eliminating the option for continuation or value-destroying acquisition. Typically acquisitions with a high recovery value and low cash flow risk (Acharya et al., 2011). A one-point difference (acquirer minus target) in creditor rights results in a 2.4% lower merger premium, significant at a 10% level. When examining the control variables, it comes to notice that the logarithmic difference in GDP per capita is of significant effect in most

models. A one percent increase in the GDP per capita results in a 0.4% lower merger premium, significant at a 1% level. The negative coefficient is uniform with the data of previous studies. When the acquirer comes from a less economically developed country, or less protective country, targets from the United States receive a lower premium (Starks & Wei, 2004).

Additionally, I study whether a negative transfer of shareholder protection influences the merger premium. Appendix 3 summarizes the results for the multivariate OLS regressions. Model (1) indicates that a negative transfer of shareholder protection also has a negative impact on the merger premium. However, this is before correcting for fixed industry and year effects. Therefore, from the sample, there is insufficient statistical evidence that a negative transfer has a significant impact on the merger premium.

### **5.3 Is there a premium for a transfer in accounting standards?**

The disclosure of financial information is a strong mechanism to overcome expropriation. When earnings disclosure by geographic segments become voluntary, this significantly influences managers' investment behavior (Hope and Thomas, 2008). As agency theory predicts, firms show an increase in foreign sales growth and a significant decrease in foreign profit margin. Therefore, I expect that a positive transfer of accounting standards of the target company results in a higher merger premium. Note that in acquisitions of 100% of the shares inevitably consolidation of accounting standards takes place.

Model (1) in Table VIII reports how the individual quality of the accounting standards of the target and acquiring company impacts the merger premium. The coefficient for the target company is negative and 0.004, significant at a 5% level. In cross-border acquisitions, a higher quality of accounting standards of the target company results in a lower merger premium. This is inconsistent with the findings of Bris and Cabolis (2008) who find that acquirers penalize weak accounting standards of the target in the premium they pay. A possible explanation can come from the Efficient Market Hypothesis. Due to increased transparency in the target, all possible synergies are already incorporated in the share price. Therefore, a supplementary premium is destroying value for the acquirers' shareholders.

When evaluating the difference in accounting standards (acquirer minus target), I find that a positive transfer results in a higher merger premium. Model (4) to (7) show a coefficient of 0.004, significant at a 5% and 10% level. The variable is robust when controlling for other measures of investor protection. When a firm reports per IFRS standards (accounting score of 83) acquires a company who reports per US GAAP (accounting score of 71), the merger premium is 4.8% higher compared to when both companies use the same accounting method. The improvement in accounting standards effectively result in less expropriation and lower agency costs. These synergies are valuable for the acquirer. Alternatively, the relative opaqueness and

**Table VIII**

**Explaining Merger Premiums with a Positive Transfer of Accounting Standards – Multivariate Analysis**

The table shows the output of a multivariate regression of the TOB+Datastream sample. The dependent variable is the BHCAR of the event study with an event window of  $t = -1$  to  $t = 1$ . The abnormal returns are calculated from the market model estimated using daily company stock and MSCI returns over the period  $t = -260$  to  $t = -100$  trading days compared to the day of the merger announcement. Daily stock returns are gathered from Datastream. Returns are computed in dollars. In this regression, I only examine cross-border observations with a positive transfer of accounting standards. I correct for possible fixed year and fixed target industry effects in all regressions, that data is available in the appendix. The GDP per capita is in constant March 2017 US Dollars and is obtained from the World Bank Development Indicators. I compute for all countries the total deal value by year, and divide this by the total GDP of the corresponding nation. Additionally, model (8) to (13) the sample is split up in two, separated by the median sample Tobin's Q. I winsorize all variables at a 1% level. Robust t-statistics are in the parentheses.

	Positive Accounting Transfer														
	Sample							High MTB-ratio				Low MTB-ratio			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<i>Panel A: Investor protection</i>															
Acquirer Accounting Score	0.001 (0.23)														
Target Accounting Score	-0.004** (-2.13)														
Accounting Difference, Positive		0.002 (1.46)	0.003* (1.84)	0.004* (1.94)	0.004* (1.89)	0.004* (1.90)	0.004** (2.00)		-0.001 (-0.25)	0.001 (0.31)	-0.001 (-0.17)		0.002 (0.54)	0.007* (1.81)	0.005 (1.57)
Shareholder Protection Difference				0.004 (0.28)				0.042* (1.85)				0.013 (0.73)			
Corruption Control Difference					-0.042 (-0.44)		-0.065 (-0.65)		0.256 (1.48)		0.229 (1.30)		-0.318** (-2.17)		-0.256** (-2.06)
Creditor Rights Difference						-0.012 (-1.26)	-0.012 (-1.25)			-0.016 (-0.99)	-0.012 (-0.75)			0.002 (0.15)	0.005 (0.40)
<i>Panel B: Country specific</i>															
Acquirer Currency	0.353 (0.99)	0.270 (1.23)	0.435 (1.25)	0.463 (1.31)	0.448 (1.27)	0.293 (0.81)	0.310 (0.85)	0.418 (0.69)	0.869 (1.23)	0.636 (0.88)	0.722 (1.00)	-0.281 (-0.61)	0.132 (0.28)	0.700 (1.48)	0.740 (1.65)
Target Currency	0.122 (0.54)	-0.012 (-0.07)	0.128 (0.57)	0.119 (0.53)	0.130 (0.57)	0.171 (0.75)	0.176 (0.78)	0.003 (0.00)	0.034 (0.05)	0.408 (0.59)	0.128 (0.18)	0.574** (2.07)	0.355 (1.27)	0.835*** (3.36)	0.693*** (2.83)
Log GDP difference	-0.005* (-1.93)	-0.005*** (-2.65)	-0.004* (-1.75)	-0.004* (-1.70)	-0.004 (-1.62)	-0.004* (-1.70)	-0.004 (-1.55)	-0.001 (-0.15)	-0.005 (-1.15)	-0.004 (-0.98)	-0.006 (-1.27)	-0.000 (-0.07)	-0.001 (-0.27)	0.002 (0.42)	0.002 (0.49)
Acquirer Market Liquidity Value	1.511* (1.76)	0.644 (0.98)	1.269 (1.53)	1.229 (1.46)	1.333 (1.58)	1.107 (1.28)	1.219 (1.38)	2.042 (1.52)	1.810 (1.19)	2.656* (1.72)	2.093 (1.32)	1.614 (1.26)	1.230 (0.89)	0.657 (0.51)	0.542 (0.44)
Target Market Liquidity Value	-0.066 (-0.07)	-0.337 (-0.50)	-0.189 (-0.21)	-0.095 (-0.10)	-0.268 (-0.29)	-0.369 (-0.40)	-0.488 (-0.52)	2.731 (1.35)	2.310 (1.01)	1.795 (0.78)	2.143 (0.94)	0.726 (0.71)	0.008 (0.01)	-0.851 (-0.83)	-1.145 (-1.16)
<i>Panel C: Deal specific</i>															
Cash Only	-0.006 (-0.17)	0.019 (0.69)	-0.009 (-0.25)	-0.010 (-0.29)	-0.006 (-0.16)	-0.035 (-0.96)	-0.030 (-0.81)	0.030 (0.53)	0.007 (0.10)	0.012 (0.17)	-0.005 (-0.08)	0.014 (0.28)	0.023 (0.45)	-0.118** (-2.29)	-0.084 (-1.62)
Hostile	0.549*** (3.10)	0.349*** (2.94)	0.546*** (3.08)	0.543*** (3.05)	0.546*** (3.07)	1.034*** (3.75)	1.036*** (3.75)	0.184 (0.61)	0.182 (0.58)	0.000 (.)	0.000 (.)	-0.692* (-1.72)	-0.277 (-1.07)	-0.231 (-1.08)	-0.291 (-1.42)
Log Deal Size	-0.009 (-1.01)	0.001 (0.08)	-0.009 (-1.03)	-0.010 (-1.07)	-0.009 (-1.06)	-0.012 (-1.37)	-0.013 (-1.43)	-0.021 (-1.60)	-0.017 (-1.22)	-0.020 (-1.41)	-0.017 (-1.22)	-0.020 (-1.26)	-0.002 (-0.11)	-0.005 (-0.33)	-0.002 (-0.12)
Percentage Shares Acquired	0.001 (0.93)	0.000 (0.88)	0.001 (0.86)	0.001 (0.89)	0.000 (0.81)	0.001 (1.37)	0.001 (1.32)	-0.000 (-0.00)	-0.000 (-0.22)	-0.000 (-0.11)	-0.000 (-0.05)	-0.000 (-0.26)	0.000 (0.39)	0.002*** (2.95)	0.002*** (2.87)

Table VIII – Continued

Panel D: Firm specific	Positive Accounting Transfer														
	Sample							High MTB-ratio			Low MTB-ratio				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Horizontal	0.037 (0.92)	0.026 (0.89)	0.034 (0.84)	0.034 (0.85)	0.035 (0.85)	0.019 (0.45)	0.020 (0.47)	0.009 (0.13)	-0.017 (-0.22)	0.012 (0.14)	0.001 (0.01)	0.015 (0.24)	0.031 (0.50)	-0.060 (-1.02)	-0.049 (-0.88)
Acquirer FFO	0.000 (0.99)	0.000 (0.60)	0.000 (0.91)	0.000 (0.82)	0.000 (0.91)	0.000 (0.59)	0.000 (0.60)	-0.000 (-0.10)	-0.000 (-0.78)	-0.000 (-1.14)	-0.000 (-1.05)	0.000 (0.41)	0.000 (0.77)	-0.000* (-1.93)	-0.000 (-1.63)
Acquirer CF to Sales	-0.140*** (-4.28)	-0.137*** (-4.78)	-0.138*** (-4.22)	-0.138*** (-4.18)	-0.139*** (-4.23)	-0.125*** (-3.78)	-0.127*** (-3.81)	-0.188*** (-4.14)	-0.190*** (-3.97)	-0.194*** (-4.05)	-0.185*** (-3.87)	0.009 (0.25)	-0.027 (-0.25)	0.031 (0.34)	0.040 (0.46)
Target Tobin's Q	0.015 (1.63)	0.011 (1.50)	0.015 (1.60)	0.015 (1.60)	0.014 (1.56)	0.015* (1.68)	0.015 (1.62)	0.018 (1.60)	0.028** (2.23)	0.025* (2.01)	0.028** (2.25)	-0.084 (-0.49)	-0.267 (-1.58)	0.121 (0.79)	0.006 (0.04)
Constant	0.181 (0.55)	0.048 (0.84)	-0.091 (-0.43)	-0.101 (-0.48)	-0.087 (-0.41)	-0.101 (-0.48)	-0.095 (-0.45)	-0.010 (-0.04)	0.056 (0.20)	0.050 (0.18)	0.025 (0.09)	0.349 (1.16)	0.044 (0.16)	-0.280 (-1.13)	-0.240 (-1.02)
Number of observations	204	204	204	203	203	193	193	130	109	106	106	121	103	95	95
R-squared	0.499	0.216	0.495	0.497	0.496	0.527	0.528	0.601	0.677	0.671	0.684	0.622	0.757	0.858	0.877
R-squared adjusted	0.192	0.160	0.191	0.185	0.186	0.212	0.209	0.128	0.197	0.185	0.198	0.129	0.284	0.527	0.576
Fixed year effects	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed industry effects	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

\*\*\*, \*\*, \* indicate significance at 1% percent, 5%, and 10% levels

inefficient management of the target can be regarded as a risk as well. The data shows that the synergies are dominant over the risk-aversion of managers.

Examining the country specific control variables, the differences in GDP per capita between the acquiring and target nation again explain the merger premium. The negative sign is similar as I find in Table VII, and Starks and Wei (2004) find in their study. Furthermore, in model (1) the acquirer market liquidity, computed as the total deal value in a year divided by country GDP, positively impacts the merger premium. Essentially, the market liquidity is a measure for investor sentiment. High investor sentiment positively benefits forecasts and market expectations, therefore increasing the merger premium.

Moreover, the dummy variable hostile takeover is the only deal specific control variable significantly influencing the merger premium. Hostile takeover results in a 54.6% higher merger premium compared to friendly takeover. In model (6) and (7) the supplementary premium for hostile targets even doubles to 103.4%, all significant at a 1% level. The positive effect on the merger premium is consistent with previous findings (Schwert, 2000). However, here hostile offers are associated with higher merger premiums of 15.1%. The difference may arise from the scarcity of hostile takeovers in the sample.

Lastly, the acquirer cash flow to sales has a negative impact on the merger premium. Thus, firms with a relatively high cash flow to sales ratio pay significantly lower merger premiums compared to firms with a low ratio. This can be related to the specific industry companies with a low cash flow to sales ratio are in. Generally, industries characterized by a low cash flow to sales ratio, are mature and must grow inorganic rather than organic. Consequently, from an agency theory perspective, managers are more inclined to engage in empire building and overpay for their targets. In the regressions, I only correct for target industry fixed effects, not for acquirer industry effects.

#### **5.4 Investor protection in value and growth stocks**

Some industries value strong investor protection more than others. For instance, companies with relatively high capital and R&D expenditures have relatively high agency costs associated with them. In these industries, a strong set of corporate governance mechanism is more essential. I divide the sample by the median market-to-book ratio, being 1.325. The half with the highest market-to-book ratio are classified as growth stocks, and the half with the lowest market-to-book ratio value stocks. Growth stocks are characterized by high capital and R&D expenditures. Chung et al. (2003) find that firm's capital and R&D investments depend significantly on its corporate governance structure. Therefore, I expect that a positive transfer in investor protection is higher valued higher in growth stocks than value stocks.

When examining the difference in shareholder protection, both Table VII and Table VIII

**Table IX**

The table presents the effect following a positive transfer of investor protection in a cross-border acquisition on the merger premium. Here, shareholder protection and accounting standards are used as metrics for investor protection. Displayed are both the expected results based on the literature, and empirical results from the event study and multivariate analysis. The empirical results for shareholder protection are derived from Table VI and the results for accounting standards from Table VII. Only statistically significant results are included.

	Expected		Empirical results	
	Growth stocks	Value stocks	Growth stocks	Value stocks
Shareholder protection	High	Low	0.095*	-
Accounting standards	High	Low	-	0.007*

\*\*\*, \*\*, \* indicate significance at 1% percent, 5%, and 10% levels

present evidence for a positive effect for growth stocks. The coefficient in model (12) from Table VII is 0.095, significant at a 10% level. The coefficient in model (8) from Table VIII is 0.042, also significant at a 10% level. The results indicate that a positive transfer of shareholder protection increases the merger premium. This is in line with the expectations following from the study of Chung et al. (2003). Noteworthy is that the significance is not robust in all models, therefore requiring more investigation to further draw any conclusions. For value stocks, it appears that shareholder protection has no significant impact on the merger premium.

When studying cross-border acquisitions with a positive transfer in accounting standards, from model (14) in Table VIII I conclude that an increase in accounting standards increases the merger premium for value stocks. When the target company consolidates its accounting methodology from US GAAP (accounting score of 71) to IFRS (83 accounting score), the merger premium is 8.4% higher compared to no consolidation. For value stocks, the higher premium can be attributed to the additional monitoring and disclosure of financial information. The benefits of monitoring prevail the additional regulatory and compliance costs associated with the new accounting method. It is surprising that there is no significant effect in growth stocks. An explanation is that in growth stocks, a large part of the company valuation depends on future projects and earnings. Therefore, consolidation in accounting standards having less impact on growth stocks than value stocks.

In mergers with a positive transfer of accounting standards, where the target is classified as a value stock, the effect of control of corruption is negatively associated with the merger premium, significant at a 5% level. This suggests that an acquirer is prepared to pay a higher premium for a value stock from a non-corruptive country than a corruptive country. In example, a firm from the United Kingdom (control of corruption score of 0.83) acquiring a value stock from the Russian Federation (control of corruption score of 0.25) results in a 14.85% lower premium than when it would acquire in Canada (control of corruption 0.83)<sup>4</sup>.

A possible explanation is that value stocks are more capable of controlling corruption than

<sup>4</sup> The control of corruption scores is from 2015 and data gathered from the International Country Risk Guide (ICRG). The coefficient for control of corruption is from model (15).



growth stocks. This can be explained by value stocks typically being more mature companies, and having a better organizational and governance structure in place. When acquiring companies from a corruptive country, value stocks may be confident to battle the corruption and increase efficiency. For the synergy in governance mechanisms, a manager might be willing to pay a premium.

Assessing the control variables in Table VIII, for value stocks I find that an appreciation of the target nation currency results in a higher merger premium, significant at a 1% level. This is similar as the coefficients in Table VII for large companies in the early period. Furthermore, it appears from model (14) and (15) that the percentage of shares acquired in the acquisition significantly relates to the merger premium for value stocks. The coefficient is 0.002 and significant at a 1% level. An acquisition of 100% of the shares results in a 20% higher premium. This premium can be attributed to the control premium, an acquirer getting a controlling share in the company. The findings are in line with Dyck and Zingales (2004) who find a positive correlation between the premium and acquisition of a controlling block.

In conclusion, the effect of investor protection in value and growth stocks deem for further research. It is interesting that value stocks pay a premium for a change in accounting standards, and growth stocks see more value in shareholder protection as the overview in Table IX shows. For future research, I recommend to study more thoroughly what the exact driver is between the dispersion is.

## **5.5 Interaction effect between investor sentiment and investor protection**

In assumption, investor sentiment rests on the believe that noise traders fuel mispricing in financial markets. Mispricing is the result of an uninformed demand shock simultaneous with an arbitrage constraint in the market (Baker and Wurgler, 2006). In this way, investor sentiment critically impacts the cross-section market valuation of companies. The degree of mispricing differs among companies and industries. In general, investor sentiment is stronger in markets which are less transparent and harder to value. Therefore, I expect that some firms value an improvement in the quality of investor protection more than others. Firms with high capital and R&D expenditures value investor protection more than companies with low growth opportunities. In periods of high sentiment, I expect such companies to overvalue the benefit of the improvement in quality of investor protection, and pay higher premiums.

Table X displays the TOB+Datastream divided into two samples; cross-border acquisitions occurring in a period of low and high investor sentiment. The investor sentiment index of Baker and Wurgler (2006) quantifies each month with a sentiment score. I regard all months with a positive score as periods with high investor sentiment, and all months with a

**Table X**

**Interaction effect of Investor Sentiment and Investor Protection on the merger premium– Multivariate Analysis**

The table shows the output of a multivariate regression of the TOB+Datastream sample. The dependent variable is the BHCAR of the event study with an event window of  $t = -1$  to  $t = 1$ . The abnormal returns are calculated using the market model, estimated using daily company stock and MSCI returns over the period  $t = -260$  to  $t = -100$  trading days compared to the day of the merger announcement. Daily stock returns are gathered from Datastream. Returns are computed in dollars. I correct for possible fixed year and fixed target industry effects in all regressions, that data is available in the appendix. The GDP per capita is in constant March 2017 US Dollars and is obtained from the World Bank Development Indicators. I compute for all countries the total deal value by year, and divide this by the total GDP of the corresponding nation. Additionally, model (8) to (13) the sample is split up in two, separated by the median sample Tobin's Q. I winsorize all variables at a 1% level. Robust t-statistics are in the parentheses.

	Low Sentiment						High Sentiment									
	Sample						Sample				High MTB-ratio		Low MTB-ratio			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<i>Panel A: Investor protection</i>																
Shareholder Prot. Difference	-0.001 (-0.09)						-0.005 (-0.52)									
Shareholder Prot. Difference, Positive		0.048 (0.92)	0.076 (1.20)					0.050 (1.41)	0.040 (0.78)				0.152 (0.90)		-0.113 (-0.93)	
Accounting Difference				-0.000 (-0.16)						0.001 (0.58)						
Accounting Difference, Positive					0.001 (0.12)	0.003 (0.43)					0.004** (2.02)	0.005** (2.42)		0.002 (0.43)		0.010* (2.39)
Corruption Control Difference			0.084 (0.47)			-0.364 (-1.16)			0.147 (1.09)			-0.064 (-0.56)	-0.079 (-0.28)	0.120 (0.58)	0.150 (0.33)	-0.005 (-0.03)
Creditor Rights Difference			-0.023 (-1.06)			0.006 (0.20)			-0.002 (-0.09)			-0.010 (-0.90)	-0.042 (-0.74)	-0.003 (-0.13)	-0.028 (-0.32)	0.012 (0.42)
<i>Panel B: Country specific</i>																
Acquirer Currency	-0.446 (-1.33)	0.008 (0.02)	0.116 (0.21)	-0.371 (-1.14)	0.025 (0.02)	-0.234 (-0.20)	-0.343 (-1.37)	-0.023 (-0.05)	-0.278 (-0.42)	-0.343 (-1.25)	0.536 (1.24)	0.390 (0.88)	-1.070 (-0.62)	0.675 (0.71)	2.689 (0.90)	2.301** (2.78)
Target Currency	-0.042 (-0.18)	-0.010 (-0.02)	-0.190 (-0.29)	-0.068 (-0.29)	0.609 (1.10)	0.737 (1.28)	-0.063 (-0.27)	-0.297 (-0.81)	-0.133 (-0.29)	0.070 (0.29)	0.055 (0.17)	0.178 (0.53)	-0.635 (-0.21)	0.281 (0.23)	-0.609 (-0.46)	1.280* (2.38)
Log GDP difference	0.000 (0.03)	-0.003 (-0.70)	-0.002 (-0.39)	0.000 (0.14)	-0.003 (-0.51)	0.000 (0.03)	-0.002 (-1.09)	-0.004 (-1.30)	-0.004 (-1.00)	-0.001 (-0.94)	-0.002 (-0.86)	-0.002 (-0.73)	0.002 (0.19)	-0.001 (-0.13)	0.003 (0.19)	0.003 (0.45)
Acquirer Market Liquidity Value	-0.803 (-0.86)	0.923 (0.36)	-0.066 (-0.02)	-0.624 (-0.69)	-1.251 (-0.45)	-3.386 (-1.09)	0.032 (0.05)	-0.241 (-0.23)	-1.010 (-0.75)	0.035 (0.05)	-0.623 (-0.60)	-0.919 (-0.89)	-3.601 (-1.17)	0.132 (0.04)	0.017 (0.01)	-0.082 (-0.05)
Target Market Liquidity Value	1.589* (1.76)	-1.770 (-0.98)	-0.943 (-0.48)	0.984 (1.14)	1.938 (0.90)	0.905 (0.38)	-0.171 (-0.64)	0.028 (0.09)	0.887 (0.67)	-0.180 (-0.65)	1.793* (1.77)	2.248** (2.07)	4.953 (1.66)	4.968** (2.21)	2.018 (0.28)	-1.281 (-0.41)
<i>Panel C: Deal specific</i>																
Cash Only	-0.006 (-0.15)	0.012 (0.15)	0.004 (0.04)	-0.019 (-0.50)	-0.052 (-0.54)	-0.084 (-0.80)	0.023 (0.90)	0.030 (0.61)	0.014 (0.23)	0.012 (0.43)	0.003 (0.07)	-0.008 (-0.19)	0.030 (0.19)	-0.058 (-0.65)	0.130 (0.64)	-0.082 (-0.92)
Hostile	-0.062 (-0.18)	0.000 (.)	0.000 (.)	-0.158 (-0.48)	0.000 (.)	0.000 (.)	-0.064 (-0.98)	-0.096 (-0.54)	-0.051 (-0.25)	-0.053 (-0.79)	0.671*** (4.17)	1.152*** (4.52)	0.081 (0.21)	0.000 (.)	-0.071 (-0.13)	-0.556* (-2.02)
Log Deal Size	-0.007 (-0.69)	0.003 (0.19)	-0.001 (-0.05)	-0.002 (-0.24)	-0.013 (-0.51)	-0.010 (-0.42)	0.007 (0.94)	-0.016 (-1.10)	-0.020 (-1.29)	0.004 (0.53)	0.000 (0.01)	-0.004 (-0.35)	-0.036 (-1.04)	-0.015 (-0.84)	0.007 (0.22)	-0.009 (-0.20)
Percentage Shares Acquired	0.001* (1.97)	-0.000 (-0.04)	0.000 (0.02)	0.002** (2.35)	0.001 (0.68)	0.002 (1.10)	0.001 (1.54)	0.001 (0.74)	0.000 (0.30)	0.001 (1.46)	0.000 (0.60)	0.001 (1.02)	-0.002 (-0.59)	-0.001 (-0.46)	-0.001 (-0.45)	0.004* (2.38)

**Table X – Continued**

	Low Sentiment						High Sentiment									
	Sample						Sample				High MTB-ratio		Low MTB-ratio			
<i>Panel D: Firm specific</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Horizontal	0.001 (0.03)	0.156 (1.65)	0.145 (1.42)	0.023 (0.54)	0.078 (0.68)	0.088 (0.64)	-0.009 (-0.32)	-0.061 (-1.00)	-0.072 (-0.94)	0.007 (0.23)	-0.012 (-0.24)	-0.020 (-0.42)	-0.006 (-0.03)	-0.059 (-0.51)	0.259 (1.30)	-0.240* (-2.43)
Acquirer FFO	-0.000 (-0.40)	-0.000 (-1.17)	-0.000 (-0.62)	-0.000 (-0.11)	0.000 (0.33)	-0.000 (-0.13)	-0.000 (-0.20)	0.000 (1.18)	0.000 (0.27)	-0.000 (-0.24)	0.000 (0.84)	0.000 (0.13)	0.000 (0.75)	0.000 (0.75)	-0.000 (-0.37)	-0.000 (-1.25)
Acquirer CF to Sales	0.006 (1.40)	0.007 (1.43)	-0.080 (-0.86)	0.005 (1.37)	-0.208 (-0.83)	-0.179 (-0.66)	-0.000 (-0.07)	-0.084 (-0.95)	-0.048 (-0.48)	-0.000 (-0.05)	-0.138*** (-4.81)	-0.132*** (-4.60)	-0.306 (-1.26)	-0.206*** (-5.20)	0.187 (0.85)	0.137 (1.33)
Target Tobin's Q	0.017* (1.76)	0.041** (2.06)	0.042* (1.94)	0.018* (1.97)	0.024 (1.37)	0.024 (1.31)	-0.012 (-1.35)	0.007 (0.43)	0.011 (0.62)	-0.019* (-1.93)	-0.035** (-2.23)	-0.033** (-2.15)	-0.005 (-0.14)	-0.008 (-0.33)	-0.477 (-0.85)	0.426 (1.48)
Constant	-0.108 (-0.30)	0.074 (0.17)	-0.036 (-0.08)	-0.121 (-0.35)	0.322 (0.80)	0.243 (0.59)	-0.184 (-0.78)	0.015 (0.05)	0.059 (0.16)	-0.148 (-0.61)	-0.026 (-0.13)	-0.042 (-0.22)	-0.349 (-0.67)	0.104 (0.36)	-0.340 (-0.44)	-0.149 (-0.38)
Number of observations	229.000	106.000	99.000	218.000	81.000	78.000	366.000	141.000	124.000	351.000	133.000	126.000	64.000	67.000	60.000	59.000
R-squared	0.373	0.489	0.522	0.413	0.575	0.646	0.271	0.622	0.681	0.285	0.730	0.774	0.903	0.945	0.991	0.971
R-squared adjusted	0.084	-0.094	-0.144	0.127	-0.416	-0.436	0.057	0.254	0.246	0.062	0.469	0.514	0.389	0.673	0.498	0.666
Fixed year effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed industry effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

\*\*\*, \*\*, \* indicate significance at 1% percent, 5%, and 10% levels

negative score as low investor sentiment.

Following the multivariate regressions, in periods of low investor sentiment a positive transfer in accounting standards or shareholder protection does not significantly account for a higher merger premium anymore. Over the full sample, in first instance, this is confirmed in *H2* and *H3*. A one-point positive transfer in shareholder protection results in a 4.6% higher premium, and a twelve-point transfer in accounting standards (US GAAP to IFRS) produces a 4.8% higher premium. Both variables significant at a 5% level. Thereupon, I conclude that low sentiment negatively influences managers' reckoning of investor protection.

In periods of high sentiment, the coefficient for a positive transfer in shareholder protection is not significantly correlated with the merger premium. When exploring the transfer in accounting standards, in model (12) I note a positive coefficient of 0.005 significant at a 5% level. This is a slight increase compared with the coefficient of 0.004 recorded in model (7) of Table VIII. This is an indication that high sentiment positively influences the assessment of an increase in the quality of investor protection.

Relating sentiment to investor protection in different types of companies, I expect that high sentiment positively inflates the valuation of investor protection. Model (16) of Table X supports this expectation. In value stocks, a period of high sentiment increases the valuation of a positive transfer of investor protection. The premium increases by 2.5x with respect to the findings in *H3*, significant at a 10% level. When a target company shifts from US GAAP to IFRS accounting (12-point accounting score difference), the merger premium increases by 12% compared to a merger without a change in accounting method. To my knowledge, this is the first study relating sentiment to investor protection. The discovery demands for further research regarding the effect of sentiment on cross-border determinants.

## **VI. Conclusion**

Studying the effect of investor protection on cross-border acquisitions, the objective of this paper has been five-fold. First, I try to assess whether a transfer (acquirer minus target investor protection) in investor protection is a driver for cross-border acquisitions. Second, extending the work of Bris and Cabolis (2008), I investigate whether there still exists a premium for shareholder protection using the revised Antidirector Rights Index of Djankov et al. (2008), and extending the period from January 1990 to January 2015. Third, using the same extended period, I study the effect of a positive transfer in accounting standards. Fourth, I attempt to find a difference in merger premium paid for a transfer in investor protection in value and growth stocks, which is a unique perspective. Lastly, I contribute to the existing literature by examining whether there is an interaction effect between investor sentiment and investor protection.

Following the methodology of Bris and Cabolis (2008) I use four metrics for investor

protection being (1) shareholder protection, (2) accounting standards, (3) creditor protection, and (4) control of corruption. For large public companies, a transfer in investor protection is a significant driver for cross-border acquisitions. Over the course of time, I find a shift from shareholder protection to accounting standards as a driver. In the period before 2005, I find that managers have a higher propensity to engage in a cross-border merger when a positive transfer in shareholder protection takes place. This supports the view that firms with poor investor protection operate less efficiently and suffer from higher agency costs. Acquiring managers recognize this and identify additional synergy opportunities. In the period after January 2005, accounting standards increase in significance in the target selection process. This may be caused by the emphasis on the Sarbanes-Oxley Act, stimulating a worldwide convergence in accounting standards.

To further find evidence that managers value investor protection I investigate whether they are prepared to pay a premium for a transfer. Using the revised ADRI index and extended period, this study confirms the findings of previous studies. I find that managers pay a premium for both a positive transfer in shareholder protection and accounting standards. A one-point transfer in shareholder protection results in a 4.6% higher merger premium. In example, when a company from the United Kingdom acquires a company from the United States (a two-point revised ADRI difference), the merger premium is 9.2% higher compared to a domestic acquisition. Additionally, as the result of consolidating accounting standards in a merger, the acquirer is prepared to pay a 4.8% higher premium when the target adjusts from US GAAP to IFRS accounting (a 12-point accounting score difference).

A novel perspective is that I examine how distinctive value and growth stocks assess a positive transfer in investor protection. I find that growth stocks are willing to pay a higher premium, and value stocks not, compared to the full sample. The difference between the two different types of firms is in line with the expectations, as the overview in Table IX presents. However, the empirical results of a consolidation in accounting standards is different from the expected outcome. I find that value stocks are prepared to pay a premium for a positive transfer in accounting standards, and growth stocks not. A possible explanation is that growth stocks derive a large part of their value from future projects and may consequently be less sensitive for consolidating accounting standards. Nonetheless, Chung et al. (2003) find that firm's capital and R&D investments significantly depend on the corporate governance structure. For future research, it is important to explore why a transfer in accounting standards is not valued in cross-border mergers of a growth stocks.

Lastly, I contribute to the existing literature by finding an interaction effect between investor protection and investor sentiment. In periods of low sentiment, the premium for investor protection completely evades. Conversely, high sentiment inflates how managers value investor

protection. Managers of value stocks, pay a 2.5 times higher premium in periods of high sentiment with respect to earlier findings. Consequently, the premium increases by 12% when a consolidation takes place in the target company from US GAAP to IFRS accounting standards. The findings underline how the decisions-making of managers is determined by irrationalities.

## **VII. Limitations and future recommendations**

The conclusions drawn in this study rest on several assumptions and a set of restrictions. Here I discuss the limitations, and what kind of implications they have on the results. Furthermore, several recommendations are provided for future research.

Investor protection remains an arbitrarily defined concept. In this study, I use institutional variables which are correlated with other proxies of financial development. However, there are several other ways in quantifying the measure. An alternative proxy for investor protection is defined by Dyck and Zingales (2004). The index measures the value of private benefits of control, computed as the difference between the share price on an exchange and the price for acquiring a control block. Nenova (2003) computes the value of control as the difference in the price of acquiring voting and non-voting shares. A potential benefit of these indices is that they are deducted from market valuations, making it easily applicable.

When considering the methodology, first, due to the limited amount of observations I was bound to drop the matching pairs methodology. The technique is used to isolate corporate governance effects from country-and firm-specific data. Even after easing the matching criteria the sample appears too small to produce reliable information. I adjusted the matching criteria by loosening the maximum period matching observations could diverge. Also, I increased the variation in size, matching target firms were allowed to have. Nonetheless, the matching pairs sample remained too small. To resolve the matching pairs issue, I extended the multivariate regression analysis by including fixed year and industry effects. Additionally, I added a variable controlling for deal size. In this way, I try to isolate the effect of investor protection in a similar way as the matching pairs process. The results of the second and third hypothesis are in line with earlier theory validating the alternative. Secondly, A potential improvement over the market model in the event study, is the multi-factor model. Although Brown and Weinstein (1985) show that the improvement is limited, it may increase the statistical power of the event study. However, due to the complexity of the multi-factor model, the market model tends to be the preferred model of use in practice. In future research, I would recommend to test whether a multi-factor model increases statistical power of the results.

Taking the sample into account, I only include acquisitions where both the acquiring and target firms are publicly listed. Such firms are inherently bigger in size. Therefore, to verify that the conclusions in this study are also justified in smaller and private companies, additional

research is necessary. Due to the limited amount of data such a study is more troublesome. Furthermore, an extensive amount of observations is dropped in the process of merging M&A data from Thomson One Banker, with stock price information from Datastream. Table I shows that the sample distribution significantly changed which potentially affects the outcome of this study. Developed countries are more likely to record firm specific and stock price data, causing the sample to shift weight towards such countries. Furthermore, due to the lack of information concerning the accounting consolidation of long-term investments I was constrained to only include mergers where 100% of the shares are owned after the merger. In such acquisitions, inevitably consolidation takes place.

Moreover, several studies use a self-constructed merger laws index to account for the effect of antitrust laws and merger controls (Dyck & Zingales, 2004; Bris & Cabolis, 2008). They collect information on the date of enactment or latest amendment of the antitrust laws, and merger controls from various surveys. In addition, the self-constructed index measures the quality of the national merger law. As the index is not publicly available and financial law is outside of the scope of this study, I decided to omit the index as control variable.

With respect to the results, first, additional research is needed on the effect of an improvement in accounting standards in value and growth stocks. Inconsistent with economic theory, I find significant results in value stocks, but not in growth stocks. As value stocks are riskier, they might value an improvement of accounting standards. However, this is conflicting with the findings of shareholder protection. Here, growth stocks value the positive transfer whereas in value stocks no premium is found. The contradictory outcome contemplates other underlying economic mechanisms, laying ground for future research. Also, further work can be done studying in which industries investor protection is valued the most. Secondly, the perspective to study the merger premium for investor protection in periods of low and high sentiment is unique. Periods of high (low) sentiment, inflates (deflates) the valuation of an improvement in accounting standards in value stocks. For shareholder protection I find no statistically significant effect. However, the sign-flip in Table IX, where growth stocks positively value shareholder protection and value stocks negatively, raises questions. This all indicates that more research can be done on the effect of investor protection on cross-border acquisitions.

### **VIII. Literature**

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## IX. Appendix

### Appendix 1

#### Correlation matrix TOB+Datastream sample

	Revised ADRI Diff	Acct Diff	Corr Cntrl Diff	Cred Rights Diff	Targ Corr Cntrl	Targ Cred Rights	Curr Diff	Targ Curr	Acq Curr	GDP Diff	Acq GDP per Cap	Targ GDP per Cap	Targ Mkt Liq Numb	Hori- zontal	Acq Tobins Q	Acq FFO	Acq CF to Sales	Targ Assets
Rev ADRI Diff	1.000																	
Accounting Diff	0.139 (0.000)	1.000																
Corrupt Cntrl Diff	0.115 (0.000)	0.302 (0.000)	1.000															
Cred Rights Diff	0.593 (0.000)	0.076 (0.000)	0.000 (0.981)	1.000														
Targ Corrupt Cntrl	-0.033 (0.043)	-0.198 (0.000)	-0.358 (0.000)	0.026 (0.120)	1.000													
Targ Cred Rights	-0.199 (0.000)	0.007 (0.665)	0.022 (0.182)	-0.388 (0.000)	-0.224 (0.000)	1.000												
Currency Diff	0.026 (0.115)	-0.165 (0.000)	-0.104 (0.000)	0.051 (0.003)	0.065 (0.000)	-0.069 (0.000)	1.000											
Targ Currency	-0.011 (0.492)	0.090 (0.000)	0.053 (0.001)	-0.034 (0.044)	-0.253 (0.000)	0.140 (0.000)	-0.402 (0.000)	1.000										
Acq Currency	0.007 (0.689)	-0.016 (0.349)	-0.011 (0.495)	-0.005 (0.789)	-0.223 (0.000)	0.103 (0.000)	0.224 (0.000)	0.802 (0.000)	1.000									
GDP Diff	-0.107 (0.000)	0.334 (0.000)	0.549 (0.000)	-0.235 (0.000)	-0.238 (0.000)	0.136 (0.000)	-0.308 (0.000)	0.140 (0.000)	-0.063 (0.000)	1.000								
Acq GDP per Cap	-0.043 (0.009)	0.013 (0.416)	0.123 (0.000)	-0.056 (0.001)	0.420 (0.000)	-0.278 (0.000)	-0.114 (0.000)	-0.335 (0.000)	-0.444 (0.000)	0.289 (0.000)	1.000							
Targ GDP per Cap	0.028 (0.086)	-0.208 (0.000)	-0.246 (0.000)	0.085 (0.000)	0.565 (0.000)	-0.360 (0.000)	0.091 (0.000)	-0.416 (0.000)	-0.381 (0.000)	-0.391 (0.000)	0.768 (0.000)	1.000						
Targ Mkt Liq Numb	0.115 (0.000)	-0.077 (0.000)	-0.036 (0.029)	0.140 (0.000)	0.247 (0.000)	-0.492 (0.000)	0.056 (0.001)	0.002 (0.912)	0.041 (0.011)	-0.161 (0.000)	0.193 (0.000)	0.288 (0.000)	1.000					
Horizontal	-0.014 (0.398)	-0.014 (0.390)	-0.025 (0.127)	0.010 (0.533)	-0.034 (0.037)	0.120 (0.000)	0.029 (0.076)	0.021 (0.189)	0.043 (0.008)	-0.036 (0.026)	-0.055 (0.001)	-0.031 (0.056)	-0.070 (0.000)	1.000				
Acq Tobins Q	0.000 (0.999)	-0.005 (0.778)	-0.003 (0.866)	-0.001 (0.952)	0.027 (0.092)	-0.024 (0.141)	0.001 (0.962)	-0.026 (0.115)	-0.032 (0.054)	-0.004 (0.810)	0.031 (0.054)	0.029 (0.074)	0.014 (0.378)	-0.010 (0.529)	1.000			
Acq FFO	-0.015 (0.347)	0.113 (0.000)	0.063 (0.000)	0.014 (0.415)	-0.038 (0.018)	-0.038 (0.022)	-0.038 (0.018)	-0.009 (0.574)	-0.035 (0.032)	0.110 (0.000)	0.057 (0.000)	-0.019 (0.229)	-0.018 (0.258)	0.021 (0.190)	-0.010 (0.520)	1.000		
Acq CF to Sales	0.005 (0.751)	0.013 (0.435)	-0.012 (0.452)	0.037 (0.026)	0.028 (0.089)	0.011 (0.496)	-0.007 (0.687)	0.037 (0.026)	0.035 (0.033)	-0.013 (0.423)	0.004 (0.820)	0.012 (0.448)	-0.002 (0.919)	0.012 (0.474)	-0.178 (0.000)	0.055 (0.001)	1.000	
Targ Assets	0.035 (0.032)	0.020 (0.214)	0.003 (0.832)	0.017 (0.301)	-0.005 (0.781)	-0.027 (0.108)	-0.004 (0.808)	-0.009 (0.568)	-0.013 (0.422)	-0.006 (0.716)	0.025 (0.119)	0.026 (0.106)	-0.008 (0.619)	-0.098 (0.000)	-0.013 (0.442)	0.244 (0.000)	0.023 (0.150)	1.000

## Appendix 2

### Correlation matrix Matched Pairs sample

	Revised ADRI Diff	Acq Rev ADRI	Targ Rev ADRI	Acct Diff	Corr Cntrl Diff	Cred Rights Diff	Acq Cred Rights	Targ Cred Rights	Log GDP Diff	Hori- zontal	Currency Diff	Targ Currency	Acq Currency	Cash Only	Hostile	Targ Mkt Liq Number	Log Deal Size
Rev ADRI Diff	1.000																
Acq Rev ADRI	0.785 (0.000)	1.000															
Targ Rev ADRI	-0.620 (0.000)	0.000 (0.999)	1.000														
Accounting Diff	0.150 (0.004)	0.092 (0.076)	-0.127 (0.013)	1.000													
Corruption Control Diff	0.077 (0.130)	0.015 (0.769)	-0.104 (0.040)	0.319 (0.000)	1.000												
Creditor Rights Diff	0.684 (0.000)	0.479 (0.000)	-0.490 (0.000)	0.069 (0.189)	-0.110 (0.034)	1.000											
Acq Creditor Rights	0.466 (0.000)	0.577 (0.000)	-0.037 (0.470)	0.099 (0.059)	-0.116 (0.025)	0.744 (0.000)	1.000										
Targ Creditor Rights	-0.453 (0.000)	-0.073 (0.157)	0.649 (0.000)	0.033 (0.516)	0.070 (0.171)	-0.701 (0.000)	-0.045 (0.390)	1.000									
Log GDP Diff	-0.020 (0.691)	0.055 (0.281)	0.088 (0.080)	0.020 (0.692)	-0.056 (0.270)	0.039 (0.459)	0.053 (0.308)	-0.011 (0.830)	1.000								
Horizontal	0.047 (0.355)	0.031 (0.544)	-0.050 (0.320)	0.030 (0.552)	0.042 (0.413)	0.161 (0.002)	0.173 (0.001)	-0.070 (0.167)	0.080 (0.113)	1.000							
Currency Diff	0.069 (0.175)	0.049 (0.339)	-0.049 (0.328)	-0.270 (0.000)	-0.183 (0.000)	0.077 (0.140)	0.008 (0.881)	-0.120 (0.018)	0.150 (0.003)	0.138 (0.006)	1.000						
Targ Currency	-0.059 (0.246)	-0.072 (0.158)	0.001 (0.977)	0.224 (0.000)	0.232 (0.000)	-0.075 (0.148)	0.051 (0.327)	0.165 (0.001)	-0.033 (0.511)	-0.094 (0.062)	-0.570 (0.000)	1.000					
Acq Currency	0.024 (0.633)	-0.012 (0.820)	-0.053 (0.291)	-0.109 (0.033)	0.010 (0.841)	0.019 (0.720)	0.057 (0.273)	0.012 (0.817)	0.147 (0.004)	0.073 (0.148)	0.624 (0.000)	0.286 (0.000)	1.000				
Cash Only	-0.045 (0.372)	-0.026 (0.604)	0.044 (0.383)	-0.028 (0.586)	-0.016 (0.758)	0.047 (0.371)	0.042 (0.420)	-0.017 (0.733)	-0.008 (0.874)	0.105 (0.036)	-0.053 (0.298)	-0.016 (0.745)	-0.075 (0.137)	1.000			
Hostile	-0.084 (0.098)	-0.040 (0.434)	0.085 (0.088)	-0.042 (0.417)	-0.004 (0.936)	-0.093 (0.073)	-0.039 (0.454)	0.095 (0.059)	-0.011 (0.824)	-0.036 (0.476)	-0.010 (0.844)	0.012 (0.812)	0.000 (0.997)	-0.047 (0.349)	1.000		
Targ Mkt Liq Number	0.389 (0.000)	0.069 (0.182)	-0.542 (0.000)	-0.083 (0.107)	0.116 (0.023)	0.357 (0.000)	0.080 (0.123)	-0.459 (0.000)	-0.122 (0.016)	0.135 (0.007)	0.174 (0.001)	0.031 (0.536)	0.238 (0.000)	0.079 (0.121)	-0.007 (0.884)	1.000	
Log Deal Size	0.037 (0.487)	-0.101 (0.058)	-0.193 (0.000)	-0.008 (0.876)	0.048 (0.366)	-0.033 (0.548)	-0.154 (0.004)	-0.119 (0.024)	-0.125 (0.018)	-0.099 (0.058)	0.037 (0.484)	-0.096 (0.067)	-0.051 (0.331)	0.045 (0.394)	0.046 (0.381)	0.192 (0.000)	1.000

### Appendix 3

#### Explaining merger premiums with a negative transfer of Shareholder Protection – Multivariate Analysis

The table shows the output of a multivariate regression of the TOB+Datastream sample. The dependent variable is the BHCAR of the event study with an event window of  $t = -1$  to  $t = 1$ . The abnormal returns are calculated from a of a market model estimated using daily company stock and MSCI returns over the period  $t = -260$  to  $t = -100$  trading days compared to the day of the merger announcement. Daily stock returns is gathered from Datastream. Returns are computed in dollars. In this regression, I only examine cross-border observations with a negative transfer of shareholder protection. I corrected for possible fixed year or fixed industry effects in all regressions, that data is available in the appendix. The GDP per capita is in constant March 2017 US Dollars and is obtained from the World Bank Development Indicators. I compute for all countries the total deal value by year, and divide this by the total GDP of the corresponding nation. Furthermore, I winsorize all variables at a 1% level. Robust t-statistics are in the parentheses.

	Complete						Creditor protection break-down				Investor Protection break-down	
Panel A: Investor protection	1	2	3	4	5	6	7	8	9	10	11	12
Revised ADRI difference	-0.027* (-1.90)	-0.014 (-0.98)	-0.016 (-1.03)	-0.014 (-0.99)	-0.015 (-0.75)	-0.015 (-0.75)	-0.016 (-0.80)	-0.016 (-0.79)	-0.025 (-1.33)	-0.009 (-0.59)		
Acquirer Revised ADRI											-0.011 (-0.50)	-0.011 (-0.51)
Target Revised ADRI											0.027 (1.05)	0.026 (1.01)
Accounting Difference			-0.001 (-0.68)									
Corruption Control Difference				0.009 (0.14)		0.027 (0.38)		0.022 (0.30)	-0.006 (-0.09)	0.030 (0.43)		0.019 (0.27)
Creditor Rights Difference					-0.014 (-1.47)	-0.014 (-1.46)					-0.011 (-1.15)	-0.012 (-1.15)
Acquirer Creditor Rights							-0.007 (-0.51)	-0.008 (-0.54)	-0.003 (-0.22)			
Target Creditor Rights							0.017 (1.58)	0.017 (1.55)		0.013 (1.25)		
<i>Panel B: Country specific</i>												
Acquirer Currency	-0.277** (-2.33)	-0.576*** (-3.64)	-0.502*** (-2.92)	-0.578*** (-3.64)	-0.621*** (-3.77)	-0.624*** (-3.78)	-0.623*** (-3.78)	-0.626*** (-3.78)	-0.606*** (-3.68)	-0.602*** (-3.75)	-0.617*** (-3.74)	-0.620*** (-3.74)
Target Currency	0.258*** (3.06)	0.105 (1.13)	0.054 (0.59)	0.105 (1.13)	0.043 (0.44)	0.043 (0.44)	0.035 (0.36)	0.036 (0.37)	0.070 (0.73)	0.082 (0.86)	0.045 (0.46)	0.045 (0.46)
Log GDP difference	-0.001 (-0.44)	-0.003 (-1.59)	-0.002 (-1.01)	-0.003 (-1.52)	-0.003 (-1.58)	-0.003 (-1.62)	-0.003 (-1.49)	-0.003 (-1.50)	-0.003 (-1.60)	-0.003 (-1.44)	-0.003 (-1.63)	-0.003 (-1.63)
Acquirer Market Liquidity Value	-0.402 (-0.68)	-0.064 (-0.09)	0.027 (0.04)	-0.050 (-0.07)	-0.246 (-0.33)	-0.207 (-0.28)	-0.169 (-0.23)	-0.143 (-0.19)	-0.047 (-0.06)	-0.052 (-0.07)	-0.201 (-0.27)	-0.176 (-0.24)
Target Market Liquidity Value	0.621 (1.07)	0.409 (0.64)	0.371 (0.57)	0.415 (0.64)	0.454 (0.70)	0.461 (0.71)	0.480 (0.74)	0.484 (0.75)	0.375 (0.58)	0.549 (0.84)	0.446 (0.69)	0.452 (0.70)

**Appendix 3 - Continued**

<i>Panel C: Deal specific</i>												
Cash Only	0.029 (1.16)	0.041 (1.51)	0.035 (1.29)	0.040 (1.49)	0.042 (1.51)	0.042 (1.48)	0.044 (1.55)	0.043 (1.52)	0.041 (1.47)	0.043 (1.55)	0.041 (1.47)	0.041 (1.45)
Hostile	-0.066 (-0.94)	-0.073 (-0.97)	-0.092 (-1.24)	-0.072 (-0.96)	-0.126 (-1.62)	-0.125 (-1.61)	-0.128 (-1.65)	-0.127 (-1.64)	-0.123 (-1.58)	-0.079 (-1.05)	-0.130* (-1.68)	-0.129* (-1.66)
Log Deal Size	-0.004 (-0.62)	0.003 (0.36)	0.001 (0.16)	0.003 (0.36)	-0.001 (-0.15)	-0.001 (-0.12)	-0.001 (-0.13)	-0.001 (-0.11)	-0.002 (-0.24)	0.003 (0.37)	-0.001 (-0.11)	-0.001 (-0.10)
Percentage Shares Acquired	0.001*** (2.74)	0.001 (1.57)	0.001 (1.37)	0.001 (1.57)	0.001 (1.39)	0.001 (1.44)	0.001 (1.46)	0.001 (1.49)	0.001 (1.41)	0.001* (1.66)	0.001 (1.48)	0.001 (1.50)
<i>Panel D: Firm specific</i>												
Horizontal	0.013 (0.50)	-0.035 (-1.17)	-0.042 (-1.40)	-0.034 (-1.16)	-0.041 (-1.35)	-0.041 (-1.33)	-0.041 (-1.34)	-0.041 (-1.33)	-0.044 (-1.43)	-0.030 (-1.00)	-0.042 (-1.37)	-0.042 (-1.35)
Acquirer FFO	0.000 (0.01)	-0.000 (-0.57)	-0.000 (-0.23)	-0.000 (-0.58)	-0.000 (-0.22)	-0.000 (-0.23)	-0.000 (-0.20)	-0.000 (-0.20)	-0.000 (-0.22)	-0.000 (-0.70)	-0.000 (-0.22)	-0.000 (-0.22)
Acquirer CF to Sales	0.001 (0.20)	-0.001 (-0.54)	-0.001 (-0.50)	-0.001 (-0.53)	-0.001 (-0.31)	-0.001 (-0.30)	-0.001 (-0.30)	-0.001 (-0.30)	-0.001 (-0.38)	-0.001 (-0.43)	-0.001 (-0.30)	-0.001 (-0.29)
Target TobinsQ	0.006 (0.72)	0.004 (0.47)	0.003 (0.41)	0.004 (0.46)	0.005 (0.67)	0.005 (0.61)	0.005 (0.66)	0.005 (0.62)	0.006 (0.79)	0.002 (0.26)	0.006 (0.74)	0.005 (0.69)
Constant	0.047 (0.36)	0.524 (1.36)	0.515 (1.34)	0.525 (1.36)	0.673* (1.76)	0.673* (1.76)	0.652* (1.69)	0.653* (1.69)	0.627 (1.63)	0.536 (1.39)	0.593 (1.49)	0.598 (1.50)
N	349.000	349.000	332.000	349.000	321.000	321.000	321.000	321.000	327.000	342.000	321.000	321.000
r2	0.070	0.368	0.389	0.368	0.415	0.415	0.416	0.416	0.396	0.385	0.416	0.417
r2 adjusted	0.031	0.167	0.178	0.164	0.203	0.201	0.201	0.198	0.180	0.177	0.202	0.199
Fixed year effects	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed industry effects	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

\*\*\*, \*\*, \* indicate significance at 1% percent, 5%, and 10% levels, respectively

## Appendix 4

### Explaining merger premiums with a negative transfer of Accounting Standards– Multivariate Analysis

The table shows the output of a multivariate regression of the TOB+Datastream sample. The dependent variable is the BHCAR of the event study with an event window of  $t = -1$  to  $t = 1$ . The abnormal returns are calculated from a of a market model estimated using daily company stock and MSCI returns over the period  $t = -260$  to  $t = -100$  trading days compared to the day of the merger announcement. Daily stock returns is gathered from Datastream. Returns are computed in dollars. In this regression, I only examine cross-border observations with a negative transfer of accounting standards. I corrected for possible fixed year or fixed industry effects in all regressions, that data is available in the appendix. The GDP per capita is in constant March 2017 US Dollars and is obtained from the World Bank Development Indicators. I compute for all countries the total deal value by year, and divide this by the total GDP of the corresponding nation. Furthermore, I winsorize all variables at a 1% level. Robust t-statistics are in the parentheses.

	Negative Accounting Transfer														
	Sample					High MTB-ratio					Low MTB-ratio				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<i>Panel A: Investor protection</i>															
Acquirer Accounting Score	-0.001 (-0.29)														
Target Accounting Score	0.001 (0.33)														
Accounting Difference, Positive		0.001 (0.21)	-0.001 (-0.37)	-0.002 (-0.56)	-0.002 (-0.52)	-0.001 (-0.27)	-0.002 (-0.45)		-0.000 (-0.01)	0.000 (0.06)	0.000 (0.06)		-0.001 (-0.14)	-0.005 (-0.49)	-0.002 (-0.15)
Shareholder Protection Difference				0.006 (0.28)				-0.001 (-0.04)				-0.030 (-0.57)			
Corruption Control Difference					0.109 (1.04)		0.104 (0.98)		0.023 (0.15)		-0.004 (-0.02)		0.340 (1.09)		0.429 (1.27)
Creditor Rights Difference						-0.008 (-0.67)	-0.007 (-0.53)			-0.019 (-1.05)	-0.020 (-1.00)			0.012 (0.32)	0.018 (0.50)
<i>Panel B: Country specific</i>															
Acquirer Currency	-0.819** (-2.51)	-0.312 (-1.23)	-0.820** (-2.52)	-0.832** (-2.47)	-0.908*** (-2.70)	-0.823** (-2.46)	-0.915*** (-2.63)	-0.815* (-1.71)	-0.833* (-1.71)	-0.760 (-1.58)	-0.757 (-1.51)	-0.687 (-0.61)	-1.133 (-1.03)	-0.404 (-0.39)	-1.123 (-0.98)
Target Currency	0.521 (1.26)	0.105 (0.44)	0.522 (1.27)	0.499 (1.16)	0.450 (1.08)	0.543 (1.27)	0.467 (1.08)	0.282 (0.42)	0.246 (0.35)	0.335 (0.50)	0.341 (0.47)	-0.977 (-0.90)	-0.901 (-0.96)	-1.228 (-1.14)	-1.270 (-1.20)
Log GDP difference	0.001 (0.41)	0.001 (0.47)	0.001 (0.42)	0.001 (0.55)	0.000 (0.18)	0.001 (0.20)	0.000 (0.05)	0.000 (0.09)	-0.000 (-0.00)	-0.001 (-0.16)	-0.001 (-0.15)	-0.001 (-0.21)	-0.004 (-0.66)	0.000 (0.02)	-0.004 (-0.57)
Acquirer Market Liquidity Value	-0.853 (-0.95)	-0.096 (-0.16)	-0.856 (-0.95)	-0.862 (-0.91)	-0.842 (-0.94)	-0.693 (-0.73)	-0.697 (-0.73)	0.025 (0.02)	-0.021 (-0.01)	0.456 (0.31)	0.456 (0.30)	-0.839 (-0.40)	-1.122 (-0.60)	-1.472 (-0.67)	-1.927 (-0.88)
Target Market Liquidity Value	-0.599 (-0.65)	-0.557 (-0.76)	-0.582 (-0.65)	-0.561 (-0.62)	-0.494 (-0.55)	-0.590 (-0.65)	-0.500 (-0.55)	-0.562 (-0.40)	-0.509 (-0.37)	-0.593 (-0.43)	-0.595 (-0.43)	1.523 (0.74)	1.357 (0.61)	1.810 (0.73)	0.461 (0.17)
<i>Panel C: Deal specific</i>															
Cash Only	0.032 (0.83)	0.072** (2.19)	0.032 (0.83)	0.029 (0.73)	0.034 (0.88)	0.034 (0.83)	0.034 (0.85)	-0.031 (-0.46)	-0.023 (-0.35)	-0.024 (-0.36)	-0.025 (-0.36)	0.297** (2.71)	0.280** (2.70)	0.260* (2.14)	0.247* (2.07)
Hostile	-0.141 (-1.57)	-0.099 (-1.32)	-0.139 (-1.58)	-0.140 (-1.55)	-0.136 (-1.55)	-0.139 (-1.55)	-0.137 (-1.52)	-0.189 (-1.09)	-0.192 (-1.14)	-0.203 (-1.21)	-0.203 (-1.19)	-0.055 (-0.32)	-0.029 (-0.18)	-0.043 (-0.22)	-0.084 (-0.44)
Log Deal Size	0.009 (0.75)	0.010 (1.10)	0.009 (0.77)	0.008 (0.66)	0.009 (0.81)	0.007 (0.62)	0.008 (0.66)	-0.010 (-0.51)	-0.009 (-0.48)	-0.013 (-0.67)	-0.013 (-0.66)	0.051* (1.83)	0.054* (1.91)	0.051 (1.69)	0.060* (1.99)
Percentage Shares Acquired	0.001 (0.61)	0.001 (1.04)	0.001 (0.62)	0.001 (0.71)	0.000 (0.56)	0.000 (0.43)	0.000 (0.42)	0.001 (0.56)	0.001 (0.66)	0.001 (0.31)	0.001 (0.31)	-0.002 (-0.85)	-0.003 (-1.10)	-0.002 (-0.72)	-0.002 (-0.79)

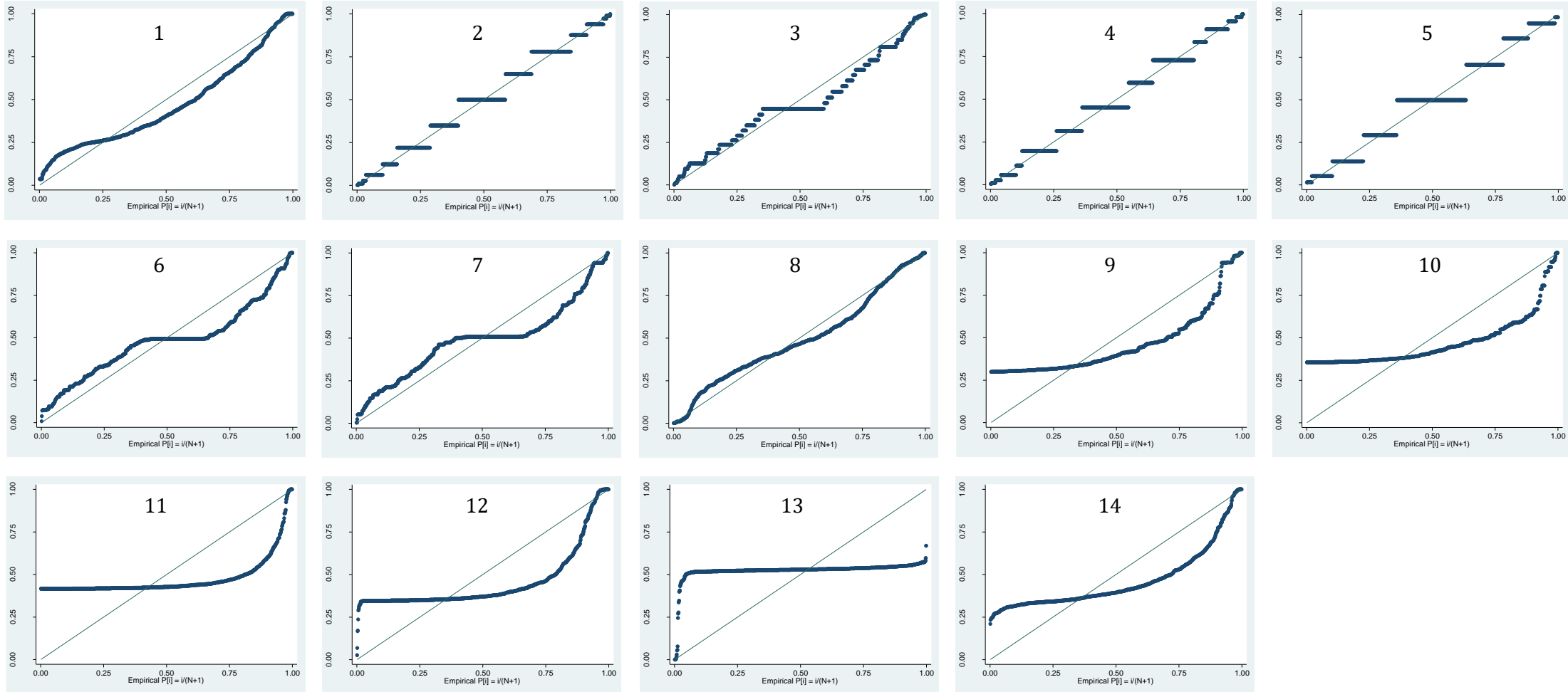
### Appendix 4 - Continued

<i>Panel D: Firm specific</i>	Positive Accounting Transfer														
	Sample							High MTB-ratio				Low MTB-ratio			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Horizontal	0.037 (0.92)	0.026 (0.89)	0.034 (0.84)	0.034 (0.85)	0.035 (0.85)	0.019 (0.45)	0.020 (0.47)	0.009 (0.13)	-0.017 (-0.22)	0.012 (0.14)	0.001 (0.01)	0.015 (0.24)	0.031 (0.50)	-0.060 (-1.02)	-0.049 (-0.88)
Acquirer FFO	0.000 (0.99)	0.000 (0.60)	0.000 (0.91)	0.000 (0.82)	0.000 (0.91)	0.000 (0.59)	0.000 (0.60)	-0.000 (-0.10)	-0.000 (-0.78)	-0.000 (-1.14)	-0.000 (-1.05)	0.000 (0.41)	0.000 (0.77)	-0.000* (-1.93)	-0.000 (-1.63)
Acquirer CF to Sales	-0.140*** (-4.28)	-0.137*** (-4.78)	-0.138*** (-4.22)	-0.138*** (-4.18)	-0.139*** (-4.23)	-0.125*** (-3.78)	-0.127*** (-3.81)	-0.188*** (-4.14)	-0.190*** (-3.97)	-0.194*** (-4.05)	-0.185*** (-3.87)	0.009 (0.25)	-0.027 (-0.25)	0.031 (0.34)	0.040 (0.46)
Target Tobin's Q	0.015 (1.63)	0.011 (1.50)	0.015 (1.60)	0.015 (1.60)	0.014 (1.56)	0.015* (1.68)	0.015 (1.62)	0.018 (1.60)	0.028** (2.23)	0.025* (2.01)	0.028** (2.25)	-0.084 (-0.49)	-0.267 (-1.58)	0.121 (0.79)	0.006 (0.04)
Constant	0.181 (0.55)	0.048 (0.84)	-0.091 (-0.43)	-0.101 (-0.48)	-0.087 (-0.41)	-0.101 (-0.48)	-0.095 (-0.45)	-0.010 (-0.04)	0.056 (0.20)	0.050 (0.18)	0.025 (0.09)	0.349 (1.16)	0.044 (0.16)	-0.280 (-1.13)	-0.240 (-1.02)
Number of observations	204	204	204	203	203	193	193	130	109	106	106	121	103	95	95
R-squared	0.499	0.216	0.495	0.497	0.496	0.527	0.528	0.601	0.677	0.671	0.684	0.622	0.757	0.858	0.877
R-squared adjusted	0.192	0.160	0.191	0.185	0.186	0.212	0.209	0.128	0.197	0.185	0.198	0.129	0.284	0.527	0.576
Fixed year effects	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed industry effects	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

\*\*\*, \*\*, \* indicate significance at 1% percent, 5%, and 10% levels, respectively

## Appendix 5 QQ plots testing for normality

The figure below provides the standardized normal probability plots testing for normality. The following figures represent variable: (1) = CAR (-1, +1), (2) = Shareholder protection difference, (3) = Accounting standard score difference, (4) = Control of corruption difference, (5) = Creditor protection difference, (6) = Target currency, (7) = Acquirer currency, (8) = GDP difference, (9) Target market liquidity in deal value, (10) = Acquirer market liquidity in deal value, (11) = Deal size, (12) = Acquirer FFO, (13) = Acquirer CF to Sales, (14) = Target Tobins Q





## Appendix 6

### Revised Antidirector Rights Index

This table shows how the revised ADRI index of Djankov et al. (2008) is computed using six variables of measurement.

Country	Vote mail	Shares not deposited	Cumulative voting	Oppressed minority	Preemptive rights	Capital to call meeting	Rev ADRI
Argentina	0	0	0	0	1	0.05	2
Australia	1	1	0	1	0	0.05	4
Austria	0	0	0	0.5	1	0.05	2.5
Belgium	1	0	0	1	1	0.2	3
Bolivia	0	0	0	1	1	0.2	2
Brazil	1	0	1	1	1	0.05	5
Bulgaria	1	1	0	0	0	0.1	3
Canada	1	1	0	1	0	0.05	4
Chile	0	1	1	0	1	0.1	4
China	0	0	0	0	0	0.1	1
Colombia	0	1	1	0	1	0.2	3
Croatia	0	0	0	0.5	1	0.05	2.5
Czech Rep.	0	1	0	1	1	0.03	4
Denmark	0	1	0	1	1	0.1	4
Ecuador	0	1	0	0	1	0.25	2
Egypt	0	1	0	1	0	0.1	3
El Salvador	0	0	0	0	1	0.05	2
Finland	0	1	0	0.5	1	0.1	3.5
France	1	0	0	0.5	1	0.05	3.5
Germany	1	0	0	0.5	1	0.05	3.5
Ghana	1	1	0	1	1	0.05	5
Greece	0	0	0	0	1	0.05	2
Hong Kong	1	1	0	1	1	0.05	5
Hungary	0	1	0	0	0	0.1	2
Iceland	0	1	1	0.5	1	0.1	4.5
India	1	1	0	1	1	0.1	5
Indonesia	0	1	0	1	1	0.1	4
Ireland Rep	1	1	0	1	1	0.1	5
Israel	1	1	0	1	0	0.05	4
Italy	0	0	0	0	1	0.1	2
Jamaica	1	1	0	1	0	0.1	4
Japan	1	1	1	0.5	0	0.03	4.5
Jordan	0	1	0	0	0	0.15	1
Kazakhstan	0	1	1	0	1	0.05	4
Kenya	0	1	0	0	0	0.1	2
Latvia	0	1	1	0	1	0.05	4
Lithuania	0	1	1	0	1	0.1	4
Luxembourg	0	0	1	0	1	0.2	2
Malaysia	1	1	0	1	1	0.1	5
Mexico	0	1	0	0	1	0.1	3
Morocco	0	0	0	0	1	0.1	2
Netherlands	0	0	0	0.5	1	0.1	2.5
New Zealand	0	1	0	1	1	0.05	4
Nigeria	1	1	0	1	0	0.1	4
Norway	0	1	0	0.5	1	0.05	3.5
Pakistan	0	1	1	0	1	0.1	4
Panama	0	0	0	0	1	0.05	2
Peru	0	1	1	0.5	1	0.05	3.5
Philippines	1	1	1	0	1	.	4
Poland	0	0	0	0	1	0.1	2
Portugal	0	0	0	0.5	1	0.05	2.5
Romania	0	1	1	1	1	0.1	5
Russian Fed	0	1	1	0	1	0.1	4
Singapore	1	1	0	1	1	0.1	5
Slovenia	0	1	0	0	1	0.05	3
South Africa	1	1	0	1	1	0.05	5
South Korea	1	0	1	0.5	1	0.03	4.5
Spain	1	0	1	1	1	0.05	5
Sri Lanka	1	1	0	1	0	0.1	4
Sweden	0	1	0	0.5	1	0.1	3.5
Switzerland	0	0	0	1	1	0.1	3
Taiwan	0	0	1	0	1	0.03	3
Thailand	0	1	1	1	1	0.2	4
Tunisia	1	1	0	0	1	0.15	3
Turkey	1	0	0	0	1	0.05	3
Uganda	0	1	0	1	0	0.1	3
Ukraine	0	1	0	0	1	0.1	3
United Kingdom	1	1	0	1	1	0.1	5
United States	1	1	0	1	0	.	3
Uruguay	0	0	0	0	1	0.2	1
Venezuela	0	1	0	0	0	0.2	1
Zimbabwe	1	1	0	1	0	0.05	4

## Appendix 7

### LLSV accounting standards index

The table shows the accounting score assigned to 42 countries by La Porta et al. (1998). The maximum score 83 is assigned to Sweden, indicating it has the best disclosure of accounting information. The lowest score 24 is assigned to Egypt stating that it has the poorest accounting standards.

Country	Accounting score	Country	Accounting score
Argentina	45	Mexico	60
Australia	75	Netherlands	64
Austria	54	New Zealand	70
Belgium	61	Nigeria	59
Brazil	54	Norway	74
Canada	74	Pakistan	
Chile	52	Peru	38
Colombia	50	Philippines	65
Denmark	62	Portugal	36
Ecuador		Singapore	78
Egypt	24	South Africa	70
Finland	77	South Korea	62
France	69	Spain	64
Germany	62	Sri Lanka	
Greece	55	Sweden	83
Hong Kong	69	Switzerland	68
India	57	Taiwan	65
Indonesia		Thailand	64
IrelandRep		Turkey	51
Israel	64	United Kingdom	78
Italy	62	Uruguay	31
Japan	65	United States	71
Jordan		Venezuela	40
Kenya		Zimbabwe	
Malaysia	76		

## Appendix 8

### LLSV creditor protection index

The table shows the creditor protection score assigned to 47 countries by La Porta et al. (1998). The maximum score 4 is assigned to e.g. Hong Kong and the United Kingdom, indicating it has the best protection. The lowest score 0 is assigned to Peru and the Philippines stating that it has the poorest creditor protection.

Country	Creditor protection	Country	Creditor protection
Argentina	1	Netherlands	2
Australia	1	New Zealand	3
Austria	3	Nigeria	4
Belgium	2	Norway	2
Brazil	1	Pakistan	4
Canada	1	Peru	0
Chile	2	Philippines	0
Colombia	0	Portugal	1
Denmark	3	Singapore	4
Ecuador	4	South Africa	3
Egypt	4	South Korea	3
Finland	1	Spain	2
France	0	Sri Lanka	3
Germany	3	Sweden	2
Greece	1	Switzerland	1
Hong Kong	4	Taiwan	2
India	4	Thailand	3
Indonesia	4	Turkey	2
IrelandRep	1	United Kingdom	4
Israel	4	Uruguay	2
Italy	2	United States	1
Japan	2	Venezuela	
Jordan		Zimbabwe	4
Kenya	4		
Malaysia	4		

## Appendix 9

### Control of corruption index from

The measure of corruption is defined by the Political Risk Services in the International Country Risk Guide (ICRG). They assess the corruption within the political system. For several reasons corruption can be a threat for foreign investments; (1) it distorts the economic and financial environment; (2) reduces the efficiency of government and business by enabling persons to occupy positions through sponsorship rather than competence; (3) creates instability into the political process. The corruption index is time-varying starting in 1996 until 2015, ranging from 0 to 1. The table below are the scores of 2015.

Country	Control of corruption	Country	Control of corruption	Country	Control of corruption
Albania	0.42	Guinea	0.25	Oman	0.50
Algeria	0.33	Guinea	0.17	Pakistan	0.33
Angola	0.17	Guyana	0.25	Panama	0.33
Argentina	0.33	Haiti	0.17	Papua Guinea	0.33
Armenia	0.33	Honduras	0.42	Paraguay	0.33
Australia	0.75	Hong Kong	0.67	Peru	0.33
Austria	0.75	Hungary	0.50	Philippines	0.42
Azerbaijan	0.25	Iceland	0.83	Poland	0.58
Bahamas	0.75	India	0.42	Portugal	0.67
Bahrain	0.42	Indonesia	0.50	Qatar	0.67
Bangladesh	0.50	Iran	0.25	Romania	0.42
Belarus	0.33	Iraq	0.17	Russian Fed	0.25
Belgium	0.75	Ireland Rep	0.75	Saudi Arabia	0.50
Bolivia	0.33	Israel	0.58	Senegal	0.33
Botswana	0.67	Italy	0.42	Serbia	0.33
Brazil	0.33	Jamaica	0.42	Sierra Leone	0.33
Brunei	0.42	Japan	0.75	Singapore	0.75
Bulgaria	0.42	Jordan	0.50	Slovak Rep	0.50
Burkina Faso	0.42	Kazakhstan	0.25	Slovenia	0.58
Cameroon	0.33	Kenya	0.25	Somalia	0.17
Canada	0.83	Korea Rep	0.17	South Africa	0.42
Chile	0.75	South Korea	0.50	Spain	0.58
China	0.33	Kuwait	0.50	Sri Lanka	0.42
Colombia	0.42	Latvia	0.50	Sudan	0.08
Congo Rep	0.25	Lebanon	0.33	Suriname	0.33
Congo Dem Rep	0.25	Liberia	0.42	Sweden	0.92
Costa Rica	0.50	Libya	0.17	Switzerland	0.83
				Syrian	
Côte d'Ivoire	0.33	Lithuania	0.58	Republic	0.17
Croatia	0.50	Luxembourg	0.83	Taiwan	0.50
Cuba	0.42	Madagascar	0.33	Tanzania	0.33
Cyprus	0.67	Malawi	0.33	Thailand	0.33
Czech Republic	0.50	Malaysia	0.42	Togo	0.33
				Trinidad &	
Denmark	0.92	Mali	0.33	Tob.	0.33
Dominican Rep	0.33	Malta	0.58	Tunisia	0.42
Ecuador	0.33	Mexico	0.25	Turkey	0.42
Egypt	0.33	Moldova	0.33	Utd Arab Em	0.67
El Salvador	0.42	Mongolia	0.33	Uganda	0.25
Estonia	0.67	Morocco	0.42	Ukraine	0.25
Ethiopia	0.33	Mozambique	0.33	UK	0.83
Finland	0.92	Myanmar	0.25	United States	0.75
France	0.75	Namibia	0.50	Uruguay	0.75
Gabon	0.33	Netherlands	0.83	Venezuela	0.17
Gambia	0.33	New Zealand	0.92	Vietnam	0.42
Germany	0.83	Nicaragua	0.25	Yemen	0.17
Ghana	0.50	Niger	0.25	Zambia	0.42
Greece	0.42	Nigeria	0.25	Zimbabwe	0.17
Guatemala	0.33	Norway	0.92		

## Appendix 10

### Movement of investor sentiment over time

This graph shows the level of investor sentiment moving from January 1990 to January 2015. The data is gathered from Baker and Wurgler (2006) and gets updated every year. The scores ranges from a minimum of -2.33 in November 1976 to a maximum of 3.08 in February 2001.

