Religion, Risk Aversion, and Cross Border M&As

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Abstract

In this paper, we study the relationship between religiosity and cross border M&As. We find firms in religious countries conduct fewer and smaller cross-border merger transactions and, when they do, they pay less. In addition, their method of payment favors stock, which, in effect, binds targets to the acquirers' post-merger risks. Our results suggest that a country's religiosity may closely proxy aversion to risk. We also show that countries' primary religions such as Catholicism, Protestantism, and Buddhism, do not have bearing on the cross-border merger transactions, method of payment, or premium.

Key Words: Religiosity, Cross border, Mergers & acquisitions, Risk aversion

1 Introduction

Compared to domestic mergers and acquisitions, cross-border mergers and acquisitions (CBMAs) involve additional complexity and substantially greater risks (Erel, Liao, and Weisbach, 2012). Due to this added complexity and heightened uncertainty, risk-averse firms are either likely to avoid cross-border mergers altogether, or, when they do engage in these activities, they tend to use a higher discount rate to adjust for the risk (Maung, Shedden, Wang and Wilson, 2019).

It has long been acknowledged that mergers are risky (Furfine and Rosen, 2011) and that executives' risk aversion (or risk-taking) may affect M&A activity (Datta, Iskandar-Datta, and Raman, 2001). However, measuring risk aversion is difficult and it was not until recently that empirical work has begun to catch up with the theory. Using psychometric tests, Graham, Harvey, and Puri (2014) measure senior executives' psychological traits--which include aversion to risk--and show that firms with risk-tolerant executives initiate more mergers. In cross-border M&As, studies that relate risk aversion to mergers are even less common. Despite this lack of direct evidence, many researchers nonetheless indirectly account for CBMA-involved risks by controlling for the national characteristics of acquirer and target nations. For instance, variables such as cultural and geographic distances are commonly accounted for in CBMA-related studies. Many studies further account for this by considering whether the acquirer and target nations have the same language, religion, legal origins, and so on. Arguably, similar national characteristics (these characteristics are mainly cultural, but need not be limited to only culture) could mitigate risks associated with "foreignness."[1,2] However, the evidence on how sharing similar cultural characteristics might improve the effectiveness (and reducing the risk) of CMBAs is weak: for instance, Erel et

[1] The Liability of Foreignness (LOF) theory suggests that the competitiveness of foreign corporations is weakened due to less familiarity with local information, laws, and language (Hymer, 1976).

[2] Kedia and Bilgili (2015) mention that these informal ties are developed when nations interact over a long period of time, which ultimately promote shared values and beliefs between countries.

al. (2012) find that some of the informal aspects such as trust and language do not significantly affect CBMAs.

We use the religion and religiosity of acquiring countries as a proxy of risk aversion. It has long been acknowledged that religion could affect financial markets by affecting the behavior of market participants. One such behavior is that of risk aversion (Miller and Hoffmann, 1995). Noussair, Trautmann, Kuilen, and Vellekoop (2013) also provide evidence that religiosity measures such as church membership and church attendance affect risk aversion. In intra-country settings, the use of religion and religiosity as a proxy for risk aversion has been promoted by Hilary and Hui (2009). The authors find that individuals who attend religious services are less likely to accept riskier payouts and that firms located in religious locations indeed make risk-averse financial decisions.

In a cross-border setting, we are not aware of any study that relates country-wide risk aversion to its firms' acquisition and premium decisions. The only study that tests the effect of risk on cross-border M&As is that by Frijns, Gilbert, Lehnert, and Tourani-Rad (2013), who study the effect of uncertainty avoidance on *abnormal returns* at announcement. However, uncertainty avoidance may not necessarily proxy risk aversion (Hofstede, 2015).[3] In addition, to the extent that management may have a better understanding of the risks involved in a merger, the premium offered (as opposed to market returns, which are noisy and strongly affected by outside investors possessing less information) more closely reflects the level of risk and risk aversion than announcement returns. Frijns et al. (2013) argue that higher abnormal returns are indicative of higher expected synergies but were not clear on how this translates into higher level of risk aversion.

Using a sample of over 1,300 cross-border M&A transactions, we analyze how a country's

[3] Uncertainty Avoidance in Ten Minutes. https://geerthofstede.com/training-consulting/online-lectures/.

religiosity affects its cross-border acquisitions and the premiums paid in these transactions. Our measure of country-level religiosity is extracted from the Gallup surveys of 114 countries in which the survey asks respondents in each country whether religion is important in their lives.[4] A country's religiosity is measured by the percentage (between 0% and 100%) of respondents in the country for which religion is important in daily life.

Our evidence is supportive of the risk-averse role religiosity plays in cross-border mergers. We find that firms from religious countries are less likely to conduct cross-border acquisitions, which applies to both the number and dollar value of acquisitions. Religious acquirers are also more likely to pay for acquisitions with stock. To the extent that receiving stock payments render targets more or less receptive to the future of the merged firm and share in its future risks (and rewards), this is also supportive of our risk aversion story. In addition, a country's religiosity also negatively affects premiums offered for these acquisitions. Our results are robust to the inclusion and exclusion of a number of target and acquirer country-level controls. In our regressions, we also control for uncertainty avoidance and find it to be insignificant in explaining merger premiums. Religiosity, on the other hand, is significant, whether or not we control for uncertainty avoidance.

We make several important contributions to the literature. We are the first to show that a national culture of risk aversion, as proxied by religiosity, may negatively affect the country's cross-border acquisition activities and the premiums paid. While we focus mainly on risk aversion, our results also align with and support the hubris hypothesis of Roll (1986), who suggests that the acquiring firm's management may overestimate their ability to create value and achieve synergies, and therefore tend to overpay for targets. To the extent that religion and religiosity may deter immoral behavior (Grullon, Kanatas, and Weston, 2010; Terpstra, Rozell, and Robinson, 1993)

[4] Gallup World Poll 2009: http://www.gallup.com/consulting/worldpoll/24046/About.aspx.

and reduce managerial hubris (Mathew, Hayward, and Hambrick, 1993), lower premiums paid by religious countries are also consistent with the argument that some cultural characteristics may serve as a deterrent for managerial hubris and overconfidence. Finally, we also contribute to the literature on the role of people's beliefs and behaviors as manifested in their language and culture (of which religion is a subset) on the larger area of corporate financial decision-making and cross-border M&As.

The rest of the paper is organized as follows: Section 2 provides a review of the existing literature and develops the hypothesis. Section 3 describes our data and methodology. Section 4 presents the empirical results and Section 5 concludes the paper.

2 Literature review and hypothesis development

2.1 Background on CBMAs

Some earlier work on cross-border M&As focuses on difficulties associated with conducting these mergers as well as methods to overcome these obstacles. Obtaining accurate and unbiased information on corporate activity is one of the biggest challenges in international business (Chang, Khanna, and Palepu, 2001). Despite the problems associated with asymmetric information and difficulty in obtaining information, cross-border mergers frequently take place and, in 2018, the value of cross-border M&As (CBMAs) stood at approximately $4.1 trillion.[5] Although acquiring firms may have tools at their disposal to bridge this information gap, such as enlisting the help of advisors, one mitigating mechanism that has gained attention is the presence of naturally-occurring informal ties such as culture, language, and religion. In general, a long-term relationship between nations through informal ties and cultural similarities provides a competitive advantage to firms

[5] Refer to the 2019 M&A Global Outlook: Unlocking value in a dynamic market, published by J.P. Morgan. Available at https://www.jpmorgan.com/jpmpdf/1320746694177.pdf.

for bridging the informational gap. Erel et al. (2012) also suggest the importance of geographic proximity in consummating cross-border M&As.

Apart from those extoling the role of relationships, ties, and proximities between countries as drivers of CBMAs, another stream of literature studies the effect of investor protection and economic fundamentals. In one of the earlier works in the cross-border M&As determinants, Rossi and Volpin (2004) observe that acquirers tend to be from countries with better investor protection, while targets are from countries with weaker investor protection. The authors also find that merger premiums are higher for targets in countries with better investor protection, although this effect is mainly driven by the U.S. targets. Erel et al. (2012) highlight the importance of economic fundamentals such as GDP, currency strength, and stock market returns in determining cross-border M&As.

The work related to investor protection, accounting standards, and geographic proximity generally belongs to the broader literature of complexities and risk inherent in cross-border M&As. It is now commonly acknowledged that long-term informal relationships between nations provide a competitive advantage to firms for obtaining more accurate and complete information about the administrative and legal systems of target countries (Vermeulen and Barkema, 2001), which ultimately reduces the risk faced by acquirers. While our paper is also based on the notion that cross-border acquisitions carry risks, our focus is on the role of country-level informal institutions on M&A decisions and not on the informal relationships between countries.

For CBMA decisions about whether to acquire an overseas target, the literature has generally focused on the flow of investments, including foreign direct investment, FDI, of which mergers are a subset. Among several options available to international businesses to acquire overseas

assets, mergers are often preferred. Unlike joint ventures, acquirers can better manage their environmental uncertainty by merging with a local firm (Davis and Cobb, 2010). Bilateral relationships such as geographical, colonial, immigration, linguistic, and institutional ties between home and host countries could reduce uncertainties (Rangan and Drummond, 2004; Chowdhury and Maung, 2018). Despite the generally supporting evidence, Erel et al. (2012) find that sharing the same religion has a significant and *negative* impact on CBMAs.

For premium decision, some of the earlier works include that of Rossi and Volpin (2004), who find that takeover premiums are larger in target countries with higher levels of investor protection. However, this effect is mainly attributable to the US and the UK. Similarly, Bris and Cabolis (2008) find that acquirers are more likely to offer a higher premium when acquirers are located in countries with better shareholder protection and accounting standards.[6] Starks and Wei (2013) find that the takeover premium for CBMAs is negatively related to the quality of the acquirer's country-level corporate governance regime. The authors suggest that foreign acquirers must compensate target firm shareholders for exposing them to inferior accounting standards and higher corporate governance risks. Xie, Reddy, and Liang (2017) also provide evidence that institutional differences play an important role in CBMA premiums. In a recent paper, Maung, Shedden, Wang, and Wilson (2018) find that countries' investment environments affect CBMA premiums.

2.2 Institutional Framework

The empirical work thus far has extensively studied the role of formal institutions (including those of country-level governance mechanisms) propagating CBMAs. However, little empirical work

[6] When acquirers are from countries with better accounting standards and shareholder protection, it can be expected that the targets will experience improvements in corporate governance after the deal. This improves target firm value, leading to higher premiums for the targets.

investigates the effect of other country-level institutional characteristics that are considered 'informal.' The term institution generally refers to a broad set of formal (such as rules, laws, and regulations) and informal constraints (such as norms and behavior) (North, 1990; Jepperson, 1991). Scott (1995, 2007) further divides institutional frameworks into cognitive, normative, and regulative structures and activities. Governance-related country characteristics such as rule of law, creditor and shareholder rights, accounting standards, etc., belong to the domain of formal constraints (or regulative structure). The regulative structures affect behavior by constructing the rules, and by monitoring and enforcing them. The normative structures guide behavior by defining appropriate behavior in social contexts (social norms). Our main interest is the cognitive structures; these structures guide behavior by limiting people's beliefs and activities. A country's religion and religiosity are a part of the cognitive institution. To our knowledge, how this aspect of institutional framework would affect CBMAs and their premiums has not been studied.

Religion provides insight into how beliefs, norms, values, and morals affect economic attitudes and activities (Iannaccone, 1998; Barro and McCleary 2003). The question of how religion and religiosity could affect economic growth, financial systems, and financial decisions is not new. How religion and religiosity affect economic activity has been widely explored for an extended period (staring with Weber, 1930). Weber (1930) suggests that religious practices and beliefs may affect economic development. However, studies relating religion to financial markets are more recent and are limited in number. La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997) argue that Protestant common-law countries have more efficient governance systems and better investor protection than predominantly Catholic countries. La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1999) use religion as a proxy for culture and show that predominantly Protestant countries have better governments in terms of public sector efficiency, public goods provision, and so on.

Stulz and Williamson (2003) show that Catholic countries protect the rights of creditors less favorably than Protestant countries. Kim and Daniel (2016), in another cross-country study, find that a higher proportion of people practicing Protestantism is related to better corporate governance.

We make a distinction between religion (we refer to this as *primary religion* in the paper) and religiosity, which measures how religious a country's citizenry is. The main reason for this distinction is that countries that practice the same religions may not have the same degree of religiosity. In fact, we find that religiosity measures for countries that share the same languages, religions, and legal origins are very widespread. For instance, the United Kingdom, Australia, New Zealand, and the United States share the same official language (English), legal origin (Common Law), and religion (Protestant). However, only 27% of people surveyed in the UK are very religious, while the number is 65% for the US. Hence, it is necessary to distinguish between religion and religiosity.

2.3 Religion, Religiosity, and Risk Aversion

Religiosity may proxy for risk aversion because it is driven by the fear of the unknown. For instance, Malinowski (1925) claims that religiosity is a way of dealing with the fear of death (also see Homans, 1941) and uncertainty following one's death. Stark and Bainbridge (1985, 1987) suggest that religious behavior can be understood through risk-reward tradeoff: Religious behavior entails costs such as forgoing certain pleasures in life and engaging in religious acts but also brings rewards which are mainly associated with reducing uncertainty after death (such as going to hell or losing one's place in heaven). Miller and Hoffman (1995) argue that religious acceptance is a risk-averse behavior: accepting religion and God is similar to securing one's fate and fortune in the afterlife, somewhat of an insurance policy to reduce risk.

While the fear of the unknown and aversion to risk drive religious behavior, religiosity further affects people's attitudes towards risk taking. These attitudes affect risk-taking behavior such as criminal activities and gambling (See Yates and Stone, 1992). Diaz (2000) show that gambling (a risk-taking behavior) of Las Vegas residents is negatively related to religiosity. Hilary and Hui (2009) find that religiosity is negatively associated with risk-averse behavior such as living in safe surroundings and trying new things in life.

Religion and religiosity also affect financial markets by affecting the behavior of market participants. Hilary and Hui (2009) show that firms located in religious locations make risk-averse financial decisions. Similar findings are provided by Noussair, Trautmann, Kuilen, and Vellekoop (2013), who find that church membership and church attendance affect risk aversion, and Adhikari and Agrawal (2016), who find that banks headquartered in more religious areas have lower stock return volatility and lower idiosyncratic risk. Kumar, Page, and Spalt (2011) also suggest that "religion-induced gambling preferences" drive institutional investors to hold larger lottery-type stock portfolios in certain U.S. regions.

We use country-level religiosity data for two reasons: First, individual religiosity data at the personal level is not available in a cross section of countries. Second, several prior studies have also used aggregate religiosity to study firm behavior (e.g., Hilary and Hui, 2009; Maung, Tang, and Xu, 2020). Social norms theory suggests that firms comply with the norms of the society in which they operate.[7] Thus, a firm headquartered in a religious area may act according to the values and norms in that area regardless of the religiosity of the firm (or the CEO) itself (Kohlberg, 1984)

To the extent that cross-border mergers are complex and subject to substantial risk, we expect that religious countries are less likely to conduct CBMAs. Hence, we develop the following

[7] Also see Boytsun, Deloof, and Matthyssens (2011) regarding how social norms may affect corporate governance.

hypothesis:

Hypothesis 1a: *Firms in countries with a higher (lower) level of religiosity conduct fewer (more) numbers of CBMAs compared to domestic mergers and acquisitions.*

Hypothesis 1b: *Acquirers in countries with a higher (lower) level of religiosity have smaller (larger) CBMA total deal values.*

Aversion to risk could also affect the method of payment in acquisitions. It is well-known in the literature that abnormal announcement returns for targets are higher for cash deals as opposed to stock deals (Huang and Walkling, 1987). The value of cash has no uncertainty, whereas that of stock carries risk. From the perspective of an acquirer, the reverse reasoning applies. Paying by stock aligns both target and acquirer's interests and targets will have "skin in the game." Thus, more religious acquirers may prefer the method of payment in which the target shareholders also share in the risk of the post-merger firm. Hence, we have the following hypothesis:

Hypothesis 2: *Acquirers in countries with a higher (lower) level of religiosity are less (more) likely conduct cash (stock) acquisitions.*

Perceived risk reduction has often been cited as a reason why acquirers are willing to pay more for firms in certain countries with desired governance mechanisms. Some risk factors include corruption (Glambosky, Gleason, and Murdock, 2015; Weitzel and Berns, 2006), accounting standards (Rossi and Volpin, 2004), ownership (Sonenshine and Reynolds, 2014), political affinity (Bertrand, Betschinger, and Settles, 2016), and institutional differences (Xie et al., 2017). Merger premiums reflect the value of synergies that could potentially be achieved by merging the target and acquirer firms, and a higher risk (either real or perceived) reduces the present value of synergies, as firms use a higher discount rate. We propose that this is also the case for acquiring firms in countries that display an aversion to risk. Risk-averse acquirers would apply a higher discount

rate to compensate for uncertainties associated with CBMAs. Hence, we propose the following:

Hypothesis 3: *Acquirers in countries with a higher (lower) level of religiosity offer lower (higher) acquisition premiums for CBMAs.*

3. Data and Methodology

We obtain domestic and cross-border M&A data completed between January 1, 1990, and December 31, 2017, inclusive from SDC Platinum. The sample contains targets from 31 countries and acquirers from 75 countries with a transaction size greater than US$25 million.[8] We exclude spin-offs, recapitalizations, privatizations, share repurchases, and observations in which target or acquirer are utilities or financials. We only include deals in which the acquirer purchases more than 50% of the target's shares.

For the cross-border deal level analysis, we restrict our sample to firms with premium data. Private target firms are automatically excluded as the premium data are not available for these firms. We do not place similar restrictions on the acquirer, so acquirers can be either public or private firms. The bid price should be greater than the value of the firm as a going concern, so the premium should be positive. Negative premiums should only occur in rare circumstances such as when the market anticipates and overvalues the potential synergies, or if the market price declines within the four-week window. Since negative premiums are not economically meaningful, we drop observations with non-positive premiums. Lastly, we drop deals with competing bidders so that the premiums are more comparable, as multiple bidders tend to drive up the bid price (Flanagan and O'Shaughnessy, 2003).

We use religiosity data provided by the 2009 Gallup World Poll, which occurs at about the

[8] In 2009, all our sample countries have 1,000 survey respondents except India (3,010 respondents) and Ireland (500 respondents).

mid-point of our sample years. The poll asked respondents "Is religion an important part of your daily life?" and our measure of religiosity for a country is the percentage of population that answered "yes" to this question. Halman and Draulans (2006) discuss the validity of the question as a measure of religiosity. This measure has also been widely used in studies of the effect of religion on economics and financial behavior. Iannaccone (1998) uses the Gallup poll to describe religion-induced economic behavior. Barro and McClear (2003) also use this data to discover the international determinants of religiosity. By using the poll, Berggren and Bjørnskov (2012) find that religiosity is negatively related to property rights.

Table 1 reports the number and dollar values of CBMAs by country. We remove countries that conduct fewer than three cross-border M&A transactions during our 27-year sample period. The United States and the United Kingdom (both Protestant countries) dominate the sample in both the number of deals and the dollar amounts.[9] However, these countries have a wide gap in their religiosity levels: The U.S. has 65% of people being classified as religious while that number in the UK is only 27%. The sample exhibits widespread variation in religiosity levels ranging from 17% (Sweden) to 95% (Philippines). We also include both religiosity and the primary religion of each country (Buddhist, Catholic, Protestant, etc.). Although religions such as Muslim, Hinduism, and Judaism are in the dataset, we code them as Other, since there are very few observations in our sample. As in Stulz and Williamson (2003), the data for religion are sourced from the 2000 CIA World Factbook. We see that most acquisitions take place in Catholic and Protestant Countries.

[Insert Table 1 about here]

3.1 Variables

[9] Our results are robust to the exclusion of these countries.

3.1.1 Dependent Variables

We measure the percentage cross border M&As by dividing the number of cross-border deals by the total number of M&A deals in a given year for the acquiring country.[10] In our sample, about 75% of deals are cross-border. For an acquiring country, the total cross border deal value is calculated as the total transaction value of all these cross-border deals in a given year. To test the relation between religiosity and the form of payment, we measure *Percentage Cash* using the percentage of consideration paid in cash, a variable directly obtained from the SDC. In our sample, we see that over 90% of deals are completed in cash. Our last dependent variable is the cross-border M&A premium. *Premium* is the difference between the bid and one-week prior closing prices scaled the prior one-week price. All our premium variables are multiplied by 100 and logged. In our sample, the takeover premium ranges between 1.88% to 275%, with an average of 38.3%.

3.1.2 Control Variables

In Table 2 Panel A and B, we report the summary statistics for control variables. These control variables are widely used in the literature (Rossi and Volpin, 2004; Erel et al., 2012) We analyze percentage and dollar value of cross border deals at the country-year level and premium and payment type at the deal level. Thus, we report the summary statistics separately at deal level (Panel A) and acquirer country-year level (Panel B).

Following previous studies, we control for the usual country, deal, and firm characteristics that may influence the acquisition decisions and the M&A premium. In the deal level analysis, we control for the target country's regulatory and investment frameworks by including legal origin (equals one if the origin of the country's law is British common law, and zero otherwise), rule of

[10] The calculation of the percentage of cross border M&A is based on the entire sample with both domestic and cross border deals. We do not impose the restriction that data for premium needs to be available because such restriction significantly reduces sample size and the percentage calculation is less accurate.

law (*RULE_LAW*) and shareholder protection measured by the anti-director rights (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1997). The legal origin variables are obtained from La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1999) and Djankov, McLiesh, and Shleifer (2007). The shareholder protection variable--as defined in Rossi and Volpin (2004)--is the ADRI multiplied by rule of law and divided by ten. To account for economic growth, we control for both the acquirer country and target country's GDP (in natural logs) and GDP growth. We also control for the degree of uncertain avoidance (*UAI*) for acquirer countries (Hofstede, 2001).[11]

We also control whether the target country has a mandatory bid rule (*Mandatory*), which requires potential acquirers to issue a tender offer to all shareholders when their holdings exceed a set threshold. Deal characteristics include transaction value (*DEAL VALUE*), target size (*SIZE*), whether the deal is hostile (*Hostile*). To separate the effect of religiosity from that of cultural and similar effects, we control for the geological distances between the acquirers and the targets (*GEODIST*). *GEODIST* is the natural log of the geographical distance between the acquirer and the target countries' most populous cities, obtained from CEPII Geographical Distance database. We also include dummy variables that equal to one if the acquirer and target firms are from the same industry (*Same Industry*), speak the same language (*Same Language*), share the same religion (*Same Religion*) and have the same legal system (*Same Legal*). More than half of cross-border mergers take place between countries that either share the same legal origins or languages.

In Panel B, we include two additional control variables for analyses conducted at the acquirer nation level. We include the number of total listed firms (log) to control for the total market size and trade as a percentage of GDP to capture market openness. Given that these analyses are

[11] We do not include dimensions such as Masculinity, Indulgence, and Long-Term Orientation as we are not aware of any theoretical connection between religiosity and these three dimensions. Power distance may be tied to a specific primary religion (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1999), which we control for. In untabulated results, we find that including individualism does not affect our results.

just for acquirer countries, only the acquirer country level's control variables are included. The definitions and calculations of the above variables are presented in the Appendix. We winsorize all continuous variables at the top and bottom 1%. A few observations are noteworthy. Most of the cross-border transactions are conducted in cash, suggesting that targets may be less willing to accept foreign acquirers' stock as payment. Neither target nor acquirer countries exhibit abnormally high (or low) religiosity levels: both samples have approximately 45% religiosity level for acquirer countries. Only 6% of cross-border transactions are hostile. It is also worth noting that more than half of transactions take place between countries with the same language, 61% between countries with the same legal origins, and 38% of transactions between those with the same religion. Hence, at a glance, familiarity induced by same legal and cultural environments seems to play an important role when firms decide to acquire overseas.

In Table 2 Panel C and Panel D, we present the deal level and acquirer country-level correlation matrixes. In particular, the acquirer countries' uncertainty avoidance index (UAI) and religiosity only has a correlation of -0.1. This preliminary analysis suggests that our proxy of risk aversion and uncertainty avoidance may have distinct effects. A few variables exhibit unusually high correlations. For instance, the correlation between GDP and mandatory dividend law is -0.87. Similarly, a country's GDP (GDP (log)) and its cross-border acquisitions (Dollar Value Cross Border (log)) also have a high correlation: firms in developed countries make more cross-border acquisitions.

[Insert Table 2 about here]

3.2 Model

Our empirical models are defined as follows. First, to study the influence of religiosity on the

acquirer country's cross-border M&A decisions, we use the acquirer country's religiosity to predict the percentage and dollar value of cross-border deals originating from the acquirer countries. Specifically, our data is constructed as country-year panels and the empirical model is defined as follows:

$$Dep_{i,t} = \beta_0 + \beta_1 Religiosity_i + \beta_2 X_{i,t} + Year_t + \varepsilon_{i,t} \quad (1)$$

where the $Dep_{i,t}$ is the dependent variable: the percentage of cross border deals or dollar value of cross border deals for acquirer country *i* at year *t*. $Religiosity_i$ is our variable of interest and it captures the religiosity of the acquiring country. The coefficient of *Religiosity* captures how the changes in a country's religiosity affects the changes in percentage or dollar value of cross-border deals. $X_{i,t}$ is a set of control variables as discussed before. Year denotes year-specific fixed effects to account for time-specific conditions that may influence the religiosity-cross border deal relationship. Standard errors are clustered at the country level level to account for within-country covariances (Peterson 2009).

To study the influence of acquirer country's religiosity on M&A deal premiums and payment methods, we run deal-level regressions with the following form:

$$Dep_{j,t} = \beta_0 + \beta_1 Acq\ Religiosity_j + \beta_2 X_{j,t} + Year_t + Industry_j + \varepsilon_{j,t} \quad (2)$$

where the $Dep_{j,t}$ is the deal level dependent variable that captures the *Premium* and *Percentage Cash* for deal *j*. $Acq\ Religiosity_i$ is our variable of interest that captures the religiosity of the acquirer's country. $X_{i,t}$ is a set of control variables that control for the deal level, target and acquirer country-level differences, as discussed before. In addition, we control for the target country's religiosity to make sure that premium and payment differences are not driven by the target country's religiosity. Year and Industry denote year-, acquirer industry, and target industry-specific fixed

effects to account for time and industry-specific conditions. Again, standard errors are clustered at the acquirer country level to account for within-country covariances (Peterson 2009).

4. Empirical Results & Discussion

4.1 Results

Table 3 reports the estimates of the country panel regressions corresponding to the model described in Equation 1. In Columns 1-2, the dependent variable is the fraction of a country's cross-border investment. In Column 1, we do not control for the acquirer's primary religions. The coefficient of *RELIGIOSITY* is negative and significant at 1% in all regressions. We control for the primary religions in Columns 2-5 and the coefficient and significance of religiosity is little changed. This validates the argument that the effect of a country's religiosity extends beyond that of its primary religion and that our results are not driven by any particular religion. Uncertainty avoidance, *UAI*, is insignificant throughout. In fact, *UAI*'s coefficient is close to zero in almost all our regressions. This makes a compelling case that the use of uncertainty avoidance as a proxy of risk aversion might have been misguided. Note that we do not control for the target religiosity levels since this is a country-level regression and acquisitions are the aggregates of all targets from all countries. Hence, it is only possible for a particular acquirer nation's religiosity.

In Columns 2-4, the coefficients of primary religions (Catholic, Protestant, and Buddhist) are insignificant. In the full model (Column 5), we see that the coefficients of Catholic and Protestant are positive and marginally significant at the 10% level. Compared to countries with other primary religions, Catholic and Protestant countries conduct more cross-border M&A transactions. Since the base here (i.e., "Other" religions) is too small, it is not much meaningful to interpret this. In addition, it is likely that the results might have been driven by some minor collinearity issues in the full model. As expected, countries with better economic growth conduct more

cross-border acquisitions: the coefficient of *GDPGROWTH* is positive and significant at the 1% level in the full regression. We find some weak evidence of the positive impact of financial market development (as indicated by the number of total listed firms). Countries with common law origins also conduct more cross-border deals. The coefficients of other control variables are mostly insignificant.

[Insert Table 3 about here]

We repeat the regressions with the deal size as the dependent variable. Table 4 reports the results. Our results for the acquirer religiosity are negative and significant at the 1% level in all regressions. As before, uncertainty avoidance is insignificant. Unlike Table 3, the coefficients of Buddhist is significant, while that of Catholic and Protestant are insignificant. Common Law origin is also positive and significant at the 10% level. *LOGGDP* is also significant at the 5% level for 3 out of the 5 regressions: bigger-sized economies conduct more cross-border acquisitions. Countries that are open to trade also conduct more cross-border acquisitions.

[Insert Table 4 about here]

As noted in the previous section, paying cash might be undesirable from risk perspective since, unlike stock payments, targets do not share in the risk of the merged firm. Table 5 reports the results for the regressions with method of payment (cash) as the dependent. The dependent variable is the percentage of cash acquisitions, which takes on a value of 0 to 100. We control for the target's religiosity in all regressions. The coefficient of acquirer religiosity is negative and significant at 1% level for most regressions. In Columns 2-6, we include the primary religions. For robustness, we exclude the deals with the U.S. targets, which is around 1/3 of the entire sample (Column 6). Our results remain significant. Hence, our results are not driven by some specific sample selection. We do not find evidence that target religiosity has any effect on the method of

payment. This is also reasonable given that payment method decisions are mainly in the domain of acquirers.

In the full regression model (Column 5), we see that bigger acquisitions involve less cash. This is reasonable given that it becomes harder to raise cash financing as acquisitions become larger. The same industry dummy is negative and significant at the 1% level. Hostile acquisitions are associated with more cash (significant at the 5% level). In Columns 1-6, the coefficient of uncertainty avoidance is significant but takes on the wrong sign (positive). We consider this as a rather conclusive evidence that religiosity is distinct from uncertainty avoidance and that religiosity does a better job of capturing the effect of risk aversion.

[Insert Table 5 about here]

Table 6 reports our results for the merger premium. The effect of religiosity is consistently negative and significant in all regressions. Again, uncertainty avoidance is insignificant in all regressions. Consistent with prior research, the coefficient of target size is negative and significant. Alexandridis, Fuller, and Terhaar (2013) argue that the post-merger integration process is more complex for larger targets and, due to their higher costs, there is less competition among bidders for larger targets. Shareholder protection variable is insignificant. This finding is consistent with that of Rossi and Volpin (2004). Hostile takeovers also carry higher premiums, which is consistent with Rossi and Volpin (2004). Also consistent with the findings of Sonenshine and Reynolds (2014), acquiring targets in a related industry do not have higher premiums. All other control variables are insignificant. We exclude the US targets in Column 6 and results remain unchanged. The religiosity coefficient of the targets is negative and insignificant throughout. Hence, religiosity of the acquirer nations seems to affect merger premiums.

[Insert Table 6 about here]

4.2 Robustness

We have performed several robustness tests to ensure correct identification. First, we examine whether our results are driven by measurement error in religiosity or by systematic differences across religions. Specifically, since our religiosity variable is based on the Gallup survey, it could potentially be biased for countries with few respondents or for demographically diverse countries. Further, it is plausible that countries located in a specific region or with a specific primary religion may be more religious than others (for example, Muslim countries), and hence what we see in tables may merely be driven by a specific primary religion.

We address the concern using subsample analysis. We report these results in Table 7. The dependent variables are percentage cross-border deals and dollar value of cross-border deals. In columns 1 and 4, we exclude India and Ireland – the only two countries with different respondents in 2009 – so that all countries included in the analysis have the same number of respondents (1,000). In columns 2 and 5, we exclude countries with above-median populations which are more likely to be demographically diverse. We argue that, by focusing on the small countries, our results are unlikely affected by the potential measurement error problem which mainly applies to diverse countries with larger populations. In columns 3 and 6, we exclude countries with primary religions other than Christianity (Catholicism and Protestantism) and Buddhism, to ensure that all primary religion effects are controlled for. We show in Table 7 that our results remain robust in all these subsample tests.

[Insert Table 7 about here]

We next address a potential endogeneity concern in our cash payment analysis, arising from cash holdings. Specifically, other than religiosity and risk aversion, a firm's cash holdings may as well affect its decision to use cash payment as apposed to stock payment. In Table 8, we

include cash holding (defined as cash divided by book assets) as an additional control. We find that the coefficient estimate of religiosity remains statistically significant.

[Insert Table 8 about here]

Finally, we consider possible omitted variables. While it is impossible to control for all determinants of cross-border M&As, we try including a large set of variables in our country-level analysis including exchange rate, tariff rate, and free trade zone status (such as NAFTA and EU membership). As for the deal-level analysis, we include gender distribution and education of both target and acquirer countries. Following Hilary and Hui (2009), we measure gender distribution using the female ratio (Female %) in both acquirer and target countries. Education is measured using the percentage of tertiary school enrollment in both acquirer and target countries. These two variables are from the World Bank. We also include book assets, ROA, leverage, liquidity and R&D spending for both target and acquirer firms as additional control variables. Due to data limitations, if a firm-level variable is not available, we use its country's average. We report results after including these new controls in Appendices B1 – B4. Overall, our results hold: religiosity negatively affects cross-border M&A intensity, percentage cash payment, and takeover premium.

4.3 Discussion

What distinguishes our paper from those of the existing research is that, using a proxy of risk aversion, we are able to show that when firms invest, it is not just actual risk, but the perceived risk also plays an important role. *RELIGIOSITY*, the religiosity of acquirer countries, is consistently negative and significant to predict cross-border M&A activities, regardless of the model used or controls included. This effect extends to the acquirers' choice of payment and acquisition premium as well.

Although not our original intention, we also provide some additional insight into the role of primary religions. While we find consistent results for the role of religiosity, we do not find similar results for the role of primary religions. Religion has been usually considered as a proxy of culture and many researchers have provided interesting insights into the role religion plays in cross-country variations in investor rights. For instance, Stulz and Williamson (2003) show that Catholic countries have significantly weaker creditor rights than countries with other religions. Protestant countries have been often praised for their capitalist endeavors (Weber, 1930) and they might be expected to be more risk-taking. For Islamic states, religious restrictions on finance with regards to speculation and uncertainty (Naughton and Naughton, 2000) imply that countries with these regulations might experience less cross-border activities. However, we do not see consistent results regarding the role of any primary religion. Hence, although religion has been often cited as an important driver of economic growth and a cultural force that shapes corporate decisions, we do not find much evidence supporting the role of any particular religion. Rather, the intensity with which these religions are practiced seems to play a much bigger role, at least in the context of CBMA decision-making.

Due to data limitations, we are unable to measure religiosity at the firm headquarters' locations more specifically than at the country level. In addition, we are unable to analyze personal characteristics of executives involved in cross-border M&As, nor how different religions will steer post-acquisition corporate decisions. These would be interesting opportunities for future research if data become available.

5. Conclusion

The effect of culture on economic and financial decision-making has been long acknowledged. Despite this, studies of how culture could influence cross-border acquisitions are limited to the

past two decades. What is even more scarce are the studies of the role of religion and religiosity in cross-border settings.

Arguably, the study by Hillary and Hui (2009) is one of the first papers that directly test the effect of religion on risk-averse financial behavior. Subsequent papers that follow Hillary and Hui (2009) use religion to further confirm the risk-averse financial decisions made by religious managers. These papers are mostly limited to domestic settings, and to our knowledge, there is not a single research that solely focuses on the role religion and religiosity play in cross-border merger decisions.

Despite the popular use of religion as a proxy for culture, we find little support for the role primary religions play in cross border M&As. We do not find evidence that any particular religion (Buddhist, Catholic, and Protestant) has a consistent effect on merger decisions and their payments. Rather, it is the religious intensities of the adherents that play a consistent role in whether firms make cross-border mergers, whether they pay in cash or stock, or how much they pay. Hence, we contribute to the broader literature on the role of national culture on cross-border M&A decisions, method of payment, and premium offered. More specifically, we contribute to the understanding of how nation-wide religion and religiosity affect the acquirer's behavior and risk-taking propensities in the context of M&A decisions.

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Table 1. Cross Border Mergers, Religion, and Religiosity by Country

This table summarizes cross-border M&As, religiosity, and primary religion by acquirer country.

	# Acq	Total Deal Value (in mil)	Religiosity	Primary Religion
Argentina	4	7238	0.66	Catholic
Australia	29	33637	0.32	Protestant
Austria	6	1940	0.55	Catholic
Belgium	26	181027	0.33	Catholic
Brazil	6	19390	0.86	Catholic
Canada	150	160741	0.42	Catholic
Chile	2	3478	0.69	Catholic
Denmark	22	11435	0.18	Protestant
Finland	18	34134	0.28	Protestant
France	99	198885	0.29	Catholic
Germany	82	222544	0.41	Protestant
Greece	2	3139	0.71	Greek Orthodox
Hong Kong	31	7123	0.23	Local beliefs
India	11	1880	0.79	Hindu
Ireland	31	60785	0.54	Catholic
Israel	18	31196	0.5	Judaism
Italy	29	36237	0.71	Catholic
Japan	63	68117	0.23	Buddhist
Korea, South	10	10362	0.33	Protestant
Malaysia	5	3341	0.95	Muslim
Mexico	12	25286	0.72	Catholic
Netherlands	94	239828	0.25	Catholic
New Zealand	8	9035	0.33	Protestant
Norway	11	9122	0.2	Protestant
Philippines	6	1996	0.95	Catholic
Singapore	27	23382	0.7	Buddhist
South Africa	13	6105	0.84	Protestant
Spain	20	77637	0.5	Catholic
Sweden	42	32097	0.17	Protestant
Switzerland	60	130477	0.41	Catholic
Thailand	3	3952	0.94	Buddhist
United Kingdom	205	627700	0.27	Protestant
United States	409	324714	0.65	Protestant

Table 2. Summary Statistics

This table provides summary statistics of our key variables at the deal level (Panel A) and at the acquirer country level (Panel B). We report correlation matrices at the deal level and at the acquirer country level in Panel C and Panel D, respectively.

Panel A. Deal Level Summary Statistics

	N	Mean	Min	p25	p50	p75	Max	S.D.
Percentage Cash	1263	91.67	0.03	100.00	100.00	100.00	100.00	19.63
Premium	1596	3.64	0.63	3.23	3.71	4.15	5.62	0.83
Religiosity Acquirer	1596	0.44	0.17	0.27	0.41	0.65	0.95	0.19
Religiosity Target	1596	0.47	0.17	0.29	0.42	0.65	0.98	0.18
Protestant	1596	0.55	0.00	0.00	1.00	1.00	1.00	0.50
Catholics	1596	0.35	0.00	0.00	0.00	1.00	1.00	0.48
Buddhist	1596	0.06	0.00	0.00	0.00	0.00	1.00	0.24
UAI	1596	52.41	8.00	46.00	46.00	59.00	100.00	19.15
Deal Value	1596	5.89	3.22	4.60	5.72	7.01	12.22	1.60
Size	1596	5.49	-0.22	4.29	5.34	6.64	11.07	1.67
Hostile	1596	0.06	0.00	0.00	0.00	0.00	1.00	0.24
Legal (Target)	1596	0.19	0.00	0.00	0.00	0.00	1.00	0.39
Shareholder Protection (Target)	1596	4.12	0.00	4.00	5.00	5.00	5.00	1.23
Rule of Law (Target)	1596	9.40	2.73	8.98	10.00	10.00	10.00	1.19
Mandatory (Target)	1596	0.64	0.00	0.00	1.00	1.00	1.00	0.48
Same Industry	1596	0.56	0.00	0.00	1.00	1.00	1.00	0.50
Same Language	1596	0.54	0.00	0.00	1.00	1.00	1.00	0.50
Same Religion	1596	0.39	0.00	0.00	0.00	1.00	1.00	0.49
Same Legal	1596	0.61	0.00	0.00	1.00	1.00	1.00	0.49
Geo Distance	1596	8.33	4.96	7.81	8.85	8.96	9.83	1.08
GDP, log (Target)	1596	28.65	25.72	27.79	28.36	30.13	30.44	1.34
GDP Growth (Target)	1596	0.03	-0.03	0.02	0.03	0.04	0.08	0.02
GDP, log (Acquirer)	1596	28.39	25.07	27.33	28.38	29.98	30.44	1.40
GDP Growth (Acquirer)	1596	0.03	-0.04	0.02	0.03	0.04	0.10	0.02

Panel B. Acquirer Country Level Summary Statistics

	N	Mean	Min	p25	p50	p75	Max	S.D.
% Cross Border Deals	438	0.75	0.09	0.68	0.79	0.88	1.00	0.17
Dollar Value Cross Border (log)	438	7.34	2.13	6.12	7.40	8.61	11.17	1.91
Religiosity Acq	438	0.47	0.17	0.27	0.42	0.66	0.95	0.22
Protestant	438	0.36	0.00	0.00	0.00	1.00	1.00	0.48
Catholics	438	0.43	0.00	0.00	0.00	1.00	1.00	0.50
Buddhist	438	0.08	0.00	0.00	0.00	0.00	1.00	0.27
UAI	438	58.75	8.00	40.00	53.00	81.00	100.00	23.16
Legal (Common=1)	438	0.43	0.00	0.00	0.00	1.00	1.00	0.50
Shareholder Protection	438	3.29	0.00	2.00	4.00	4.00	5.00	1.46
Rule of Law	438	8.45	2.08	7.80	8.98	10.00	10.00	1.86
GDP (log)	438	27.37	25.36	26.33	27.27	28.30	30.34	1.21
# of total listed firms (log)	438	6.23	3.71	5.15	6.15	7.35	9.00	1.30
Trade (% of GDP)	438	88.51	16.44	45.00	61.80	85.87	398.66	82.47
GDP Growth	438	0.03	-0.06	0.01	0.03	0.04	0.11	0.03

Panel C. Correlations (Deal Level)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	Percentage Cash	1.00																							
2	Premium	0.01	1.00																						
3	Religiosity Acquirer	-0.04	-0.03	1.00																					
4	Religiosity Target	-0.02	-0.01	-0.24	1.00																				
5	Protestant	-0.04	-0.03	0.15	-0.20	1.00																			
6	Catholics	-0.01	0.04	-0.13	0.15	-0.81	1.00																		
7	Buddhist	0.09	0.00	-0.07	0.05	-0.28	-0.19	1.00																	
8	UAI	0.07	0.02	-0.10	0.08	-0.44	0.40	0.18	1.00																
9	Deal value	-0.20	-0.08	-0.11	0.12	-0.06	0.11	0.00	0.14	1.00															
10	Size	-0.16	-0.14	-0.11	0.06	-0.08	0.10	0.02	0.16	0.84	1.00														
11	Hostile	-0.01	0.04	0.04	-0.08	-0.05	0.02	-0.01	0.02	0.12	0.14	1.00													
12	Legal (Target)	0.01	-0.10	-0.04	-0.33	0.08	-0.03	-0.04	0.01	0.00	0.10	-0.05	1.00												
13	Shareholder Protection (Target)	-0.06	0.11	-0.04	0.25	-0.05	0.06	-0.03	0.01	0.04	-0.07	0.02	-0.77	1.00											
14	Rule of Law (Target)	-0.10	0.06	-0.13	-0.08	-0.01	0.03	-0.05	-0.02	0.05	-0.01	0.02	-0.09	0.51	1.00										
15	Mandatory (Target)	0.07	-0.07	0.34	-0.73	0.24	-0.24	0.00	-0.09	-0.17	-0.07	0.06	0.35	-0.53	-0.36	1.00									
16	Same Industry	-0.16	0.03	0.03	0.05	-0.05	0.06	-0.02	0.01	0.12	0.05	0.01	-0.02	0.03	0.02	-0.06	1.00								
17	Same Language	-0.09	0.01	0.27	-0.03	0.22	-0.18	-0.13	-0.48	-0.11	-0.16	0.01	-0.34	0.29	0.15	0.07	0.06	1.00							
18	Same Religion	0.02	0.00	-0.10	-0.15	0.45	-0.32	-0.17	-0.16	0.03	0.02	0.00	0.08	-0.05	0.04	0.00	0.00	0.12	1.00						
19	Same Legal	-0.10	0.00	0.23	-0.09	0.20	-0.21	-0.11	-0.42	-0.15	-0.15	-0.02	-0.09	0.03	0.03	0.14	0.08	0.78	0.08	1.00					
20	Geo Distance	0.02	0.04	0.12	0.31	0.12	-0.23	0.14	-0.06	-0.01	-0.09	0.02	-0.38	0.29	0.01	-0.29	0.03	0.06	0.12	-0.06	1.00				
21	GDP, log (Target)	-0.08	0.08	-0.27	0.50	-0.20	0.23	-0.03	0.09	0.15	0.05	-0.02	-0.40	0.63	0.45	-0.87	0.05	-0.01	0.01	-0.13	0.21	1.00			
22	GDP Growth (Target)	0.00	-0.08	-0.04	0.17	-0.01	0.01	0.01	-0.02	0.03	-0.01	-0.04	-0.11	0.01	-0.15	-0.05	-0.02	0.01	0.02	-0.01	0.06	-0.10	1.00		
23	GDP, log (Acquirer)	-0.04	0.00	0.42	-0.18	0.50	-0.39	-0.02	0.06	-0.02	-0.05	-0.04	0.02	-0.05	-0.09	0.29	-0.04	0.16	0.06	0.09	0.14	-0.22	-0.08	1.00	
24	GDP Growth (Acquirer)	0.01	-0.04	0.13	0.02	-0.06	0.00	-0.03	-0.19	0.00	-0.04	0.01	-0.08	0.07	0.02	-0.05	0.00	0.10	-0.03	0.07	0.00	0.05	0.50	-0.24	1.00

Panel D. Correlations (Acq Country Level)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	% Cross Border Deals	1.00													
2	Dollar Value Cross Border (log)	0.33	1.00												
3	Religiosity Acq	-0.33	-0.15	1.00											
4	Protestant	-0.08	0.13	-0.32	1.00										
5	Catholics	-0.15	-0.04	0.17	-0.65	1.00									
6	Buddhist	0.19	0.03	0.00	-0.22	-0.26	1.00								
7	UAI	-0.20	-0.07	0.06	-0.38	0.48	-0.04	1.00							
8	Legal	0.13	0.15	0.20	0.15	-0.42	0.03	-0.61	1.00						
9	Shareholder Protection	-0.05	0.14	0.03	0.19	-0.39	0.12	-0.48	0.68	1.00					
10	Rule of Law	0.23	0.19	-0.67	0.34	-0.01	0.03	-0.16	-0.17	-0.14	1.00				
11	GDP (log)	-0.10	0.54	0.03	0.09	0.05	0.10	0.29	-0.13	0.04	0.14	1.00			
12	# of total listed firms (log)	0.01	0.44	0.03	0.10	-0.34	0.15	-0.10	0.43	0.53	-0.04	0.65	1.00		
13	Trade (% of GDP)	0.35	-0.04	-0.02	-0.30	-0.08	0.29	-0.49	0.30	0.06	0.05	-0.50	-0.18	1.00	
14	GDP Growth	0.08	0.03	0.21	-0.08	-0.10	0.00	-0.22	0.25	0.18	-0.25	-0.22	0.02	0.18	1.00

Table 3. Religiosity and Percentage of Cross Border Deals

This table presents the relationship between religiosity of the acquirer's country and the percentage of cross border deal numbers. Variable definitions can be found in Appendix A. All regressions include year and industry fixed effects. Standard errors are clustered at the country level. T-statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5%, and 10%, respectively.

	(1)	(2)	(3)	(4)	(5)
Dep. Var.	% Cross Border Deals				
Religiosity Acq	-2.668***	-2.587***	-2.984***	-2.620***	-2.881***
	(-3.31)	(-3.04)	(-3.80)	(-3.29)	(-3.72)
Protestant		0.159			1.120*
		(0.35)			(1.80)
Catholics			0.457		1.128*
			(1.37)		(1.84)
Buddhist				-0.752	0.070
				(-1.30)	(0.11)
UAI	-0.009	-0.006	-0.014	-0.007	-0.005
	(-0.94)	(-0.56)	(-1.29)	(-0.85)	(-0.51)
Legal	1.011**	0.995**	1.036**	0.930**	0.971**
	(2.16)	(2.12)	(2.39)	(2.06)	(2.13)
Shareholder Protection	-0.104	-0.097	-0.128	-0.061	-0.118
	(-0.79)	(-0.74)	(-0.98)	(-0.49)	(-0.90)
Rule of Law	0.073	0.082	0.067	0.075	0.065
	(0.88)	(1.05)	(0.83)	(0.96)	(1.04)
GDP (log)	0.001**	0.000	0.001**	0.000	-0.000
	(2.08)	(1.08)	(2.18)	(1.47)	(-0.72)
GDP Growth	0.048	0.049	0.059	0.089**	0.115***
	(1.01)	(1.11)	(1.29)	(2.19)	(3.03)
# of total listed firms (log)	0.739*	0.648	0.732*	0.698*	0.419
	(1.82)	(1.45)	(1.86)	(1.74)	(0.98)
Trade (% of GDP)	-0.012	-0.010	-0.011	-0.019	-0.003
	(-0.61)	(-0.53)	(-0.57)	(-0.94)	(-0.18)
Total #Acq (log)	-0.030	-0.034	-0.027	-0.037*	-0.028
	(-1.34)	(-1.58)	(-1.25)	(-1.72)	(-1.49)
Constant	1.003	1.217	1.020	1.966**	1.962**
	(0.95)	(1.22)	(1.02)	(2.33)	(2.70)
Observations	438	438	438	438	438
R-squared	0.335	0.361	0.341	0.381	0.459

Table 4. Religiosity and Cross Border Deal Value

This table presents the relationship between religiosity of the acquirer's country and the total dollar value of cross border deals. Variable definitions can be found in Appendix A. All regressions include year and industry fixed effects. Standard errors are clustered at the country level. T-statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5%, and 10%, respectively.

	(1)	(2)	(3)	(4)	(5)
Dep. Var.	Dollar Value Cross Border				
Religiosity Acq	-1.700***	-1.646***	-1.592***	-1.629***	-1.682***
	(-3.25)	(-3.02)	(-2.82)	(-3.56)	(-3.19)
Protestant		0.108			0.410
		(0.39)			(0.83)
Catholics			-0.123		0.319
			(-0.59)		(0.76)
Buddhist				0.678***	0.879**
				(3.34)	(2.43)
UAI	0.008	0.010	0.010	0.008	0.010
	(1.29)	(1.18)	(1.34)	(1.34)	(1.24)
Legal	0.434*	0.424*	0.414*	0.440*	0.455*
	(1.88)	(1.87)	(1.79)	(1.84)	(1.90)
Shareholder Protection	0.003	0.008	0.012	-0.023	-0.036
	(0.03)	(0.07)	(0.11)	(-0.21)	(-0.32)
Rule of Law	-0.219**	-0.221**	-0.217**	-0.245***	-0.269***
	(-2.59)	(-2.60)	(-2.57)	(-2.96)	(-2.89)
GDP (log)	0.340**	0.343**	0.333**	0.190	0.174
	(2.27)	(2.24)	(2.19)	(1.22)	(1.16)
GDP Growth	4.354	4.465	4.330	4.190	4.627
	(0.97)	(1.03)	(0.97)	(0.94)	(1.10)
# of total listed firms (log)	-0.218*	-0.218*	-0.242*	-0.223*	-0.161
	(-1.72)	(-1.72)	(-1.74)	(-1.73)	(-1.31)
Trade (% of GDP)	0.004**	0.004**	0.004***	0.002**	0.003*
	(2.71)	(2.13)	(2.79)	(2.38)	(2.03)
Total # Acq (log)	1.387***	1.386***	1.419***	1.548***	1.508***
	(9.03)	(8.88)	(8.65)	(9.79)	(9.62)
Constant	-5.542	-5.801	-5.489	-1.733	-1.725
	(-1.63)	(-1.67)	(-1.63)	(-0.51)	(-0.53)
Observations	438	438	438	438	438
R-squared	0.704	0.705	0.705	0.710	0.712

Table 5. Religiosity and Cash Payment

This table presents the relationship between religiosity of the acquirer's country and the payment type in cross border deals. Variable definitions can be found in Appendix A. All regressions include year and industry fixed effects. Standard errors are clustered at the country level. T-statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5%, and 10%, respectively.

Dep. Var.	(1)	(2)	(3)	(4)	(5)	(6)
	Percentage Cash					
Religiosity Acq	-8.856***	-8.909***	-8.619***	-7.851***	-7.954***	-6.239*
	(-3.26)	(-3.27)	(-2.92)	(-3.24)	(-3.01)	(-1.84)
Religiosity Target	3.685	3.944	3.375	3.933	4.087	2.185
	(0.60)	(0.63)	(0.54)	(0.65)	(0.66)	(0.38)
Protestant		-0.523			1.884	-2.552
		(-0.29)			(0.60)	(-1.08)
Catholics			-0.591		1.856	-3.128
			(-0.32)		(0.54)	(-1.16)
Buddhist				3.625***	5.249	2.525
				(2.80)	(1.68)	(1.42)
UAI	0.117***	0.110**	0.122**	0.105***	0.107**	0.135**
	(2.88)	(2.17)	(2.56)	(2.77)	(2.28)	(2.32)
Deal Value	-2.046***	-2.039***	-2.028***	-1.967**	-2.014***	-2.389***
	(-2.81)	(-2.78)	(-2.86)	(-2.71)	(-2.89)	(-3.47)
Size	-0.692	-0.696	-0.704	-0.736	-0.707	-0.415
	(-0.71)	(-0.71)	(-0.74)	(-0.76)	(-0.75)	(-0.66)
Hostile	3.772*	3.750*	3.794*	3.841*	3.877*	5.657***
	(1.82)	(1.84)	(1.86)	(1.87)	(1.90)	(3.14)
Legal (Target)	0.131	0.164	0.157	0.388	0.300	1.220
	(0.08)	(0.10)	(0.09)	(0.23)	(0.18)	(0.53)
Shareholder Protection (Target)	0.584	0.622	0.566	0.713	0.687	0.506
	(0.91)	(0.95)	(0.89)	(1.15)	(1.08)	(0.79)
Rule of Law (Target)	-0.531	-0.512	-0.574	-0.599	-0.560	-0.874
	(-1.30)	(-1.26)	(-1.56)	(-1.55)	(-1.53)	(-1.62)
Mandatory (Target)	3.821	3.971	3.550	3.454	3.599	-2.193
	(0.91)	(0.92)	(0.78)	(0.81)	(0.79)	(-0.38)
Same Industry	-3.370**	-3.385**	-3.357**	-3.393**	-3.392**	-3.437**
	(-2.58)	(-2.60)	(-2.54)	(-2.60)	(-2.58)	(-2.63)
Same Language	1.083	0.918	1.322	1.168	1.049	1.654
	(0.49)	(0.38)	(0.56)	(0.56)	(0.47)	(0.63)
Same Religion	1.953*	2.175	1.785	2.273*	2.143	0.873
	(1.72)	(1.61)	(1.42)	(2.04)	(1.62)	(0.51)
Same Legal	-3.310	-3.228	-3.496	-3.399	-3.152	-1.824
	(-1.52)	(-1.44)	(-1.51)	(-1.61)	(-1.43)	(-0.69)
Geo Distance	1.419**	1.411**	1.369**	1.205**	1.293**	1.302*
	(2.34)	(2.32)	(2.26)	(2.06)	(2.12)	(1.82)
GDP, log (Target)	-1.028	-1.035	-1.033	-1.117	-1.118	-1.157
	(-0.84)	(-0.85)	(-0.84)	(-0.91)	(-0.91)	(-0.88)
GDP Growth (Target)	-89.748	-89.675	-90.735	-97.562*	-98.228*	-123.851
	(-1.59)	(-1.59)	(-1.60)	(-1.75)	(-1.76)	(-1.65)
GDP, log (Acquirer)	-0.897	-0.799	-0.987	-0.928*	-1.016	-1.356*
	(-1.56)	(-1.15)	(-1.44)	(-1.75)	(-1.54)	(-1.84)
GDP Growth (Acquirer)	32.470	32.166	30.568	29.507	35.248	5.011
	(0.90)	(0.91)	(0.86)	(0.82)	(1.00)	(0.14)
Constant	110.805**	108.541**	114.569**	116.811***	115.829**	142.691***
	(2.73)	(2.54)	(2.51)	(2.86)	(2.59)	(2.93)
Observations	1,127	1,127	1,127	1,127	1,127	684
R-squared	0.178	0.178	0.178	0.180	0.180	0.212

Table 6. Religiosity and Takeover Premium

This table presents the relationship between religiosity of the acquirer's country and the takeover premium in cross border deals. Variable definitions can be found in Appendix A. All regressions include year and industry fixed effects. Standard errors are clustered at the country level. T-statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5%, and 10%, respectively.

Dep. Var.	(1)	(2)	(3)	(4)	(5)	(6)
			Premium			
Religiosity Acq	-0.256**	-0.270**	-0.285**	-0.253*	-0.275**	-0.340***
	(-2.07)	(-2.26)	(-2.40)	(-1.99)	(-2.34)	(-2.76)
Religiosity Target	-0.262	-0.214	-0.215	-0.261	-0.202	-0.251
	(-1.38)	(-1.06)	(-1.07)	(-1.37)	(-1.00)	(-1.16)
Protestant		-0.091			0.026	-0.056
		(-1.50)			(0.20)	(-0.37)
Catholics			0.089**		0.127	0.002
			(2.13)		(1.20)	(0.02)
Buddhist				0.016	0.096	-0.045
				(0.26)	(0.99)	(-0.40)
UAI	0.000	-0.001	-0.000	0.000	-0.001	0.000
	(0.44)	(-0.62)	(-0.52)	(0.38)	(-0.63)	(0.01)
Deal Size	0.016	0.016	0.014	0.016	0.014	0.017
	(0.60)	(0.59)	(0.48)	(0.60)	(0.47)	(0.47)
	-	-	-	-	-	
Target Size	0.091***	0.090***	0.088***	0.091***	0.088***	-0.091**
	(-2.95)	(-2.90)	(-2.82)	(-2.94)	(-2.79)	(-2.28)
Hostile	0.100*	0.095	0.096	0.101*	0.098	0.146*
	(1.70)	(1.60)	(1.57)	(1.73)	(1.59)	(1.73)
Legal (Target)	-0.172	-0.163	-0.175	-0.171	-0.170	-0.137
	(-1.59)	(-1.49)	(-1.64)	(-1.57)	(-1.58)	(-1.36)
Shareholder Protection (Target)	0.005	0.013	0.009	0.005	0.012	0.014
	(0.14)	(0.40)	(0.29)	(0.16)	(0.39)	(0.42)
Rule of Law (Target)	0.012	0.014	0.017	0.012	0.017	0.006
	(0.48)	(0.55)	(0.68)	(0.46)	(0.66)	(0.20)
Mandatory (Target)	-0.295*	-0.269*	-0.257	-0.297*	-0.256	-0.049
	(-1.99)	(-1.77)	(-1.68)	(-1.98)	(-1.66)	(-0.07)
Same Industry	-0.001	-0.003	-0.003	-0.001	-0.004	0.025
	(-0.02)	(-0.08)	(-0.07)	(-0.02)	(-0.09)	(0.47)
Same Language	-0.010	-0.036	-0.043	-0.010	-0.048	-0.008
	(-0.13)	(-0.50)	(-0.57)	(-0.13)	(-0.64)	(-0.10)
Same Religion	-0.012	0.024	0.011	-0.011	0.019	0.037
	(-0.27)	(0.41)	(0.23)	(-0.23)	(0.32)	(0.62)
Same Legal	-0.035	-0.023	-0.012	-0.035	-0.006	-0.011
	(-0.50)	(-0.34)	(-0.16)	(-0.50)	(-0.08)	(-0.15)
Geo Distance	-0.010	-0.010	-0.002	-0.011	-0.004	-0.012
	(-0.62)	(-0.63)	(-0.12)	(-0.61)	(-0.20)	(-0.53)
GDP, log (Target)	-0.079	-0.081*	-0.080	-0.079	-0.082*	-0.072
	(-1.66)	(-1.71)	(-1.68)	(-1.66)	(-1.72)	(-1.47)
GDP Growth (Target)	-2.140	-2.274	-2.170	-2.169	-2.323	-0.652
	(-0.96)	(-1.03)	(-0.98)	(-0.97)	(-1.06)	(-0.30)
GDP, log (Acquirer)	0.018	0.035*	0.031*	0.018	0.032*	0.035
	(1.35)	(1.91)	(1.90)	(1.35)	(1.70)	(1.40)
GDP Growth (Acquirer)	0.786	0.750	1.064	0.772	1.111	1.344
	(0.58)	(0.55)	(0.77)	(0.58)	(0.76)	(0.47)
Constant	5.937***	5.523***	5.392***	5.958***	5.403***	5.049***
	(3.86)	(3.62)	(3.44)	(3.84)	(3.47)	(3.21)
Observations	1,429	1,429	1,429	1,429	1,429	901
R-squared	0.107	0.108	0.108	0.107	0.109	0.129

Table 7. Robustness: Subsample Analysis

This table presents the relationship between religiosity of the acquirer's country and the intensity of cross-border M&A (percentage of cross-border deals in columns 1-3, and dollar amount of deals in columns 4-6). We exclude India and Ireland (two countries with different religiosity survey sample size) in columns 1 and 4. We analyze only small countries in columns 2 and 5, and only Christian and Buddhist countries in columns 3 and 6. Variable definitions can be found in Appendix A. All regressions include year and industry fixed effects. Standard errors are clustered at the country level. T-statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5%, and 10%, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Dep. Var.	% Cross Border Deals			Dollar Value Cross Border		
	Excl. India & Ireland	Small Countries	Christian & Buddhist	Excl. India & Ireland	Small Countries	Christian & Buddhist
Religiosity Acq	-0.226**	-0.212**	-0.297*	-1.762***	-1.248**	-2.401***
	(-2.29)	(-2.46)	(-1.93)	(-3.73)	(-2.16)	(-4.24)
Protestant	-0.257**	-0.047	-0.216**	0.058	0.171	-0.174
	(-2.54)	(-0.31)	(-2.26)	(0.14)	(0.22)	(-0.39)
Catholics	-0.217***	-0.028	-0.161*	0.125	-0.360	-0.095
	(-2.93)	(-0.22)	(-2.01)	(0.34)	(-0.73)	(-0.26)
Buddhist	0.033	0.010		0.649**	0.439*	
	(0.53)	(0.17)		(2.08)	(1.83)	
UAI	-0.000	-0.002**	-0.001	0.001	0.008	0.002
	(-0.36)	(-2.27)	(-0.46)	(0.14)	(1.56)	(0.22)
Legal	0.028	-0.078	0.051	0.285	0.047	0.434*
	(0.45)	(-1.46)	(0.69)	(1.15)	(0.26)	(1.77)
Shareholder Protection	-0.033	-0.028*	-0.018	-0.092	0.138	-0.046
	(-1.68)	(-1.90)	(-0.95)	(-0.79)	(1.62)	(-0.41)
Rule of Law	-0.000	-0.074**	-0.002	-0.280***	-0.479**	0.378*
	(-0.00)	(-2.83)	(-0.05)	(-3.28)	(-2.92)	(1.97)
GDP (log)	-0.047	0.081	-0.038*	0.176	0.918***	-0.077
	(-1.42)	(0.89)	(-1.72)	(1.24)	(3.17)	(-0.71)
GDP Growth	0.443	0.114	0.000	7.195	3.343	0.004
	(0.86)	(0.34)	(0.67)	(1.52)	(0.67)	(1.68)
# of total listed firms (log)	-0.016	-0.052	0.458	-0.017	-0.483***	6.841
	(-0.67)	(-1.11)	(1.10)	(-0.11)	(-3.31)	(1.49)
Trade (% of GDP)	-0.000	0.000	-0.000	0.001	0.004	-0.317***
	(-0.84)	(0.94)	(-0.00)	(0.93)	(1.62)	(-3.43)
Total #Acq (log)	0.106**	0.012	0.079*	1.405***	1.504***	1.277***
	(2.72)	(0.24)	(1.73)	(10.64)	(5.87)	(7.57)
Constant	2.096***	-0.242	1.035	-1.049	-17.853***	-5.235
	(2.86)	(-0.12)	(1.02)	(-0.33)	(-2.99)	(-1.02)
Observations	410	221	381	410	221	381
R-squared	0.460	0.576	0.445	0.723	0.662	0.738

Table 8. Religiosity, Cash Payment, and Cash Holdings

This table presents the relationship between religiosity of the acquirer's country and the payment type in cross-border deals, after controlling for cash holdings. Variable definitions can be found in Appendix A. All regressions include year and industry fixed effects. Standard errors are clustered at the country level. T-statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5%, and 10%, respectively.

	(1)
Dep. Var.	Percentage Cash
Religiosity Acq	-8.555***
	(-3.45)
Religiosity Target	3.823
	(0.63)
Cash/Asset	-37.846***
	(-3.04)
Protestant	2.410
	(0.94)
Catholics	0.689
	(0.24)
Buddhism	4.986*
	(1.99)
Deal Size	-1.878**
	(-2.47)
UAI	0.082*
	(1.77)
Target Size	-0.838
	(-0.82)
Hostile	4.182**
	(2.06)
Legal (Target)	0.172
	(0.10)
Shareholder Protection (Target)	0.713
	(1.09)
Rule of Law (Target)	-0.536
	(-1.46)
Mandatory (Target)	4.921
	(1.08)
Same Industry	-3.388**
	(-2.50)
Same Language	0.973
	(0.46)
Same Religion	1.658
	(1.26)
Same Legal	-3.014
	(-1.40)
Geo Distance	1.534**
	(2.63)
GDP, log (Target)	-0.874
	(-0.73)
GDP Growth (Target)	-90.608
	(-1.63)
GDP, log (Acquirer)	-0.411
	(-0.56)

GDP Growth (Acquirer)	33.245
	(0.96)
Constant	93.523**
	(2.10)
Observations	1,116
R-squared	0.185

Appendix A. Variable Definitions

Variable Name	Definition	Source
Percentage Cash	Percentage of payment made in cash *100	SDC Platinum
Premium	ln((offer price - previous 1 week's closing market price)/previous 1 week's closing market price*100)	SDC Platinum
% Cross Border Deals	Percentage number of M&A deals that are cross-border for the acquirer country	SDC Platinum
Dollar Value Cross Border	Log total dollar value of cross-border M&A deals	SDC Platinum
Religiosity	Country level religiosity from the Gallup survey; the survey asks respondents in each country whether religion is important in their lives. A country's religiosity is measured by the proportion (0% to 100%) of respondents in the country for which religion is important in daily life.	Gallup Survey
Protestant	Equals one if the primary religion is protestant	2000 CIA World Factbook
Catholics	Equals one if the primary religion is Catholics	2000 CIA World Factbook
Buddhist	Equals one if the primary religion is Buddhist	2000 CIA World Factbook
UAI	The degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. Countries exhibiting strong UAI maintain rigid codes of belief and behavior, and are intolerant of unorthodox behavior and ideas.	Hofstede (2001)
Deal Value	Transaction Value in US $ millions	SDC Platinum
Size	Logarithm of the target company's total assets as at the most recent quarter end in US $ millions	SDC Platinum
Hostile	Equals one if the deal is hostile, and zero otherwise	SDC Platinum
Legal	Equals one if the origin of the country's law is English Common Law, and zero otherwise	La Porta et al. (1998)
Shareholder Protection	An index aggregating antidirector rights from 0 to 6. The higher value indicates better shareholder right protection	La Porta et al. (1998)
Rule of Law	Assessment of the law and order tradition in the country produced by the International Country Risk country risk rating agency International Country Risk (ICR). Scale from zero to 10, with lower scores for less tradition for law and order	La Porta et al. (1998)
Mandatory	Equals one if in 2006 there was a legal requirement to make a tender offer when shareholders after the acquisition exceed a given ownership threshold, and zero otherwise	Nenova (2006)
Same Industry	Equals one if the target and the acquirer firm belong to the same industry	SDC Platinum
Same Language	Equals one if the target and the acquirer firm locate in countries that speak the same language	2000 CIA World Factbook
Same Religion	Equals one if the target and the acquirer firm locate in countries that have the same primary religion	2000 CIA World Factbook
Same Legal	Equals one if the target and the acquirer firm locate in countries that have the same legal system	La Porta et al. (1998)
Geo Distance	Natural log of the geographical distance between the acquirer and the target countries' most populous cities	CEPII Geographical Distance database
GDP, log	Country's annual GDP (in constant US 2010 $), logged	World Bank
GDP Growth	Country's annual GDP growth rate	World Bank
# of total listed firms	Total number of listed domestic companies, logged	World Bank
Trade (% of GDP)	Trade is the sum of exports and imports of goods and services measured as a share of gross domestic product.	World Bank
Total #Acq (log)	Total number of acquirers in a country.	SDC Platinum

Stock Market Cap/GDP	Total stock market capitalization scaled by country's GDP	World Bank
Exchange rate	Exchange rate vs. USD	World Bank
Tariff rate	Tariff rate in a given year	World Bank
NAFTA	Equals one if the acquirer country is a member country of the North American Free Trade Agreement	
EU	Equals one if the acquirer country is a member of the European Union	
Assets	Book assets of the target/acquirer	Compustat Global
ROA	Return on asset of the target/acquirer	Compustat Global
Leverage	Financial leverage of the target/acquirer	Compustat Global
Liquidity	Bid-ask-spread of the target/acquirer	Compustat Global
R&D	Research and development expenditure of the target/acquirer	Compustat Global
Female %	Percentage of female citizens in the target/acquirer country	World Bank
Education	Percentage of tertiary school enrollment of the target/acquirer country	World Bank

Appendix B1. Religiosity and Percentage of Cross-Border Deals: Additional Controls

This table presents the relationship between religiosity of the acquirer's country and the percentage of cross-border deal numbers, with additional control variables. Variable definitions can be found in Appendix A. All regressions include year and industry fixed effects. Standard errors are clustered at the country level. T-statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5%, and 10%, respectively.

	(1)	(2)	(3)	(4)	(5)
Dep. Var.	% Cross Border Deals				
Religiosity Acq	-0.308**	-0.310**	-0.285**	-0.272**	-0.256**
	(-2.21)	(-2.24)	(-2.29)	(-2.17)	(-2.60)
Protestant		-0.040			-0.198*
		(-0.65)			(-1.83)
Catholics			-0.114**		-0.203**
			(-2.20)		(-2.17)
Buddhist				0.264***	0.153**
				(5.15)	(2.34)
UAI	-0.001	-0.001	0.001	-0.000	-0.000
	(-0.52)	(-0.80)	(1.06)	(-0.40)	(-0.40)
Legal	-0.001	0.009	-0.007	0.049	0.066
	(-0.01)	(0.12)	(-0.09)	(0.70)	(1.13)
Shareholder Protection	-0.031	-0.032	-0.025	-0.041**	-0.029*
	(-1.43)	(-1.45)	(-1.28)	(-2.12)	(-1.93)
Rule of Law	-0.033**	-0.032**	-0.029**	-0.037**	-0.024
	(-2.12)	(-2.06)	(-2.09)	(-2.59)	(-1.49)
GDP (log)	-0.018	-0.015	-0.026	-0.077**	-0.053*
	(-0.53)	(-0.44)	(-0.79)	(-2.57)	(-1.75)
GDP Growth	0.923*	0.856	1.049*	0.983**	0.859*
	(1.71)	(1.56)	(1.88)	(2.07)	(1.89)
# of total listed firms (log)	0.077*	0.068	0.069*	0.079**	0.023
	(2.00)	(1.66)	(1.90)	(2.16)	(0.55)
Trade (% of GDP)	0.001*	0.000	0.001***	-0.000	-0.000
	(1.74)	(0.67)	(2.88)	(-0.67)	(-0.98)
Total #Acq (log)	-0.015	-0.013	-0.000	0.009	0.031
	(-0.40)	(-0.36)	(-0.01)	(0.26)	(1.03)
Stock Market Cap/GDP	-0.000**	-0.000	-0.000***	0.000	0.000
	(-2.57)	(-1.67)	(-3.36)	(0.66)	(0.37)
Exchange rate	-0.000	-0.000	0.000	-0.000	0.000
	(-0.70)	(-1.01)	(0.40)	(-0.30)	(0.21)
Tariff rate	-0.021***	-0.022***	-0.015**	-0.015***	-0.010*
	(-3.14)	(-3.12)	(-2.38)	(-2.84)	(-1.74)
NAFTA	0.171***	0.156**	0.243***	0.247***	0.274***
	(2.81)	(2.30)	(4.30)	(5.40)	(6.09)
EU	0.105	0.102	0.139*	0.196**	0.206***
	(1.09)	(1.04)	(1.79)	(2.42)	(3.32)
Constant	1.350*	1.391*	1.350*	2.790***	2.391***
	(1.73)	(1.81)	(1.84)	(3.82)	(3.49)
Observations	309	309	309	309	309
R-squared	0.553	0.556	0.584	0.623	0.662

Appendix B2. Religiosity and Cross-Border Deal Value: Additional Controls

This table presents the relationship between religiosity of the acquirer's country and the total dollar value of cross-border deals, with additional control variables. Variable definitions can be found in Appendix A. All regressions include year and industry fixed effects. Standard errors are clustered at the country level. T-statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5%, and 10%, respectively.

	(1)	(2)	(3)	(4)	(5)
Dep. Var.	Dollar Value Cross Border				
Religiosity Acq	-1.466**	-1.454**	-1.399**	-1.331**	-1.330**
	(-2.50)	(-2.48)	(-2.40)	(-2.41)	(-2.44)
Protestant		0.257			0.377
		(0.78)			(0.71)
Catholics			-0.339		0.140
			(-1.39)		(0.33)
Buddhist				1.001***	1.082***
				(3.58)	(3.10)
UAI	0.002	0.006	0.007	0.002	0.006
	(0.25)	(0.64)	(0.89)	(0.32)	(0.68)
Legal	0.489	0.425	0.470	0.675**	0.605*
	(1.54)	(1.40)	(1.57)	(2.12)	(1.98)
Shareholder Protection	0.013	0.018	0.033	-0.023	-0.027
	(0.13)	(0.18)	(0.34)	(-0.22)	(-0.26)
Rule of Law	-0.227***	-0.233***	-0.216***	-0.243***	-0.257***
	(-3.06)	(-3.31)	(-2.93)	(-3.38)	(-3.49)
GDP (log)	0.496***	0.478***	0.472***	0.273	0.238
	(3.49)	(3.26)	(3.27)	(1.65)	(1.31)
GDP Growth	6.984	7.405	7.359	7.213	7.692
	(1.42)	(1.51)	(1.50)	(1.46)	(1.57)
# of total listed firms (log)	-0.090	-0.036	-0.114	-0.080	0.010
	(-0.52)	(-0.19)	(-0.67)	(-0.47)	(0.04)
Trade (% of GDP)	0.003	0.004*	0.004**	0.000	0.002
	(1.53)	(1.93)	(2.15)	(0.02)	(0.55)
Total #Acq (log)	0.977***	0.969***	1.020***	1.066***	1.043***
	(4.35)	(4.23)	(4.68)	(4.85)	(4.34)
Stock Market Cap/GDP	-0.001*	-0.002**	-0.002**	0.000	0.000
	(-1.75)	(-2.27)	(-2.16)	(0.38)	(0.04)
Exchange rate	0.000	0.000	0.000	0.000	0.000
	(0.24)	(0.60)	(0.85)	(0.55)	(0.67)
Tariff rate	-0.066*	-0.059*	-0.046	-0.040	-0.037
	(-1.84)	(-1.76)	(-1.30)	(-1.23)	(-1.09)
NAFTA	0.573**	0.664**	0.788**	0.862***	0.931***
	(2.44)	(2.35)	(2.72)	(3.62)	(3.29)
EU	0.587*	0.605*	0.691**	0.933***	0.944***
	(1.74)	(1.77)	(2.15)	(2.87)	(2.90)
Constant	-8.650**	-8.917**	-8.649**	-3.189	-3.141
	(-2.33)	(-2.34)	(-2.30)	(-0.73)	(-0.68)
Observations	309	309	309	309	309
R-squared	0.726	0.727	0.728	0.735	0.736

Appendix B3. Religiosity and Cash Payment: Additional Controls

This table presents the relationship between religiosity of the acquirer's country and the payment type in cross-border deals, with additional control variables. Variable definitions can be found in Appendix A. All regressions include year and industry fixed effects. Standard errors are clustered at the country level. T-statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5%, and 10%, respectively.

	(1)	(2)	(3)	(4)	(5)
Dep. Var.:	Percentage Cash				
Religiosity Acq	-8.116***	-8.121***	-8.131***	-7.595***	-7.397***
	(-3.47)	(-3.41)	(-3.26)	(-3.25)	(-3.03)
Religiosity Target	9.696	9.710	9.710	10.230	10.394
	(1.00)	(0.99)	(0.99)	(1.06)	(1.07)
Protestant		-0.027			2.302
		(-0.02)			(0.80)
Catholics			0.041		2.259
			(0.03)		(0.78)
Buddhist				1.909	3.976
				(1.34)	(1.24)
UAI	0.062	0.062	0.062	0.059	0.058
	(1.56)	(1.48)	(1.42)	(1.50)	(1.39)
Size	-0.874	-0.874	-0.873	-0.875	-0.839
	(-0.90)	(-0.90)	(-0.91)	(-0.90)	(-0.88)
Hostile	4.156**	4.154**	4.154**	4.169**	4.177**
	(2.18)	(2.19)	(2.20)	(2.20)	(2.22)
Assets (Acquirer)	0.299	0.299	0.303	0.162	0.194
	(0.72)	(0.72)	(0.73)	(0.38)	(0.46)
ROA (Acquirer)	-3.956	-3.953	-3.954	-3.875	-3.935
	(-0.69)	(-0.69)	(-0.69)	(-0.70)	(-0.69)
Leverage (Acquirer)	4.447***	4.447***	4.444***	4.630***	4.674***
	(3.12)	(3.11)	(3.12)	(3.24)	(3.22)
Liquidity (Acquirer)	-0.289***	-0.289***	-0.290***	-0.286***	-0.291***
	(-4.65)	(-4.67)	(-4.50)	(-4.52)	(-4.45)
R&D (Acquirer)	-139.350***	-139.127***	-139.170***	-131.202***	-131.445***
	(-3.06)	(-3.04)	(-3.10)	(-2.89)	(-3.02)
Assets (Target)	-1.896**	-1.896**	-1.897**	-1.886**	-1.944***
	(-2.60)	(-2.60)	(-2.69)	(-2.60)	(-2.80)
ROA (Target)	-10.315***	-10.318***	-10.319***	-10.291***	-10.250***
	(-3.63)	(-3.57)	(-3.59)	(-3.59)	(-3.49)
Leverage (Target)	0.940	0.939	0.940	0.905	0.944
	(0.86)	(0.85)	(0.86)	(0.83)	(0.84)
Liquidity (Target)	-0.055	-0.055	-0.055	-0.055	-0.056
	(-0.48)	(-0.48)	(-0.48)	(-0.48)	(-0.49)
R&D (Target)	76.366	76.403	76.418	79.083	81.693
	(0.83)	(0.84)	(0.84)	(0.87)	(0.90)
Legal (Target)	2.966	2.968	2.966	3.078	2.990
	(1.35)	(1.35)	(1.35)	(1.42)	(1.35)
Shareholder Protection (Target)	1.084	1.086	1.085	1.141	1.118
	(1.16)	(1.16)	(1.15)	(1.22)	(1.20)
Rule of Law (Target)	-0.578	-0.577	-0.576	-0.597	-0.551
	(-1.14)	(-1.15)	(-1.13)	(-1.20)	(-1.08)
Mandatory (Target)	10.877	10.883	10.888	10.973	11.183
	(1.36)	(1.36)	(1.35)	(1.38)	(1.38)
Same Industry	-3.822**	-3.822**	-3.823**	-3.799**	-3.800**

	(-2.73)	(-2.73)	(-2.71)	(-2.70)	(-2.68)
Same Language	2.749	2.744	2.740	2.695	2.616
	(1.24)	(1.17)	(1.19)	(1.23)	(1.15)
Same Religion	1.940	1.950	1.949	2.149	1.947
	(1.45)	(1.23)	(1.40)	(1.55)	(1.22)
Same Legal	-3.889*	-3.886*	-3.877*	-3.983*	-3.723*
	(-1.98)	(-1.92)	(-1.84)	(-2.02)	(-1.80)
Geo Distance	1.843***	1.842***	1.846***	1.756***	1.855***
	(3.14)	(3.15)	(3.06)	(2.99)	(3.04)
GDP, log (Target)	-0.920	-0.920	-0.920	-0.951	-0.939
	(-0.76)	(-0.77)	(-0.77)	(-0.79)	(-0.78)
GDP Growth (Target)	-45.734	-45.705	-45.651	-47.942	-48.174
	(-0.70)	(-0.70)	(-0.70)	(-0.74)	(-0.74)
GDP, log (Acquirer)	-0.007	-0.003	-0.001	-0.106	-0.221
	(-0.01)	(-0.00)	(-0.00)	(-0.15)	(-0.31)
GDP Growth (Acquirer)	20.414	20.405	20.513	22.611	31.224
	(0.53)	(0.53)	(0.55)	(0.58)	(0.79)
Female % (Acquirer)	-0.107	-0.107	-0.107	0.127	0.336
	(-0.20)	(-0.20)	(-0.20)	(0.21)	(0.40)
Female % (Target)	0.964	0.966	0.965	1.002	0.993
	(0.85)	(0.84)	(0.84)	(0.87)	(0.87)
Education (Acquirer)	-0.255	-0.255	-0.255	-0.235	-0.214
	(-0.67)	(-0.67)	(-0.67)	(-0.61)	(-0.55)
Education (Target)	0.787***	0.788***	0.787***	0.798***	0.788***
	(3.29)	(3.28)	(3.29)	(3.32)	(3.26)
Constant	2.916	2.761	2.634	-6.007	-17.993
	(0.04)	(0.03)	(0.03)	(-0.07)	(-0.20)
Year dummies	Yes	Yes	Yes	Yes	Yes
Acquirer industry dummies	Yes	Yes	Yes	Yes	Yes
Target industry dummies	Yes	Yes	Yes	Yes	Yes
Observations	1,110	1,110	1,110	1,110	1,110
R-squared	0.204	0.204	0.204	0.205	0.205

Appendix B4. Religiosity and Takeover Premium: Additional Controls

This table presents the relationship between religiosity of the acquirer's country and the takeover premium in cross border deals, with additional control variables. Variable definitions can be found in Appendix A. All regressions include year and industry fixed effects. Standard errors are clustered at the country level. T-statistics are reported in parentheses. ***, ** and * indicate significance at 1%, 5%, and 10%, respectively.

	(1)	(2)	(3)	(4)	(5)
Dep. Var.			Premium		
Religiosity Acq	-0.256*	-0.285**	-0.293**	-0.245*	-0.268*
	(-1.88)	(-2.19)	(-2.20)	(-1.71)	(-1.93)
Religiosity Target	-0.064	-0.015	-0.031	-0.054	0.004
	(-0.26)	(-0.06)	(-0.12)	(-0.22)	(0.01)
Protestant		-0.108			0.036
		(-1.48)			(0.34)
Catholics			0.104**		0.158*
			(2.13)		(1.96)
Buddhist				0.047	0.152
				(0.43)	(1.47)
UAI	0.001	-0.000	-0.000	0.001	-0.001
	(0.80)	(-0.31)	(-0.28)	(0.73)	(-0.48)
Deal Size	-0.092***	-0.091***	-0.089***	-0.092***	-0.088***
	(-2.96)	(-2.87)	(-2.81)	(-2.96)	(-2.75)
Hostile	0.111*	0.106*	0.107*	0.111*	0.108*
	(1.81)	(1.71)	(1.74)	(1.81)	(1.72)
Assets (Acquirer)	0.012	0.013	0.021*	0.009	0.015
	(1.15)	(1.31)	(1.77)	(0.76)	(1.17)
ROA (Acquirer)	0.051	0.063	0.055	0.054	0.064
	(0.41)	(0.52)	(0.49)	(0.43)	(0.55)
Leverage (Acquirer)	-0.033	-0.033	-0.039	-0.030	-0.032
	(-0.80)	(-0.79)	(-0.86)	(-0.75)	(-0.76)
Liquidity (Acquirer)	0.002	0.001	0.001	0.002	0.001
	(0.53)	(0.44)	(0.37)	(0.54)	(0.37)
R&D (Acquirer)	1.370	2.348	2.029	1.556	2.645
	(0.86)	(1.34)	(1.31)	(0.91)	(1.54)
Assets (Target)	0.019	0.018	0.016	0.019	0.014
	(0.67)	(0.61)	(0.52)	(0.67)	(0.48)
ROA (Target)	0.310**	0.302*	0.311**	0.309**	0.311**
	(2.08)	(2.03)	(2.09)	(2.07)	(2.05)
Leverage (Target)	-0.019	-0.022	-0.019	-0.019	-0.021
	(-0.62)	(-0.72)	(-0.63)	(-0.63)	(-0.69)
Liquidity (Target)	0.001	0.001	0.001	0.001	0.001
	(0.31)	(0.35)	(0.30)	(0.32)	(0.31)
R&D (Target)	4.775	4.862	4.965*	4.814	5.161*
	(1.62)	(1.69)	(1.72)	(1.63)	(1.78)
Legal (Target)	-0.133	-0.122	-0.131	-0.130	-0.125
	(-1.05)	(-0.95)	(-1.05)	(-1.03)	(-0.99)
Shareholder Protection (Target)	0.035	0.041	0.039	0.036	0.043
	(1.09)	(1.28)	(1.21)	(1.13)	(1.31)
Rule of Law (Target)	0.017	0.019	0.021	0.016	0.021
	(0.49)	(0.53)	(0.61)	(0.47)	(0.60)

Mandatory (Target)	-0.086	-0.066	-0.060	-0.085	-0.048
	(-0.39)	(-0.30)	(-0.27)	(-0.38)	(-0.22)
Same Industry	-0.002	-0.004	-0.004	-0.002	-0.004
	(-0.06)	(-0.09)	(-0.11)	(-0.05)	(-0.10)
Same Language	0.007	-0.011	-0.008	0.005	-0.017
	(0.11)	(-0.18)	(-0.13)	(0.08)	(-0.28)
Same Religion	-0.027	0.012	-0.009	-0.022	0.004
	(-0.59)	(0.19)	(-0.18)	(-0.43)	(0.06)
Same Legal	-0.033	-0.025	-0.011	-0.035	-0.007
	(-0.49)	(-0.37)	(-0.15)	(-0.50)	(-0.10)
Geo Distance	-0.008	-0.008	0.000	-0.010	-0.002
	(-0.44)	(-0.45)	(0.01)	(-0.49)	(-0.08)
GDP, log (Target)	-0.076	-0.078	-0.078	-0.076	-0.080
	(-1.37)	(-1.41)	(-1.40)	(-1.38)	(-1.44)
GDP Growth (Target)	-3.125*	-3.111*	-3.197*	-3.161*	-3.355*
	(-1.81)	(-1.82)	(-1.89)	(-1.78)	(-1.90)
GDP, log (Acquirer)	0.011	0.024	0.022	0.009	0.016
	(0.63)	(1.22)	(1.22)	(0.47)	(0.77)
GDP Growth (Acquirer)	0.602	0.612	0.776	0.647	1.009
	(0.46)	(0.46)	(0.60)	(0.48)	(0.76)
Female % (Acquirer)	0.002	0.005	0.002	0.008	0.020
	(0.07)	(0.19)	(0.07)	(0.24)	(0.60)
Female % (Target)	-0.039	-0.034	-0.037	-0.038	-0.035
	(-0.61)	(-0.52)	(-0.57)	(-0.60)	(-0.53)
Education (Acquirer)	0.020*	0.020**	0.020*	0.020**	0.021**
	(2.02)	(2.06)	(2.03)	(2.05)	(2.16)
Education (Target)	-0.001	-0.000	-0.001	-0.001	-0.001
	(-0.06)	(-0.02)	(-0.06)	(-0.05)	(-0.04)
Constant	6.745*	6.025*	6.142	6.507*	5.301
	(1.93)	(1.75)	(1.68)	(1.92)	(1.54)
Year dummies	Yes	Yes	Yes	Yes	Yes
Acquirer industry dummies	Yes	Yes	Yes	Yes	Yes
Target industry dummies	Yes	Yes	Yes	Yes	Yes
Observations	1,397	1,397	1,397	1,397	1,397
R-squared	0.126	0.128	0.128	0.126	0.129