Market Reactions When Firms from Less Developed Countries Take Over Firms in More Developed Countries: Analysis of Countries by Four Levels of Income

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Abstract

Title: Market Reactions When Firms from Less Developed Countries Take Over Firms in More Developed Countries: Analysis of Countries by Four Levels of Income

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Cross-border mergers and acquisitions (M&As) are becoming increasingly prevalent in the worldwide M&A activity, as companies seek to expand their operations, access new markets, and achieve competitive advantage. However, the existing research on M&As has primarily focused on domestic deals or is limited to public or US-based companies. This paper aims to address this gap by examining the short-term market reactions when firms from less developed countries acquire firms in more developed countries. The study sample categorizes bidders and targets based on their country's income level, comprising 1,216 deals announced between 1987 and 2022. Empirical evidence strongly suggests that these transactions have a positive impact on cumulative abnormal returns (CARs) of acquirers. This dissertation also investigates whether various factors such as cultural distance, geographical distance, the use of financial advisors, the institutional conditions of the home country, and the degree of innovation of the host country explain bidders' returns. The results show that cultural distance, as measured by the composite cultural index (CDI), is negatively associated with CARs. The degree of government effectiveness of the home country and the R&D spending relative to the GDP of the host country also have a negative impact on CARs, which contradicts prior literature. Nevertheless, as most results are mixed, the research cannot identify with certainty the factors that drive the positive CARs observed, highlighting their complexity.

Keywords: Cross-border mergers and acquisitions, short-term market reactions, Lower-Middle income level countries, Upper-Middle income level countries, High income level countries, event study, value creation

Resumo

Título: Market Reactions When Firms from Less Developed Countries Take Over Firms in More Developed Countries: Analysis of Countries by Four Levels of Income

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As fusões e aquisições (F&A) transfronteiriças estão a tornar-se cada vez mais predominantes na atividade de F&A a nível mundial, uma vez que as empresas procuram expandir as suas operações, aceder a novos mercados e obter vantagens competitivas. No entanto, a literatura existente sobre F&A tem-se centrado principalmente em transações nacionais ou limitado a empresas públicas ou sediadas nos EUA. O presente documento visa colmatar esta lacuna, analisando as reações do mercado a curto prazo quando empresas de países menos desenvolvidos adquirem empresas de países mais desenvolvidos. A amostra do estudo categoriza adquirentes e adquiridos com base no nível de rendimento do seu país, compreendendo 1.216 transações anunciadas entre 1987 e 2022. A evidência empírica sugere fortemente que estas transações têm um impacto positivo nas *cumulative abnormal returns* (CARs) dos adquirentes. A dissertação também investiga se fatores como a distância cultural, a distância geográfica, a utilização de consultores financeiros, as condições institucionais do país de origem e o grau de inovação do país recetor, explicam os retornos dos adquirentes. Os resultados mostram que a distância cultural, medida pelo índice cultural composto (CDI), está negativamente associada às CARs. O grau de eficácia do governo do país de origem e a despesa em I&D em relação ao PIB do país recetor também têm um impacto negativo nas CARs, o que contradiz a presente literatura. No entanto, como a maioria dos resultados são divergentes, a investigação não consegue identificar com certeza os fatores que determinam as CARs positivas observadas, realçando a sua complexidade.

Palavras-chave: Fusões e aquisições transfronteiriças, reações do mercado a curto prazo, países de rendimento médio-baixo, países de rendimento médio-alto, países de rendimento alto, estudo de eventos, criação de valor

Résumé

Titre: Market Reactions When Firms from Less Developed Countries Take Over Firms in More Developed Countries: Analysis of Countries by Four Levels of Income

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Les fusions et acquisitions (F&A) transfrontalières deviennent progressivement courantes dans l'activité mondiale de F&A, alors que les entreprises cherchent à étendre leurs activités, accéder à de nouveaux marchés et obtenir un avantage concurrentiel. Toutefois, les recherches existantes sur les F&A se sont principalement concentrées sur les transactions nationales ou se sont limitées aux entreprises publiques ou basées aux États-Unis. Ce document vise à combler cette lacune en examinant les réactions à court terme du marché lorsque des entreprises de pays moins développés acquièrent des entreprises de pays plus développés. L'échantillon de l'étude classe les acquéreurs et leurs cibles en fonction du niveau de revenu de leur pays, comprenant 1,216 transactions annoncées entre 1987 et 2022. Les preuves empiriques suggèrent fortement que ces transactions ont un impact positif sur les *cumulative abnormal returns* (CARs) des acquéreurs. Cette thèse étudie également si les facteurs tels que la distance culturelle, la distance géographique, l'utilisation des conseillers financiers, les conditions institutionnelles du pays d'origine et le degré d'innovation du pays d'accueil expliquent les rendements des acquéreurs. Les résultats montrent que la distance culturelle, mesurée par l'indice culturel composite (CDI), est négativement associée aux CARs. Le degré d'efficacité gouvernementale du pays d'origine et les dépenses de R&D par rapport au PIB du pays d'accueil ont également un impact négatif sur les CARs, ce qui contredit la littérature actuelle. Cependant, comme la plupart des résultats sont divergents, la recherche ne peut pas identifier avec certitude les facteurs à l'origine des CARs positifs observés, soulignant leur complexité.

Mots-clés: Fusions et acquisitions transfrontalières, réactions à court terme du marché, pays à revenu moyen inférieur, pays à revenu moyen supérieur, pays à revenu élevé, étude d'événements, création de valeur

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1. Introduction

In today's interconnected world, cross-border mergers and acquisitions (M&As) have become increasingly popular, with companies aiming to expand their operations, access new markets, and gain a competitive advantage. Global foreign direct investment (FDI) flows have increased by more than 670% since 1990, reaching virtually $1.6 trillion in 2021 (UNCTAD, 2022). Among these flows, cross-border mergers and acquisitions account for a significant share, with more than 9,000 deals worth around $1.6 trillion in 2022 (Irwin-Hunt, 2023).

There has been a growing trend of bidders from less developed countries targeting firms from more developed countries to acquire technological know-how, managerial expertise, and access to advanced markets. An illustration of this is one of the biggest cross-border acquisitions carried out by a Chinese company, Lenovo, which acquired IBM's Personal Computer (PC) division for $1.75 billion in 2005, becoming the third largest PC maker worldwide (NBC News, 2005). Similarly, in 2008, Tata Motors, one of India's largest automobile companies, purchased the Jaguar and Land Rover (UK) businesses from American firm Ford Motor Company for $2.3 billion (Tata Motors Limited, 2008). More recently, in 2022, Turkish company Getir acquired German company Gorillas, its grocery app rival, for $1.2 billion (Bradshaw, 2022).

However, despite the increasing trend of international transactions, most research on mergers and acquisitions focuses on domestic deals. Additionally, existing studies on mergers between firms from different countries are limited to public or US-based companies, which do not represent the entire population of cross-merger M&As. Nicholson and Salaber (2013) represent a select few scholars who endeavor to address this research gap, concluding that, when targeting developed economies, transactions generate value for Chinese and Indian firms.

To enrich the current body of literature, the primary objective of this research is to investigate the short-term market reactions when firms from less developed countries take over firms in more developed countries. Secondarily, it aims to discern any potential factors that may explain bidders' returns. Given that these deals entail companies from distinct economic, cultural, and institutional backgrounds, they present particularities that can markedly impact deal outcomes, making it crucial to understand the dynamics of such transactions. Moreover, understanding the factors that influence the positive or negative investors' reaction to these deals is essential for firms wishing to expand internationally and policymakers aiming to foster economic growth and development.

Furthermore, the paper distinguishes countries based on their income level, as defined by the World Bank. Particularly, it classifies acquirers as belonging to Low, Lower-Middle and Upper-Middle income levels, while targets are defined as firms from High income level countries. Additionally, this thesis uses an event study methodology to compute bidders' cumulative abnormal returns within three-day and five-day event windows, using an estimation window starting 244 days and ending 6 days before the announcement date.

The study sample comprises 1,216 deals from 1987 to 2022, involving more than 25 acquirer nations. The results reveal that such cross-border M&As have an overall favorable effect on the short-term stock price of bidders. To explain this positive relationship, the paper delves into five dimensions: (i) cultural distance; (ii) geographical distance; (iii) financial advisors; (iv) institutional conditions of the home country; and (v) innovation in the host country. The analysis suggests that cultural distance, institutional conditions of the home country, and innovation in the host country are associated with cumulative abnormal returns. However, the paper cannot draw any conclusive inferences regarding the influence of geographical distance and financial advisors.

To ensure the reliability of the results, the study undergoes two robustness tests, which involve addressing the possible sampling bias and employing an alternative estimation window. The paper reveals that the finding of the positive correlation between cross-border deals' announcements and bidders' cumulative abnormal returns is robust. However, due to the mixed results in some dimensions, the investigation cannot definitively identify the factors that underpin this favorable correlation. Further research is imperative to attain more conclusive outcomes and overcome the limitations of the study.

The paper is organized into nine distinct sections. Section 2 offers a comprehensive review of the relevant literature, while the following section details the research methods and data sources employed in the study. Section 4 highlights the most significant findings related to cumulative abnormal returns and what drives them. To test the robustness of the results, Section 5 presents additional analyses. Section 6 outlines the study's limitations and identifies areas for future research. Finally, Section 7 provides a conclusion summarizing the paper's key outcomes, while the references and appendixes can be found in Sections 8 and 9, respectively.

2. Literature Review

Mergers and acquisitions (M&A) have emerged as a widely adopted business strategy for companies seeking growth and expansion. Extensive research has been conducted over the years to analyze the various aspects of M&A transactions. Recently, cross-border deals have gained relevance as a policy adopted by firms looking to increase their global presence and competitiveness. With the intensification of globalization and firms seeking to enter new markets, cross-border M&A transactions pose distinct challenges and opportunities that require consideration. This literature review aims to present a comprehensive summary of the existing research on domestic and cross-border M&A, with a particular emphasis on their effect on financial performance. The analysis draws on prominent journals in this field to synthesize the main findings.

2.1. Mergers and Acquisitions

Despite decades of research and analysis, the impact of M&A transactions on a company's returns remains a highly debated topic among scholars. While some studies suggest that mergers and acquisitions can result in negative effects on a company's market capitalization, others find that such deals can have positive effects, particularly in certain market conditions.

Dodd's (1980) research indicates that regardless of the completion of a deal, bidder firms will see a negative impact on their market capitalization. According to his results, both completed and canceled merger bids translate into significant negative abnormal returns for potential acquirers, with losses of 7.12% and 5.50%, respectively, over their duration. Agrawal, Jaffe, and Mandelker's (1992) findings also suggest that acquirers can expect to lose approximately 10% over the five years following a deal.

Similarly, Moeller, Schlingemann, and Stulz's (2005) study reveals that purchasing companies experienced an aggregate loss of $216 billion over the three days surrounding the acquisition announcement date, with most of these losses arising between 1998 and 2001. In contrast, gains were evident between 1991 and 1997 but were more than offset by losses during the latter period, amounting to more than 50 times the $4 billion lost between 1980 and 1990.

Nevertheless, Bouwman, Fuller, and Nain (2009) show that the performance of bidder firms can vary depending on the market conditions in which they operate. During booming markets, bidder firms may experience higher stock price reactions from M&A deals in the short-run, but

lower long-run performance compared to those acquiring during depressed markets. This long-run underperformance is thought to be due to managerial herding.

On the other hand, Alexandridis, Antypas, and Travlos (2017) suggest that acquiring firms have benefitted from M&A transactions in the post-2009 period. The study finds that bidders present a 1.05% abnormal return surrounding the acquisition announcement date, corresponding to a $30 million gain, which may be attributed to the superior strategic fit and increased synergies resulting from these deals. Additionally, the favorable performance holds for both cash-financed and stock-financed transactions, which contrasts with most existing literature that shows value-destroying stock-for-stock mergers for acquirers.

Finally, Malmendier, Moretti, and Peters (2018) provide insight into the long-run performance of winners and losers of close contests. The study finds that although bidders present similar returns before the deal contests, losers outperform winners by 24% to 37% over the following three years.

2.2. Cross-border Mergers and Acquisitions

The world has been witnessing an upsurge in cross-border mergers and acquisitions, yet the academic literature on this topic has not kept pace with this trend. However, researchers have made efforts to address this gap, and their findings shed light on the impact of such transactions on bidder firms.

Chari, Ouimet, and Tesar (2010) contribute to this literature by comparing the short-term value of control in developed and emerging economies. Their study reveals that acquiring the majority of emerging-market targets has a positive impact on the stock price reactions of developed-market acquirers, with a 1.16% rise in stock prices over a three-day event window. This finding contrasts with the majority of existing literature on domestic transactions.

Similarly, Frésard, Hege, and Phillips (2017) examine the impact of industry expertise on horizontal cross-border negotiations. They found that while acquirers are willing to pay more to gain control of less specialized foreign targets, their abnormal returns also significantly increase when there are more discrepancies in industry specialization.

Finally, Nicholson and Salaber (2013) analyze cross-border M&A from China and India, two emerging economies. Their study reveals that when targeting developed economies, transactions generate value for Chinese and Indian firms at rates of 5.37% and 2.18%,

respectively. Chinese companies profit more from acquiring manufacturing enterprises, while Indian investors gain more when targeting countries with a similar culture.

Taken together, the literature suggests that cross-border transactions can be beneficial for the bidders, regardless of whether they are from less or more developed countries. Therefore, this paper expects to find a positive relation between cross-border deals between acquirers of less developed countries and targets of more developed countries and bidders' cumulative abnormal returns.

Null Hypothesis (H0): Cross-border M&As between acquirers from less developed countries and targets in more developed countries have no significant influence on stock prices of bidders (cumulative abnormal returns – CARs - are equal to 0).

Hypothesis 1 (H1): Cross-border M&As between acquirers from less developed countries and targets in more developed countries have a significant influence on stock prices of bidders (CARs are different than 0).

2.2.1. Potential Factors Influencing Cross-border Mergers and Acquisitions

Traditionally, studies on mergers and acquisitions have primarily focused on factors specific to firms and deals. However, given the growing importance of cross-border transactions in the global economy, there has been a shift towards adopting a macroeconomic perspective that considers country-level characteristics. This section delves into some of the potential factors that have garnered attention and are believed to impact cross-border M&A.

2.2.1.1. Cultural Distance

Previous research, such as the study conducted by Doukas and Travlos (1988), indicates that companies experience greater benefits when expanding their operations to new geographical and industry areas. This finding is consistent with the positive-multinational-network hypothesis, which posits that a firm's market value increases in response to its multinational expansion.

Moreover, Aybar and Ficici (2009) report that investors do not perceive value-creative strategic benefits in acquiring culturally proximate targets. Additionally, Erel, Liao, and Weisbach's (2012) analysis fails to establish any significant relation between sharing a common language or religion and the probability of cross-border deals.

Nevertheless, an escalating body of literature has revealed the advantages of cultural proximity. In fact, Ahern, Daminelli, and Fracassi (2015) provide evidence that cross-border mergers are more likely to occur between countries that share a common primary religion or have the same primary language. Additionally, they find a strong negative correlation between the Hofstede cultural measures and the volume of cross-border mergers, indicating that an increased cultural distance leads to fewer cross-border deals.

Despite these contrasting findings, the literature suggests that cultural proximity can play a significant role in cross-border M&As. As such, it is hypothesized in this paper that cultural distance will exert a negative impact on bidders' cumulative abnormal returns.

Hypothesis 2 (H2): Cultural distance is negatively associated with bidders' cumulative abnormal returns.

2.2.1.2. Geographical Distance

The research conducted by Erel, Liao, and Weisbach (2012) investigates the determinants of cross-border transactions using a sample of 56,978 worldwide deals between 1990 and 2007. The authors conclude that location, currency movements, and the relative stock market performance between two countries influence the likelihood of purchasing a foreign company. More importantly, they infer that bidders tend to acquire firms from nearby countries.

Furthermore, Ahern, Daminelli, and Fracassi (2015) provide complementary evidence that cross-border mergers are more likely to occur between countries that are in closer geographical proximity.

In light of the aforementioned literature, this paper posits that geographical distance will negatively impact bidders' cumulative abnormal returns.

Hypothesis 3 (H3): Geographical distance is negatively associated with bidders' cumulative abnormal returns.

2.2.1.3. Financial Advisors

Extensive research has been conducted on the quality of services offered by financial advisors in M&A transactions. Two primary hypotheses have been posited regarding this matter: the better merger hypothesis and the skilled negotiation hypothesis. The former pertains to the capability to identify potential acquisition targets that allow for greater synergies, taking

advantage of superior expertise and economies of scale, thus reducing bidders' search costs. Conversely, the latter hypothesis refers to the skill of offering the minimum acquisition premium through effective negotiation, acting in the best interests of the acquirer.

Bowers and Miller (1990) provide evidence that prestigious advisors have the capability to identify deals that generate higher total synergies. Nonetheless, they conclude that due to the competitive market for target firms, no distinct bargaining power between advisors is observed.

Servaes and Zenner (1996) are not able to determine a significant correlation between abnormal returns over the announcement date and the use of a financial advisor, regardless of their reputation. Nevertheless, they observe that bidders tend to seek assistance from advisors when they lack prior experience and when the transaction is perceived to be complex.

Additionally, Rau (2000) presents corroborating evidence for the deal completion hypothesis, which proposes that investment banks prioritize closing deals rather than exclusively pursuing superior deals, as a larger portion of their fees is contingent upon deal completion. His findings suggest that first-tier investment banks have a higher proportion of completed deals. However, this does not necessarily result in greater returns, only for the tender-offer sub-sample.

Despite the mixed results in the literature, Kale, Kini, and Ryan (2003) provide empirical support for the better merger and skilled negotiation hypotheses. Specifically, they find that while top-tier advisors are more likely to facilitate deal completion (consistent with Rau (2000)), advisors with stronger reputations are also more likely to discourage bidders from pursuing potentially unprofitable acquisitions. Furthermore, the authors demonstrate that both the absolute wealth gain and the share of acquisition wealth gain accruing to the acquirer are positively related to the reputation of the financial advisor.

Nonetheless, Ismail (2010) finds contradicting evidence, revealing an inverse correlation between the returns of the acquirer and the reputation of the financial advisor they employ.

Golubov, Petmezas, and Travlos (2012) also investigate the association between the employment of top-tier financial advisors by bidder firms and the cumulative abnormal returns earned during the announcement period. Their results reveal a significant positive relationship between the two variables, but only when analyzing public targets.

Based on prior research, it is anticipated that premium financial advisors would have a substantial impact on the performance of bidders during the announcement period. Since this

paper focuses on the analysis of cross-border deals between firms originating from countries with different income levels, the transactional complexities are expected to be amplified. Thus, financial advisors are anticipated to play an even more crucial role in ensuring successful and advantageous deals.

Hypothesis 4 (H4): Employing top-tier financial advisors is positively associated with bidders' cumulative abnormal returns.

2.2.1.4. Institutional Conditions

In less developed countries, institutional challenges may include institutional voids and informal institutional hazards. Institutional voids may refer to the lack of legal protection for intellectual property rights, poor enforcement of commercial laws, and nontransparent judicial and litigation systems. Informal institutional hazards include public corruption and tax evasion. Research by Witt and Lewin (2007) suggests that firms may invest abroad due to a perceived misalignment between their needs and institutional conditions in their home country. In addition, an inefficient institutional environment at home, including regional protectionism, insufficient protection of intellectual property rights, and frequent governmental interference, may hinder firms from developing and maintaining valuable and inimitable ownership advantages (Child and Rodrigues, 2005). Consequently, firms may turn to acquiring targets from more developed countries where institutional challenges are weaker or absent. In fact, Luo and Wang (2012) demonstrate that as the degree of perceived institutional hardship intensifies, multinationals from less developed countries tend to invest abroad on a significant scale, particularly in more developed countries.

Moreover, Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998) discover that countries following the common-law tradition provide greater protection for investors compared to countries following the civil-law tradition, particularly the French-civil-law tradition. Their findings support the notion that shareholders in diverse legal jurisdictions have access to significantly different rights. They also examine the quality of law enforcement and find that German-civil-law and Scandinavian countries have the best quality of law enforcement, while French-civil-law countries are the worst at enforcing contracts.

Building upon the previous research, Rossi and Volpin (2004) examine the factors driving mergers and acquisitions by specifically investigating variations in legal and regulatory frameworks across nations. To conduct their analysis, the authors use a dataset of M&A

transactions announced during the 1990s and completed by the end of 2002, including firms from 49 major countries. According to their findings, acquirers in cross-border transactions generally possess superior investor protection compared to targets. This observation implies that firms opt to be acquired by foreign companies as a means of escaping suboptimal governance regimes.

However, Ahern, Daminelli, and Fracassi (2015) provide evidence that cross-border mergers are more likely to occur between countries that share a common origin of their legal systems.

Based on prior research, it is anticipated that worse institutional conditions in the home country will have a substantial impact on the performance of bidders during the announcement period. Additionally, the origin of the legal systems is expected to influence bidders' returns.

Hypothesis 5 (H5): Institutional hardship in the home country is positively associated with bidders' cumulative abnormal returns.

Hypothesis 6 (H6): Acquiring targets from civil-law countries is positively associated with cumulative abnormal returns of bidders from common-law countries.

Hypothesis 7 (H7): Sharing a common legal origin is positively associated with bidders' cumulative abnormal returns.

2.2.1.5. Innovation

Companies from less developed economies are inclined to pursue mergers and acquisitions to acquire intangible resources and innovation-based knowledge (Luo and Tung, 2007). It has been contended that strategic assets, including superior marketing expertise, product differentiation, patent-protected technology, and managerial know-how, constitute a significant set of strategic motivations for firms in less developed countries to engage in international acquisitions, especially in advanced nations. More precisely, Rabbiosi, Elia, and Bertoni (2012) observe that firms from economies with a scarcity of market and knowledge-based resources in their home country tend to pursue incremental, related acquisitions.

Additionally, Chen, Li, and Shapiro (2012) differentiate markets based on their level of technological resources, as indicated by research and development (R&D) investment and R&D employment. Their findings reveal that firms from less developed countries that have

subsidiaries in technologically wealthier markets demonstrate stronger technological capabilities in their home country.

Consequently, drawing on the abovementioned literature, corporations aim to obtain targets in countries known for their innovative capacity to capitalize on the benefits of these innovations. Hence, the present study posits that acquirers who purchase firms from highly innovative countries are likely to yield higher returns.

Hypothesis 8 (H8): Innovation in the host country is positively associated with bidders' cumulative abnormal returns.

3. Data and Methodology

The utilization of only two terms to differentiate between countries has proven to be outdated. It is increasingly harder to divide the world into only two categories of "developing" and "developed" nations. Over the past few decades, many countries that were previously labeled as "developing" have made substantial progress and now occupy the formerly empty space between these two classifications (Rosling, 2018).

As a result, the World Economic Forum has ceased to employ the terms "developed" and "developing" in its official reports and has instead opted for a comparable four-tiered classification system since 2016 (Fernholz, 2016).

Additionally, in 2016, the World Bank published a working paper investigating a method of categorizing countries based on income. Currently, it distinguishes the world by four levels of income based on their Gross National Income (GNI) per capita in the year 2021. Specifically, countries with a GNI per capita of $1,085 or less in 2021 are categorized as Low-income. Economies with a GNI per capita between $1,086 and $4,255 are classified as Lower-Middle-income. Those with a GNI per capita between $4,256 and $13,205 are considered Upper-Middle-income. Finally, nations with a GNI per capita of $13,205 or more are categorized as High-income (The World Bank, 2023).

Hence, to circumvent the usage of the oversimplified two-fold categorization to differentiate between "developed" and "developing" countries, this paper categorizes nations into four

income levels (High, Upper-Middle, Lower-Middle, and Low) based on the World Bank's definition (Appendix 1).

The primary objective of this thesis is to examine the impact of stock prices when bidders from less developed countries acquire companies from the most developed countries. Therefore, firms from countries classified under the Low, Lower-Middle, and Upper-Middle income levels were selected as acquirers, while firms from countries in the highest income level category were identified as targets.

3.1. Sample Selection and Descriptive Analysis

Worldwide M&A deals are collected from Refinitiv Eikon's Deal Screener between January 1, 1982 and December 31, 2022. Only completed transactions between acquirers from Low, Lower-Middle and Upper-Middle income levels and targets from High levels are considered. Later, I define a merger as an acquisition of equity of at least 50%. The following information is collected: (i) the name of the firms involved in the transaction; (ii) the target's public status; (iii) the macro industry of both bidders and bidding firms; (iv) their nation and region; (v) the deal type; and (vi) the name of the bidders' financial advisor(s). For further analysis, I collect the following acquirer information from Refinitiv Eikon's Datastream: (i) return index (in USD); (ii) market value (in USD); (iii) total debt as a percentage of total assets; (iv) book value per share (in USD); and (v) common shares outstanding.

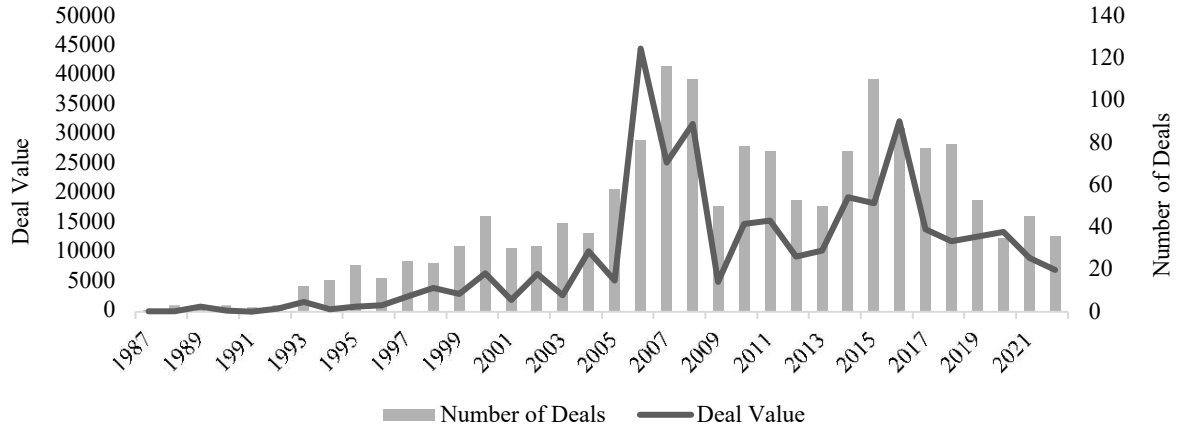
The initial dataset includes 3,513 deals. The sample is later restricted to 1,612 transactions, excluding bidders which are not publicly traded, do not present tickers, do not have their share price information available on Datastream, or do not have enough historical share price in order to compute returns. To compute abnormal returns, the sample is restricted to the period between January 1, 1987 and December 31, 2022, since the MSCI Emerging Markets Index only has information available on Datastream from that period onwards. Due to these restrictions, deals with acquirers from Low income level countries are removed from the sample. Finally, the outliers are excluded, and only observations between the 5^{th} and 95^{th} percentiles are considered. Consequently, the sample size is reduced to 1,216 transactions, involving 27 acquirer nations (10 Lower-Middle income level countries and 17 Upper-Middle income level countries) and 53 target countries.

Figure 1 illustrates the yearly evolution of the cross-border deals between 1987 and 2022 for the selected sample. The analysis reveals that developing countries' acquirers purchased more

firms in developed countries between 2006 and 2008. Notably, while the peak in the number of deals occurred in 2007, the corresponding value experienced a significant decline compared to the previous year (2006), which recorded the highest transaction valuation.

Figure 1: Evolution of cross-border deals between 1987-2022

The figure presents the yearly evolution of the cross-border M&A transactions in both value and volume (in millions of dollars), between 1987 and 2022.



Panel A of Table 1 shows the leading ten acquirer nations in descending order of the number of transactions in the sample. Notably, India executed a comparatively higher number of deals than China, despite the former's deals being considerably lower in value. Specifically, during the sample period, China concluded a nearly equivalent number of transactions as India but with significantly greater capital outlays. Furthermore, although South Africa conducted half as many deals as India, it was able to secure a higher proportion of total deal value (15% versus India's 12%). Panel B presents a similar ranking for the top ten target countries by number of deals. It can be noted that acquirers from developing countries have a clear preference for US-based targets, which account for 25% and 24% of all transactions, both in terms of number and value, respectively.

Table 1: Top 10 acquirer and target nations

This table presents the leading nations in descending order of the number of transactions from Refinitiv's Deal Screener between 1987 and 2022. Panel A illustrates the top 10 acquirer countries. Panel B highlights the top 10 target countries.

Nation	Number of Deals	% Total Deals	Deal Value (USD Mil)	% Total Value
Panel A. Top 10 Acquirer Nations sorted by number of deals				
India	328	27	30,295	12
China	299	25	73,436	30
South Africa	157	13	36,347	15
Malaysia	143	12	12,983	5
Mexico	57	5	18,040	7
Brazil	44	4	27,601	11
Thailand	33	3	10,236	4
Russian Federation	32	3	15,127	6
Philippines	29	2	2,627	1
Colombia	28	2	12,206	5
Panel B. Top 10 Target Nations sorted by number of deals				
United States of America	304	25	60,224	24
United Kingdom	143	12	19,751	8
Hong Kong	107	9	22,843	9
Singapore	104	9	11,592	5
Australia	93	8	20,103	8
Germany	46	4	6,609	3
Canada	46	4	40,506	16
Netherlands	28	2	5,682	2
Spain	27	2	3,185	1
France	26	2	3,886	2

Table 2 displays the macro industries of both acquirers (Panel A) and targets (Panel B), sorted by the number of transactions. The majority of bidders and bidding firms operate within the High Technology, Materials, and Industrials sectors, accounting for 53% and 47% of all deals, respectively. Acquirers from the Materials, Consumer Staples, and Industrials industries close higher-valued deals, comprising 34%, 12%, and 12% of total deal value, respectively. Similarly, targets from the Materials (34%), High Technology (13%), and Consumer Staples (12%) industries are purchased at a higher overall value.

Table 2: Descriptive statistics on acquirer and target macro industries

This table presents the macro industries in descending order of the number of transactions from Refinitiv's Deal Screener between 1987 and 2022. Panel A illustrates the industries of the acquirers. Panel B highlights the industries of the targets.

Macro Industry	Number of Deals	% Total Deals	Deal Value (USD Mil)	% Total Value
Panel A. Acquirer Macro Industry sorted by number of deals				
High Technology	254	21	20,698	8
Materials	214	18	83,279	34
Industrials	165	14	28,446	12
Consumer Staples	128	11	29,544	12
Financials	106	9	25,992	11
Healthcare	93	8	15,297	6
Consumer Products and Services	65	5	11,966	5
Energy and Power	57	5	17,060	7
Real Estate	46	4	5,838	2
Retail	39	3	5,426	2
Media and Entertainment	30	2	1,964	1
Telecommunications	19	2	1,378	1
Panel B. Target Macro Industry sorted by number of deals				
High Technology	226	19	31,705	13
Materials	186	15	83,623	34
Industrials	160	13	22,599	9
Financials	144	12	25,084	10
Consumer Staples	119	10	28,922	12
Consumer Products and Services	93	8	6,191	3
Healthcare	87	7	14,767	6
Energy and Power	52	4	11,544	5
Media and Entertainment	50	4	3,843	2
Real Estate	39	3	5,595	2
Retail	38	3	11,610	5
Telecommunications	22	2	1,407	1

Table 3 presents the descriptive statistics concerning acquirer (Panel A) and deal (Panel B) characteristics for the entire sample as well as for the two sub-groups of acquirers (Lower-Middle and Upper-Middle). Panel C provides further information regarding the proportion and number of deals for other qualitative criteria. The average (median) size of bidders is $4,658 million ($857 million), being relatively the same for acquirers from Lower-Middle and Upper-Middle. The mean (median) book-to-market of the entire sample is 0.07% (0.04%), with bidders from the more developed group (0.07%) presenting a significantly higher ratio than those from the less developed group (0.05%). The mean (median) leverage is 21% (18%) and does not appear to differ between the two sub-categories. For the entire sample, transactions are valued, on average, at $203 million. However, the median of the deal value is $32 million, significantly lower than the mean, indicating that most observations concern smaller-size deals. Acquirers from the more developed group ($251 million) can close greater-size transactions than those from the less developed group ($101 million). The mean and median of the relative size are 41% and 4%, respectively, once again indicating a right-skewed distribution. The relative size is relatively similar between the sub-categories. On average, bidder CARs during the 3-day event window are 1%. Acquirers from the Lower-Middle sub-category (1.2%) exhibit a similar level of benefit from a cross-border M&A as the remaining sub-category (0.9%). Overall, there are relatively few public deals, with an average of 11%, compared to private (46%) and subsidiary deals (43%). Bidders from the more developed group acquire significantly more public and subsidiary firms (13% and 46%, respectively) than those from the other group (6% and 36%, respectively). However, Lower-Middle acquirers (58%) purchase significantly more private companies than Upper-Middle (41%). On average, 37% of the deals concern acquisitions of a firm from another industry, which does not differ between the two sub-groups. Additionally, 9% of deals are considered mega deals, on average. In line with the deal value insights, bidders from the more developed group (12%) are more frequently involved in mega deals than those from the other sub-category (4%).

Table 3: Descriptive statistics on bidder and deal characteristics

This table presents the descriptive statistics for the entire sample of cross-border deals as well as for the 2 sub-groups of acquirers (Lower-Middle and Upper-Middle), between 1987 and 2022. Panels A and B provide the mean, median and number of observations of acquirer and deal characteristics, respectively. Panel C describes further information regarding the proportion and number of deals for other qualitative criteria. The p-value of the statistical tests, comparing the means of each variable between Lower-Middle and Upper-Middle sub-groups, is also presented in Panels A and B, while the p-value for the difference in proportions is displayed in Panel C.

	All Sample			Lower-Middle (1)			Upper-Middle (2)			P-Value (2 - 1)
	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean
Panel A. Bidder Characteristics										
Size (USD Mil)	4,657.63	856.59	1,215	5,023.02	612.93	388	4,486.20	938.84	827	0.53
Book-to-Market (%)	0.07	0.04	1,170	0.05	0.03	370	0.07	0.04	800	0.03
Leverage (%)	20.99	18.43	1,173	21.50	19.07	371	20.75	18.06	802	0.52
Panel B. Deal Characteristics										
Deal Value (USD Mil)	203.03	31.61	1,216	100.56	22.12	388	251.05	40.62	828	0.00
Relative Size (%)	40.59	4.27	1,215	24.22	4.21	388	48.27	4.38	827	0.21
CARs [-1, 1] (%)	1.02	0.43	1,216	1.18	0.69	388	0.94	0.38	828	0.38
Panel C. Proportion and Number of Deals										
Public Deals (%)	10.53	-	1,216	5.67	-	388	12.80	-	828	0.00
Private Deals (%)	46.38	-	1,216	57.73	-	388	41.06	-	828	0.00
Subsidiary Deals (%)	42.68	-	1,216	36.08	-	388	45.77	-	828	0.00
Diversifying Deals (%)	37.34	-	1,216	34.28	-	388	38.77	-	828	0.13
Mega Deals (%)	9.29	-	1,216	3.61	-	388	11.96	-	828	0.00

3.2. Methodology

Event studies allow researchers to examine the effects of specific events on specific variables (Brown and Warner, 1985). This paper examines the impact of the announcement date of cross-border acquisitions of firms in more developed countries on the stock price of the acquirers from less developed countries. In this paper, the computation of the cumulative abnormal returns (CARs) enables the test of hypothesis H0. It explains the gain generated by these transactions. Positive values of CARs suggest a positive effect of the acquisitions on the bidder's stock price and vice versa for negative CARs. The event study methodology is conducted following Brown and Warner (1985), thus considering an estimation window of 239 days, starting 244 days and ending 6 days prior to the announcement. The event date considered for the cross-border M&A transactions is the announcement date. After this date, other events may influence the development of the stock price, likely distorting the results. Therefore, consistent with earlier studies such as Alexandridis, Antypas, and Travlos (2017), and Golubov, Petmezas, and Travlos (2012), this paper examines event windows of three [-1, 1] and five days [-2, 2] surrounding the event date.

As extensively used in prior literature (e.g., Francis, Hasan, and Sun, 2008), this paper resorts to stock returns to capture the effects of cross-border deals on shareholders' wealth. To compute predicted returns, this paper uses the Market Model, selecting the MSCI Emerging Markets Index as the suitable benchmark since it incorporates all top 10 acquirers of the sample, except for Russia (MSCI, 2023).

In order to compute daily abnormal returns, the market model's expected return is subtracted from the actual return.

$$AR_{jt} = R_{jt} - \alpha_j - \beta_j R_{mt} \quad (1)$$

Where R_{jt} is the rate of return on bidder j over day t, and R_{mt} is the rate of return of the MSCI Emerging Markets Index. Alpha j and Beta j are ordinary least squares (OLS) estimates of the firm j's market model parameters.

This paper estimates the cross-border deal effect through the calculation of cumulative abnormal returns. Specifically, $CAR_{ij}[T_1, T_2]$ is computed using the i^{th} cross-border transaction of bidder j over the event window $[T_1, T_2]$.

(2) $$CAR_{ij}[\tau_1, \tau_2] = \sum_{s=t_i+\tau_1}^{t_i+\tau_2} AR_{js}$$

Where t_i is the announcement date for the cross-border deal i.

Furthermore, the traditional OLS regression framework is employed to evaluate how potential drivers of cumulative abnormal returns may impact them. To better assess the influence of such drivers, a set of control variables is included. This set is comprised of variables that previous studies suggest have a substantial effect on bidders' CARs: (i) size; (ii) book-to-market; (iii) leverage; (iv) relative size; (v) and diversifying deals.

According to research conducted by Moeller, Schlingemann, and Stulz (2004), there is a negative correlation between acquirer's size and its abnormal returns related to acquisition announcements. Dong, Hirshleifer, Richardson, and Teoh (2006) evidence that bidders with higher book-to-market ratios tend to have higher abnormal returns during the announcement period. However, Moeller, Schlingemann, and Stulz (2005), as well as Golubov, Petmezas, and Travlos (2012), did not find a significant relationship between the two variables for the entire sample. The empirical evidence presented by Moeller, Schlingemann, and Stulz (2005) and Maloney, McCormick, and Mitchell (1993) demonstrates that bidders with higher leverage earn greater cumulative abnormal returns over the announcement period. Golubov, Petmezas, and Travlos (2012) and Moeller, Schlingemann, and Stulz (2004) show that Relative Size is positively related to cumulative abnormal returns around the announcement period. The findings of Morck, Shleifer, and Vishny (1990) demonstrate that there is a negative reaction from investors when firms choose to diversify. In contrast, Villalonga (2004) finds that diversified firms enjoy a premium in comparison to specialized firms.

Additionally, this paper recognizes the significance of the payment method in influencing the acquirer's cumulative abnormal returns, a phenomenon well-established by previous research. For example, Masulis, Wang, and Xie (2007) find that bidders generate lower returns when paying with either stock or cash only, irrespective of the target's listing status. Nevertheless, due to the unavailability of this data, the current study does not incorporate this variable as a control measure.

Further, Capron and Shen (2007) demonstrate that bidders acquiring private firms outperform those purchasing public companies during the announcement period. Accordingly, this study

examines whether the impact of the potential drivers on CARs varies across the three different target listing statuses (public, private, and subsidiary).

4. Results

This section outlines the detailed findings of the study and tests the research questions and hypotheses against the collected data. The purpose is to provide a clear and concise summary of the key results obtained. The section is divided into two sub-sections. In the first sub-section, the analysis centers on the changes in bidders' stock prices following the announcement of a cross-border deal. In the second sub-section, the study attempts to provide an explanation for the changes observed in stock prices using five dimensions.

4.1. Cumulative abnormal returns

Table 4 reports the cumulative abnormal returns for the three-day and five-day event windows, encompassing the entire sample. The findings indicate that CARs for both time windows are statistically significant at the 1% level, thereby rejecting the null hypothesis with a significance level of 1%. In other words, cross-border deal announcements significantly affect the bidders' stock price. On average, the acquirers' stock price experiences an increase of 1.0% and 1.1% during the three and five days surrounding the announcement date, respectively. Hence, these results are consistent with the conclusions drawn by Nicholson and Salaber (2013).

Moreover, this paper analyzes the cumulative abnormal returns earned by acquirers of each income level, displayed in Table 5. For each sub-category and event window, the results are statistically significant at the 1% level. Thus, it can be concluded that cross-border deal announcements have a positive impact on the stock price of acquirers, regardless of their country origin. Nevertheless, it can be noted that bidders from the less developed group earn more than those from the more developed group when purchasing a firm from a High income level country. In fact, for the respective [-1, 1] and [-2, 2] event windows, stock prices increase 1.2% and 1.3% for the Lower-Middle group, while increasing merely 0.9% for the Upper-Middle group, on average.

Table 4: Descriptive statistics on cumulative abnormal returns

This table reports the descriptive statistics on cumulative abnormal returns during the three-day and five-day event windows, concerning cross-border deals between acquirers from Lower-Middle and Upper-Middle income level countries and targets from High income level countries, over the period ranging from 1987 to 2022. The variable % Pos. refers to the percentage of positive values. N corresponds to the number of observations. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	CARs [-1,1]	CARs [-2,2]
Mean	1.02%***	1.06%***
P-value	0.00	0.00
Median	0.43%	0.63%
% Pos.	56.74%	56.25%
Standard Deviation	0.04	0.05
Skewness	0.43	0.39
Kurtosis	3.20	3.17
Min	-8.74%	-11.13%
Max	13.89%	15.80%
N	1216	1216

Table 5: Descriptive statistics on CARs per income level

This table reports the descriptive statistics on cumulative abnormal returns during the three-day and five-day event windows over the period ranging from 1987 to 2022. The data is categorized according to the income level groups of bidders: Lower-Middle and Upper-Middle. The variable % Pos. refers to the percentage of positive values. N corresponds to the number of observations. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Lower-Middle		Upper-Middle	
	CARs [-1,1]	CARs [-2,2]	CARs [-1,1]	CARs [-2,2]
Mean	1.18%***	1.28%***	0.94%***	0.95%***
P-value	0.00	0.00	0.00	0.00
Median	0.69%	0.90%	0.38%	0.45%
% Pos.	60.57%	58.87%	54.95%	55.02%
N	388	389	828	827

Further segmenting cumulative abnormal returns, Table 6 reports returns for each sub-period throughout the sample (1987-2022). The sample period is divided into six sub-groups of six years to reflect the changes in CARs over time. For the three-day event window (Panel A), CARs of the most recent five sub-groups are statistically significant at the 5% level. Similarly, regarding Panel B, the five-day time window CARs of the sub-periods between 1999 and 2022

are statistically significant at the 1% level. It is not possible to infer about the two sub-periods between 1987 and 1998 likely due to their small sample (only 10 and 73 observations, respectively). Hence, it can be concluded that cross-border deals of more developed targets have an impact on less developed bidders' stock prices. Since the sub-periods 2005-2010 and 2017-2022 incorporate the financial crisis of 2007-08 and the covid-19 pandemic, respectively, it can be inferred that this positive effect is not affected by periods of crises or economic instability. Between 1999 and 2004, this impact was the most felt, with stock prices significantly rising 1.5% (three-day event window) and 1.7% (five-day event window), on average. Contrarily, the effect of deal announcements was the least felt between 2005 and 2010, increasing, on average, 0.6% and 0.9% for the two respective time windows.

Table 6: Descriptive statistics on CARs throughout the sample period

This table reports the descriptive statistics on cumulative abnormal returns over the period ranging from 1987 to 2022. Panel A presents CARs during the three-day event window. Panel B shows CARs during the five-day event window. The data is divided into six sub-groups of six years: 1987-1992; 1993-1998; 1999-2004; 2005-2010; 2011-2016; and 2017-2022. The variable % Pos. refers to the percentage of positive values. N corresponds to the number of observations. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Mean	P-value	Median	% Pos.	N
Panel A. Cumulative Abnormal Returns for the event window [-1,1]					
1987-1992	0.54%	0.65	0.00%	44.44%	9
1993-1998	1.16%**	0.02	0.31%	53.95%	76
1999-2004	1.50%***	0.00	1.29%	65.77%	149
2005-2010	0.57%**	0.02	0.09%	51.39%	360
2011-2016	0.97%***	0.00	0.43%	56.86%	357
2017-2022	1.37%***	0.00	0.43%	60.00%	265
Panel B. Cumulative Abnormal Returns for the event window [-2,2]					
1987-1992	1.71%	0.26	0.74%	60.00%	10
1993-1998	0.71%	0.24	0.91%	57.53%	73
1999-2004	1.69%***	0.00	1.39%	60.43%	139
2005-2010	0.89%***	0.00	0.27%	52.33%	365
2011-2016	0.95%***	0.00	0.66%	57.73%	362
2017-2022	1.17%***	0.00	0.57%	56.93%	267

Table 7 presents the average effect of the cross-border transactions on the cumulative abnormal returns for the three-day (Panel A) and five-day (Panel B) event windows, sorted by industry for the entire sample period. With this segmentation, it is not possible to infer about all bidder

macro industries. However, it is important to note that CARs for both time windows are statistically significant at a 1% level for the following industries: Consumer Staples, High Technology, and Industrials. Additionally, cumulative abnormal returns referring to Materials and Media and Entertainment are statistically significant at a 5% level. Bidders involved in the latter industry earn the most from cross-border deals, presenting on average a stock price increase of 2.3% and 2.6% for the event windows [-1, 1] and [-2, 2], respectively.

Table 7: Descriptive statistics on CARs per macro industry

This table reports the descriptive statistics on cumulative abnormal returns over the period ranging from 1987 to 2022. Panel A presents CARs during the three-day event window. Panel B shows CARs during the five-day event window. The data is categorized according to the macro industry of acquirers. The variable % Pos. refers to the percentage of positive values. N corresponds to the number of observations. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Mean	P-value	Median	% Pos.	N
Panel A. Cumulative Abnormal Returns for the event window [-1,1]					
Consumer Products and Services	0.78%	0.14	0.61%	60.00%	65
Consumer Staples	1.42%***	0.00	0.51%	57.03%	128
Energy and Power	-0.48%	0.38	-0.65%	40.35%	57
Financials	0.90%**	0.01	0.28%	52.83%	106
Healthcare	0.60%	0.22	0.02%	52.69%	93
High Technology	1.63%***	0.00	1.13%	63.78%	254
Industrials	1.30%***	0.00	0.66%	60.00%	165
Materials	0.70%**	0.02	0.37%	52.80%	214
Media and Entertainment	2.30%**	0.04	1.07%	70.00%	30
Real Estate	-0.15%	0.80	-0.39%	47.83%	46
Retail	0.63%	0.46	0.06%	53.85%	39
Telecommunications	0.79%	0.42	0.83%	63.16%	19
Panel B. Cumulative Abnormal Returns for the event window [-2,2]					
Consumer Products and Services	2.15%***	0.00	1.01%	62.50%	64
Consumer Staples	1.35%***	0.01	0.42%	54.14%	133
Energy and Power	-0.21%	0.74	-0.36%	42.62%	61
Financials	0.75%	0.11	0.47%	55.88%	102
Healthcare	0.66%	0.28	-0.07%	48.89%	90
High Technology	1.83%***	0.00	1.39%	63.71%	259
Industrials	1.25%***	0.00	1.06%	59.15%	164
Materials	0.30%**	0.04	0.38%	53.05%	213
Media and Entertainment	2.56%**	0.01	2.72%	66.67%	27
Real Estate	-0.04%	0.94	0.04%	50.00%	46
Retail	0.44%	0.63	-0.39%	44.74%	38
Telecommunications	0.96%	0.46	0.76%	63.16%	19

Furthermore, this paper segments cumulative abnormal returns by the primary religion adopted by target countries (Table 8) and by geographic proximity between the capitals of bidder and bidding firm's countries (Table 9). Table 8 shows that, regardless of the time window, the results are statistically significant for each target religion within the sample at a 10% level, except for five-day CARs concerning Muslim target countries. Similarly, regardless of the geographic proximity between the two countries involved in a transaction, CARs are statistically significant at a 10% level, excluding the five-day results regarding the closest sub-category.

Table 8: Descriptive statistics on CARs per target religion

This table reports the descriptive statistics on cumulative abnormal returns over the period ranging from 1987 to 2022. Panel A presents CARs during the three-day event window. Panel B shows CARs during the five-day event window. The data is categorized according to the primary religion adopted in target countries. The variable % Pos. refers to the percentage of positive values. N corresponds to the number of observations. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Mean	P-value	Median	% Pos.	N
Panel A. Cumulative Abnormal Returns for the event window [-1,1]					
Buddhist	1.20%***	0.00	0.42%	56.16%	219
Catholic	1.08%***	0.00	0.43%	58.20%	433
Muslim	1.44%*	0.07	0.22%	53.85%	26
Protestant	0.76%***	0.00	0.47%	60.00%	468
Other	1.59%***	0.01	0.44%	55.34%	70
Panel B. Cumulative Abnormal Returns for the event window [-2,2]					
Buddhist	1.47%***	0.00	0.31%	52.29%	218
Catholic	1.10%***	0.00	0.90%	59.16%	431
Muslim	0.44%	0.70	-0.75%	38.46%	26
Protestant	0.80%***	0.00	0.57%	60.00%	471
Other	1.43%**	0.02	0.94%	55.84%	70

Table 9: Descriptive statistics on CARs per geographic proximity

This table reports the descriptive statistics on cumulative abnormal returns over the period ranging from 1987 to 2022. Panel A presents CARs during the three-day event window. Panel B shows CARs during the five-day event window. The data is divided into 6 sub-groups according to the geographic proximity between the capitals of bidder and bidding firm's countries, expressed in miles. The variable % Pos. refers to the percentage of positive values. N corresponds to the number of observations. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Mean	P-value	Median	% Pos.	N
Panel A. Cumulative Abnormal Returns for the event window [-1,1]					
0 - 2,000	0.75%*	0.06	0.18%	50.54%	93
2,000 - 4,000	1.50%***	0.00	0.71%	59.54%	131
4,000 - 6,000	0.77%***	0.01	0.09%	53.01%	249
6,000 - 8,000	1.46%***	0.00	0.60%	62.14%	280
8,000 - 10,000	0.85%***	0.01	0.37%	53.70%	257
10,000 - 12,000	0.73%**	0.01	0.66%	58.74%	206
Panel B. Cumulative Abnormal Returns for the event window [-2,2]					
0 - 2,000	0.70%	0.15	0.57%	56.12%	98
2,000 - 4,000	0.85%*	0.08	0.02%	51.09%	137
4,000 - 6,000	0.83%**	0.02	0.25%	52.42%	248
6,000 - 8,000	1.39%***	0.00	1.00%	58.99%	278
8,000 - 10,000	0.98%***	0.00	0.66%	55.16%	252
10,000 - 12,000	1.27%***	0.00	1.05%	62.07%	203

Moreover, the tables show that usually the median is lower than the mean for overall CARs and for each segmentation, indicating that the distribution is right-skewed. Thus, the majority of observations are clustered around the left tail of the distribution (lower values), which suggests a lower impact of cross-border deals on stock prices.

4.2. Drivers of cumulative abnormal returns

To comprehend the factors that contribute to the positive bidder's cumulative abnormal returns, this research employs a series of OLS regressions, where the dependent variable is the CARs over a three-day event window. This paper has identified five primary dimensions that may explain the favorable effects of cross-border transactions of High income level companies on bidders of Lower-Middle and Upper-Middle income levels. These dimensions are based on prior literature and include: (i) cultural distance; (ii) geographical distance; (iii) financial advisors; (iv) institutional conditions; and (v) innovation. Additionally, this study takes into consideration the three different target listing statuses (public, private, and subsidiary), and controls for year and industry fixed effects. Considering the year fixed effects, this paper divides the sample period into six sub-groups of six years.

Table 10 displays the descriptive statistics for the variables of each dimension, presented in each Panel. A detailed explanation for each variable and the rational for its selection will be

provided in its respective dimension section below. It is worth noting that some variables lacked available information for all observations. Consequently, the number of observations for the analysis will be lower than the original 1,216 deals and may differ across the different variables tested.

Focusing on the cultural distance dimension, the analysis reveals that 30% of the sample transactions involve acquirers and targets that share the same language. In 15% of the deals, bidder and bidding firms are from countries with the same primary religion. The average (median) Cultural Distance Index (CDI) is 0.49 (0.48), whereas the average (median) CDI2 is 0.52 (0.56), indicating that, when including the two additional Hofstede dimensions, the countries involved in each transaction are more culturally distant.

Regarding the geographical distance dimension, the analysis indicates that the average distance between the capitals of the countries involved in each transaction is 6,914 miles (with a higher median of 7,246 miles). Moreover, 35% of the deals involve countries from the same region.

In terms of the utilization of financial advisors, bidders engage a financial advisor in 38% of transactions, with only 4% of them employing a top-tier investment bank.

Furthermore, 66% of the deals involve countries sharing the same origin of legal systems. In 18% of the transactions, acquirers from common-law countries purchase a target from a civil-law country. On average, bidders' countries rank 61 in DataBank concerning the effectiveness of their government.

In terms of innovation, the average total patent applications in the target country are 11 times that of the acquirer country, indicating a higher focus on innovation by the target country. Additionally, R&D expenditures represent, on average, 2% of the target country's GDP, indicating government and private sector efforts to gain a competitive advantage in science and technology, which may attract potential bidders from less developed countries.

Table 10: Descriptive statistics on dimension variables

This table presents the descriptive statistics for the dimensions' variables which may explain cross-border deals announced between 1987 and 2022. Each panel provides the mean, median and number of observations of the variables considered in each dimension. Panel A corresponds to cultural distance. Panel B corresponds to geographical distance. Panel C corresponds to the use of financial advisors. Panel D corresponds to the institutional conditions of the home country. Panel E corresponds to the degree of innovation of the host country.

	Mean	Median	N
Panel A. Cultural Distance Variables			
Same Language (%)	30.12	-	1172
Same Religion (%)	15.36	-	1172
CDI	0.49	0.48	1138
CDI2	0.52	0.56	1118
Panel B. Geographical Distance Variables			
GeoProx	6,914.06	7,245.69	1172
Same Region (%)	35.15	-	1172
Panel C. Financial Advisors Variables			
Bidder Used Advisor (%)	38.14	-	1172
Top-Tier (%)	4.44	-	1172
Panel D. Institutional Conditions Variables			
Same Legal Origin (%)	65.62	-	762
Gov Effectiveness	61	58	1138
Common Law (%)	18.24	-	762
Panel E. Innovation Variables			
Patent	11.03	1.33	1046
R&D (% GDP)	1.98	2.06	968

4.2.1. Control Variables

Firstly, as previously mentioned, this paper incorporates five control variables that have been recognized in the literature as having an impact on cumulative abnormal returns. Table 11 presents the estimated regressions considering solely the control variables as independent variables. The analysis is conducted for the entire sample, as well as for the three primary target listing statuses. The results indicate that, for both the entire sample and particularly for subsidiary deals, the size of the bidder has a negative effect on cumulative abnormal returns, which is consistent with Moeller, Schlingemann, and Stulz (2004). Moreover, relative size has a positive impact on CARs, considering the overall sample and particularly for private targets, which is in agreement with previous research by Golubov, Petmezas, and Travlos (2012) and Moeller, Schlingemann, and Stulz (2004). The remaining three control variables (Diversifying Deals, Leverage and Book-to-Market ratio) are not statistically significant, and thus no conclusive findings can be drawn regarding their impact on cumulative abnormal returns.

Table 11: Bidder CARs on control variables by target listing status

This table presents the OLS regressions of bidder CARs on the defined control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022. Model (1) shows the results for the entire sample, and models (2), (3), and (4) report the findings for public, private, and subsidiary targets, respectively. Size is the natural logarithm of the market value of equity of the bidder 30 days before the announcement date. Relative Size is the value of the transaction divided by the bidder's market value of equity 30 days before the announcement. Diversifying Deals is a dummy variable assigned a value of 1 if the macro industries of the bidder and target differ, and 0 otherwise. Leverage is the total debt as a percentage of total assets for the fiscal year-end prior to the announcement. Book-to-Market is the book value of equity at the fiscal year-end preceding the announcement divided by the market value of equity 30 days before the announcement. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) Public	(3) Private	(4) Subsidiary
Size	-0.002**	-0.000	-0.001	-0.002**
	(-2.386)	(-0.115)	(-1.253)	(-1.988)
Relative Size	0.002***	-0.009	0.002***	0.003
	(5.130)	(-0.735)	(6.785)	(1.626)
Diversifying Deals	0.004	0.008	-0.001	0.006
	(1.321)	(0.621)	(-0.137)	(1.426)
Leverage	-0.000	0.000	0.000	-0.000
	(-0.484)	(0.467)	(0.079)	(-1.108)
Book-to-Market	-0.974	5.920	-1.728	-1.260
	(-1.240)	(0.724)	(-0.777)	(-1.450)
Intercept	0.020	0.019	0.031*	-0.021
	(1.310)	(0.466)	(1.860)	(-1.459)
Observations	1,165	128	540	492
Adjusted R-squared	0.019	-0.006	0.027	0.015

4.2.2. Cultural Distance

When examining transactions between two different countries, it is crucial to consider how their respective cultures may influence the execution of a deal. Each country possesses a distinct cultural identity, characterized by varying languages, religions, and general behaviors. These differences may collectively amplify or diminish the costs associated with merging two firms across national borders.

This study seeks to investigate whether these factors influence the cumulative abnormal returns of bidders during the announcement period. Accordingly, it incorporates several variables to capture the effects of cultural distance, including a dummy variable set equal to one if the target and acquirer share a primary language (Same Language) and another binary variable assigned a value of one if they share a primary religion (Same Religion). In accordance with Stulz and Williamson's (2003) methodology, this study records the primary spoken language and religion of each country from the Central Intelligence Agency (CIA) World Factbook 2022.

Moreover, this paper employs a composite cultural distance index (CDI) based on Hofstede's cultural dimensions, following the approach of Antia, Lin, and Pantzalis (2007). This methodology is similar to the one used by Aybar and Ficici (2009) in their research. It measures the cultural distance between the bidder and target countries. The CDI varies between 0 and 1, with higher values indicating greater cultural distance between countries. However, since Aybar and Ficici (2009) only consider four out of six cultural dimensions provided by Hofstede, this paper adapts the index and creates another one (CDI2), which incorporates all six dimensions (power distance, individualism, masculinity, uncertainty avoidance, long term orientation, and indulgence). All dimensions were retrieved from Hofstede Insights.

The OLS regressions of cumulative abnormal returns on the proxies for cultural distance are presented in Table 12 and Table 13. The former includes the CDI while the latter includes the CDI2. Due to their similarity in reflecting a composite cultural distance index, these variables could not be regressed simultaneously. The results reveal that, for public targets, bidder's CARs are hindered if both countries speak the same language. Specifically, bidders will earn, on average, 2% less returns. This discovery contradicts prior literature and common intuition, and is incongruous with the hypothesis 2 (H2) posited earlier. Additionally, only for public deals, CDI has a negative impact on cumulative abnormal returns. These results suggest that a greater cultural distance leads to lower cumulative abnormal returns, which is consistent with the findings of Ahern, Daminelli, and Fracassi (2015) and H2. The other variables are not statistically significant, and thus no conclusive inferences can be made regarding their impact on cumulative abnormal returns. This outcome is in line with Aybar and Ficici (2009).

Table 12: Bidder CARs on cultural distance proxies by target listing status (CDI)

This table presents the OLS regressions of bidder CARs on the cultural distance proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022. Models (1) to (4) show the results for the entire sample, and models (5), (6), and (7) report the findings for public, private, and subsidiary targets, respectively. Same Language is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary language. Same Religion is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary religion, and 0 otherwise. CDI is a composite cultural distance index based on four Hofstede's cultural dimensions (Power Distance, Individualism, Masculinity, and Uncertainty Avoidance). Size is the natural logarithm of the market value of equity of the bidder 30 days before the announcement date. Relative Size is the value of the transaction divided by the bidder's market value of equity 30 days before the announcement. Diversifying Deals is a dummy variable assigned a value of 1 if the macro industries of the bidder and target differ, and 0 otherwise. Leverage is the total debt as a percentage of total assets for the fiscal year-end prior to the announcement. Book-to-Market is the book value of equity at the fiscal year-end preceding the announcement divided by the market value of equity 30 days before the announcement. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) All	(5) Public	(6) Private	(7) Subsidiary
Same Language	-0.002			-0.003	-0.022**	0.005	-0.007
	(-0.675)			(-1.003)	(-2.102)	(1.262)	(-1.221)
SameReligion		0.002		0.002	0.002	0.002	-0.002
		(0.489)		(0.402)	(0.186)	(0.342)	(-0.278)
CDI			-0.007	-0.007	-0.045**	0.008	-0.016
			(-1.039)	(-1.018)	(-2.098)	(0.714)	(-1.419)
Size	-0.002**	-0.002**	-0.002**	-0.002**	-0.001	-0.002	-0.002*
	(-2.394)	(-2.405)	(-2.222)	(-2.233)	(-0.221)	(-1.438)	(-1.853)
Relative Size	0.002***	0.002***	0.002***	0.002***	-0.011	0.002***	0.003
	(5.079)	(5.169)	(5.004)	(4.943)	(-0.952)	(6.617)	(1.590)
Diversifying Deals	0.004	0.004	0.003	0.003	0.011	-0.001	0.006
	(1.303)	(1.362)	(1.203)	(1.219)	(0.859)	(-0.248)	(1.359)
Leverage	-0.000	-0.000	-0.000	-0.000	0.000	0.000	-0.000
	(-0.455)	(-0.486)	(-0.424)	(-0.379)	(0.521)	(0.006)	(-1.025)
Book-to-Market	-1.000	-0.983	-1.017	-1.068	6.745	-2.701	-1.355
	(-1.266)	(-1.266)	(-1.169)	(-1.232)	(0.805)	(-0.663)	(-1.536)
Intercept	0.021	0.019	0.023	0.025	0.046	0.028	-0.009
	(1.399)	(1.269)	(1.477)	(1.587)	(1.150)	(1.472)	(-0.527)
Observations	1,165	1,165	1,131	1,131	123	521	482
Adjusted R-squared	0.019	0.019	0.020	0.019	0.012	0.036	0.014

Table 13: Bidder CARs on cultural distance proxies by target listing status (CDI2)

This table presents the OLS regressions of bidder CARs on the cultural distance proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022. Models (1) to (4) show the results for the entire sample, and models (5), (6), and (7) report the findings for public, private, and subsidiary targets, respectively. Same Language is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary language. Same Religion is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary religion, and 0 otherwise. CDI2 is a composite cultural distance index based on all six of Hofstede's cultural dimensions (Power Distance, Individualism, Masculinity, Uncertainty Avoidance, Long Term Orientation, and Indulgence). Size is the natural logarithm of the market value of equity of the bidder 30 days before the announcement date. Relative Size is the value of the transaction divided by the bidder's market value of equity 30 days before the announcement. Diversifying Deals is a dummy variable assigned a value of 1 if the macro industries of the bidder and target differ, and 0 otherwise. Leverage is the total debt as a percentage of total assets for the fiscal year-end prior to the announcement. Book-to-Market is the book value of equity at the fiscal year-end preceding the announcement divided by the market value of equity 30 days before the announcement. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) All	(5) Public	(6) Private	(7) Subsidiary
Same Language	-0.002			-0.003	-0.020*	0.005	-0.006
	(-0.675)			(-0.967)	(-1.745)	(1.283)	(-1.128)
SameReligion		0.002		0.002	-0.001	0.003	-0.003
		(0.489)		(0.388)	(-0.047)	(0.456)	(-0.405)
CDI2			-0.008	-0.009	-0.035	0.007	-0.017
			(-1.136)	(-1.081)	(-1.618)	(0.654)	(-1.389)
Size	-0.002**	-0.002**	-0.002**	-0.002**	-0.000	-0.002	-0.002*
	(-2.394)	(-2.405)	(-2.249)	(-2.255)	(-0.069)	(-1.513)	(-1.778)
Relative Size	0.002***	0.002***	0.002***	0.002***	-0.010	0.002***	0.003
	(5.079)	(5.169)	(5.046)	(4.995)	(-0.869)	(6.563)	(1.643)
Diversifying Deals	0.004	0.004	0.004	0.004	0.010	-0.001	0.007
	(1.303)	(1.362)	(1.266)	(1.279)	(0.779)	(-0.295)	(1.453)
Leverage	-0.000	-0.000	-0.000	-0.000	0.000	-0.000	-0.000
	(-0.455)	(-0.486)	(-0.434)	(-0.397)	(0.526)	(-0.038)	(-1.044)
Book-to-Market	-1.000	-0.983	-1.039	-1.088	7.085	-2.938	-1.350
	(-1.266)	(-1.266)	(-1.187)	(-1.247)	(0.777)	(-0.728)	(-1.492)
Intercept	0.021	0.019	0.023	0.025	0.039	0.029	-0.009
	(1.399)	(1.269)	(1.503)	(1.597)	(0.916)	(1.523)	(-0.526)
Observations	1,165	1,165	1,112	1,112	121	511	475
Adjusted R-squared	0.019	0.019	0.020	0.020	-0.007	0.036	0.017

4.2.3. Geographical Distance

Similar to cultural distance, geographical distance may also have an impact on bidders' stock prices when acquiring targets from more developed countries. Therefore, this study provides two proxies for geographical distance based on Erel, Liao, and Weisbach's (2012) methodology: the great circle distance between the capitals of two countries (GeoProx) and a dummy variable assigned a value of one if the target and acquirer countries share the same region (Same Region).

Table 14: Bidder CARs on geographical distance proxies by target listing status

This table presents the OLS regressions of bidder CARs on the geographical distance proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022. Models (1) to (3) show the results for the entire sample, and models (4), (5), and (6) report the findings for public, private, and subsidiary targets, respectively. GeoProx is the great circle distance between the capitals of the acquirer and target countries. Same Region is a dummy variable assigned a value of 1 if the countries of acquirers and targets are located in the same region, and 0 otherwise. For the definition of the control variables, please refer to Appendix 2. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) Public	(5) Private	(6) Subsidiary
GeoProx	-0.000		-0.000	0.000	-0.000	-0.000
	(-0.898)		(-0.901)	(0.814)	(-0.079)	(-1.312)
Same Region		-0.000	-0.000	0.005	-0.005	0.004
		(-0.031)	(-0.128)	(0.556)	(-1.321)	(0.814)
Size	-0.002**	-0.002**	-0.002**	-0.001	-0.002	-0.002*
	(-2.364)	(-2.375)	(-2.364)	(-0.275)	(-1.361)	(-1.948)
Relative Size	0.002***	0.002***	0.002***	-0.009	0.002***	0.003*
	(4.979)	(5.130)	(4.982)	(-0.788)	(6.958)	(1.658)
Diversifying Deals	0.004	0.004	0.004	0.009	-0.001	0.007
	(1.314)	(1.321)	(1.313)	(0.691)	(-0.143)	(1.472)
Leverage	-0.000	-0.000	-0.000	0.000	0.000	-0.000
	(-0.469)	(-0.487)	(-0.476)	(0.597)	(0.015)	(-0.998)
Book-to-Market	-0.995	-0.974	-0.992	5.805	-1.718	-1.429
	(-1.243)	(-1.239)	(-1.239)	(0.692)	(-0.788)	(-1.601)
Intercept	0.022	0.020	0.022	0.013	0.033*	-0.011
	(1.475)	(1.309)	(1.477)	(0.299)	(1.903)	(-0.686)
Observations	1,165	1,165	1,165	128	540	492
Adjusted R-squared	0.019	0.019	0.018	-0.015	0.027	0.016

Table 14 presents the outcomes of the estimated regressions of cumulative abnormal returns on the proxies for geographical distance. The analysis reveals that neither variable is statistically significant, and consequently, no conclusions can be drawn from these findings. Thus, hypothesis 3 cannot be confirmed based on the obtained results.

4.2.4. Financial Advisors

This paper analyzes the impact of financial advisors on bidders' CARs through two variables: a dummy variable assigned a value of one if the acquirer used a financial advisor in the transaction (Bidder Used Advisor) and another binary variable set equal to one if such advisor was considered top-tier (Top-Tier). A financial advisor is considered top-tier if it belongs to the group of the eight highest-ranked advisors, based on the total value of transactions advised by each bank.

In Table 15, the estimated regressions of cumulative abnormal returns on the Bidder Used Advisor and Top-Tier variables are presented. The analysis indicates that both variables lack statistical significance. As a consequence, it is not possible to draw any conclusions from the results, and hypothesis 4 cannot be verified. These findings align with previous research conducted by Servaes and Zenner (1996).

Table 15: Bidder CARs on financial advisors' proxies by target listing status

This table presents the OLS regressions of bidder CARs on the financial advisors' proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022. Models (1) to (3) show the results for the entire sample, and models (4), (5), and (6) report the findings for public, private, and subsidiary targets, respectively. Bidder Used Advisor is a dummy variable assigned a value of 1 if the acquirer used a financial advisor in the transaction, and 0 otherwise. Top-Tier is a dummy variable set equal to 1 if the advisor is considered top-tier, and 0 otherwise. A financial advisor is considered top-tier if it belongs to the group of the 8 highest-ranked advisors, based on the total value of transactions advised by each bank. Size is the natural logarithm of the market value of equity of the bidder 30 days before the announcement date. Relative Size is the value of the transaction divided by the bidder's market value of equity 30 days before the announcement. Diversifying Deals is a dummy variable assigned a value of 1 if the macro industries of the bidder and target differ, and 0 otherwise. Leverage is the total debt as a percentage of total assets for the fiscal year-end prior to the announcement. Book-to-Market is the book value of equity at the fiscal year-end preceding the announcement divided by the market value of equity 30 days before the announcement. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) Public	(5) Private	(6) Subsidiary
Bidder Used Advisor	-0.000		0.000	-0.006	0.001	0.002
	(-0.135)		(0.023)	(-0.545)	(0.248)	(0.521)
Top-Tier		-0.004	-0.004	-0.016	0.006	-0.007
		(-0.678)	(-0.657)	(-1.252)	(0.803)	(-0.634)
Size	-0.002**	-0.002**	-0.002**	0.000	-0.001	-0.002*
	(-2.348)	(-2.247)	(-2.239)	(0.140)	(-1.297)	(-1.896)
Relative Size	0.002***	0.002***	0.002***	-0.004	0.002***	0.003
	(5.107)	(5.087)	(5.041)	(-0.301)	(6.523)	(1.531)
Diversifying Deals	0.004	0.004	0.004	0.005	-0.000	0.006
	(1.301)	(1.283)	(1.279)	(0.376)	(-0.100)	(1.385)
Leverage	-0.000	-0.000	-0.000	0.000	0.000	-0.000
	(-0.482)	(-0.472)	(-0.472)	(0.385)	(0.058)	(-1.065)
Book-to-Market	-0.972	-0.928	-0.928	5.067	-1.702	-1.182
	(-1.237)	(-1.151)	(-1.151)	(0.602)	(-0.760)	(-1.338)
Intercept	0.020	0.019	0.019	0.017	0.031*	-0.024
	(1.311)	(1.266)	(1.263)	(0.384)	(1.870)	(-1.609)
Observations	1,165	1,165	1,165	128	540	492
Adjusted R-squared	0.019	0.019	0.018	-0.009	0.024	0.013

4.2.5. Institutional Conditions

In light of prior research indicating that firms may seek foreign investment opportunities due to a perceived lack of adequate institutional conditions in their home country, this paper takes into account the institutional conditions of the acquiring firm's nation. To this end, the paper incorporates a measure of government effectiveness (Government Effectiveness), retrieved from DataBank. This metric assesses perceptions of the quality of public services, the quality of civil service and its autonomy from political pressures, the quality of policy design and implementation, and the government's trustworthiness in maintaining such policies. It is determined as a percentile rank that spans from 0 (lowest) to 100 (highest) across all countries.

Moreover, building on the work of Rossi and Volpin (2004), this paper aims to investigate whether acquiring targets from countries with lower investor protection confers benefits to the acquiring firm. Accordingly, it includes a dummy variable which takes the value of one when acquirers from common-law countries acquire targets from civil-law countries (Common Law).

Complementarily, this paper seeks to explore whether a shared legal origin between the bidder and target results in higher bidder returns, following the findings of Ahern, Daminelli, and Fracassi (2015). To achieve this, it includes a dummy variable that is assigned a value of one if they share a common legal origin (Same Legal Origin).

Table 16 presents the OLS regressions of cumulative abnormal returns on the proxies for institutional conditions in the bidder's home country. The findings indicate that, for the entire sample and private targets, bidder's CARs are hindered when their home government is more effective. These results diverge from prior literature (Witt and Lewin, 2007, Child and Rodrigues, 2005, Luo and Wang, 2012) and hypothesis 5.

Furthermore, for the entire sample and subsidiary deals, Common Law has a positive impact on cumulative abnormal returns. This outcome implies that bidders hailing from common-law jurisdictions realize higher cumulative abnormal returns when acquiring targets from civil-law countries. This finding is in line with hypothesis 6 advanced earlier and derived from Rossi and Volpin (2004).

Nonetheless, the results further suggest that having the same legal origin has a positive influence on cumulative abnormal returns. Therefore, this study adds to the conclusions of Ahern, Daminelli, and Fracassi (2015), which demonstrate a positive correlation between this variable and the volume of cross-border transactions. It can be concluded that this translates into greater returns for bidders. Thus, hypothesis 7 can be confirmed.

Table 16: Bidder CARs on institutional conditions' proxies by target listing status

This table presents the OLS regressions of bidder CARs on the institutional conditions' proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022. Models (1) to (4) show the results for the entire sample, and models (5), (6), and (7) report the findings for public, private, and subsidiary targets, respectively. Same Legal Origin is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a common origin of legal systems, and 0 otherwise. Gov. Effectiveness assesses perceptions of the quality of public services, the quality of civil service and its autonomy from political pressures, the quality of policy design and implementation, and the government's trustworthiness in maintaining such policies. It is determined as a percentile rank that spans from 0 (lowest) to 100 (highest) across all countries. Common Law is a dummy variable assigned a value of 1 when acquirers from common-law countries acquire targets from civil-law countries, and 0 otherwise. Size is the natural logarithm of the market value of equity of the bidder 30 days before the announcement date. Relative Size is the value of the transaction divided by the bidder's market value of equity 30 days before the announcement. Diversifying Deals is a dummy variable assigned a value of 1 if the macro industries of the bidder and target differ, and 0 otherwise. Leverage is the total debt as a percentage

of total assets for the fiscal year-end prior to the announcement. Book-to-Market is the book value of equity at the fiscal year-end preceding the announcement divided by the market value of equity 30 days before the announcement. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) All	(5) Public	(6) Private	(7) Subsidiary
Same Legal Origin	-0.001			0.008*	0.019	0.006	0.009
	(-0.360)			(1.687)	(1.009)	(0.897)	(1.164)
Gov. Effectiveness		-0.000		-0.000**	-0.000	-0.000**	-0.000
		(-0.438)		(-2.393)	(-0.296)	(-2.259)	(-1.481)
Common Law			0.004	0.011*	0.020	0.003	0.019*
			(0.944)	(1.896)	(0.830)	(0.363)	(1.920)
Size	-0.003***	-0.002**	-0.003***	-0.003***	-0.000	-0.003**	-0.003*
	(-2.977)	(-2.531)	(-2.967)	(-3.285)	(-0.060)	(-2.347)	(-1.835)
Relative Size	0.002***	0.002***	0.002***	0.002***	-0.017	0.002***	0.002
	(5.951)	(5.134)	(6.128)	(6.642)	(-0.735)	(7.722)	(0.838)
Diversifying Deals	0.002	0.004	0.002	0.003	-0.021	0.004	0.002
	(0.579)	(1.460)	(0.555)	(0.902)	(-1.348)	(0.928)	(0.318)
Leverage	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(-1.165)	(-0.372)	(-1.100)	(-1.232)	(-0.533)	(-0.685)	(-1.415)
Book-to-Market	-1.223	-0.872	-1.190	-0.705	14.883	0.444	-1.737*
	(-1.118)	(-1.082)	(-1.112)	(-0.512)	(1.324)	(0.094)	(-1.663)
Intercept	0.034**	0.029**	0.033*	0.053***	-0.004	0.076***	0.052
	(2.013)	(2.075)	(1.960)	(3.230)	(-0.076)	(3.385)	(1.601)
Observations	758	1,131	758	725	71	358	292
Adjusted R-squared	0.037	0.022	0.038	0.047	-0.068	0.063	0.021

4.2.6. Innovation

Considering that cross-border mergers and acquisitions are progressively being viewed as a crucial strategic approach for firms from less developed countries to acquire advanced technology and knowledge from host countries, this study employs two indicators of the degree of innovation in the target country: research and development expenditure as a percentage of gross domestic product (R&D) and the total number of patent applications (both resident and non-resident) from the target country as a percentage of the total number of patent applications from the bidder country (Patent).

Table 17: Bidder CARs on innovation proxies by target listing status

This table presents the OLS regressions of bidder CARs on the innovation proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022. Models (1) to (3) show the results for the entire sample, and models (4), (5), and (6) report the findings for public, private, and subsidiary targets, respectively. Patent is the total number of patent applications (both resident and non-resident) filed in a target country as a percentage of the total number of patent applications filed in a bidder country. R&D is gross domestic expenditures on research and development as a percent of GDP. Size is the natural logarithm of the market value of equity of the bidder 30 days before the announcement date. Relative Size is the value of the transaction divided by the bidder's market value of equity 30 days before the announcement. Diversifying Deals is a dummy variable assigned a value of 1 if the macro industries of the bidder and target differ, and 0 otherwise. Leverage is the total debt as a percentage of total assets for the fiscal year-end prior to the announcement. Book-to-Market is the book value of equity at the fiscal year-end preceding the announcement divided by the market value of equity 30 days before the announcement. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) Public	(5) Private	(6) Subsidiary
Patent	-0.000		-0.000	-0.000	-0.000	-0.000
	(-1.525)		(-0.942)	(-0.317)	(-0.784)	(-0.770)
R&D		-0.004**	-0.004*	-0.009	-0.002	-0.002
		(-2.123)	(-1.806)	(-1.348)	(-0.696)	(-0.746)
Size	-0.002**	-0.002*	-0.002**	-0.002	-0.000	-0.003**
	(-2.232)	(-1.838)	(-2.003)	(-0.569)	(-0.071)	(-2.129)
Relative Size	0.001***	0.001***	0.001***	-0.013	0.002***	-0.000
	(3.994)	(3.885)	(3.778)	(-1.325)	(6.900)	(-0.129)
Diversifying Deals	0.003	0.004	0.003	-0.002	-0.003	0.007
	(0.871)	(1.184)	(0.993)	(-0.096)	(-0.652)	(1.348)
Leverage	-0.000	0.000	-0.000	0.000	-0.000	-0.000
	(-0.304)	(0.097)	(-0.188)	(0.318)	(-0.246)	(-0.544)
Book-to-Market	-1.461	-1.512	-1.332	5.377	0.372	-2.648**
	(-1.279)	(-1.111)	(-0.977)	(0.481)	(0.077)	(-2.385)
Intercept	0.025	0.026**	0.031***	0.028	0.021	0.045**
	(1.610)	(2.175)	(2.626)	(0.788)	(1.259)	(2.301)
Observations	1,039	961	934	93	434	403
Adjusted R-squared	0.018	0.019	0.018	-0.057	0.050	0.008

Table 17 shows the estimated regressions of CARs on the proxies for innovation in the host country. The results indicate that, for the entire sample, acquiring a target from a country with higher relative R&D expenditures has a negative effect on cumulative abnormal returns. This finding contradicts prior research and fails to support the strategic-asset-seeking hypothesis (H8).

The other variable of interest, Patent, lacks statistical significance, and hence no definitive conclusions can be made regarding its influence on cumulative abnormal returns.

5. Robustness

The objective of this section is to establish the credibility and soundness of the research outcomes by implementing rigorous robustness assessments. Accordingly, this section conducts a thorough analysis of the results by testing their sensitivity to variations in estimation and event windows, as well as the exclusion of China from the dataset.

5.1. Cumulative abnormal returns

The high volume and valuation of deals in China, which account for 25% and 30% of the total sample, respectively, could potentially bias the obtained results (sampling bias). Consequently, the present section of the study excludes China from the dataset to evaluate whether this omission produces similar findings.

Table 18 presents descriptive statistics of acquirers' cumulative abnormal returns within the [-1, 1], [-2, 2] and [-10, 1] event windows. The paper analyses an extended event window of eleven days to incorporate the potential impact of less efficient markets associated with less developed acquirers. This approach is motivated by the rationale presented in Nicholson and Salaber's (2013) work, which highlights factors such as imperfect regulatory environment and insider trading as contributing to market inefficiencies. The results reveal that cumulative abnormal returns of bidders hailing from less developed countries and acquiring targets from more developed countries remain positive and statistically significant at the 1% level, irrespective of the chosen time window. These observations align with earlier research findings.

Table 18: Descriptive statistics on CARs excluding China

This table reports the descriptive statistics on cumulative abnormal returns during the three-day, five-day, and eleven-day event windows, concerning cross-border deals between acquirers from Lower-Middle and Upper-

Middle income level countries and targets from High income level countries, over the period ranging from 1987 to 2022. The sample excludes deals involving China as the acquirer nation. The variable % Pos. refers to the percentage of positive values. N corresponds to the number of observations. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	CARs [-1,1]	CARs [-2,2]	CARs [-10,1]
Mean	0.82%***	0.79%***	1.00%***
P-value	0.00	0.00	0.00
Median	0.35%	0.49%	0.19%
% Pos.	55.44%	54.44%	51.72%
Standard Deviation	0.04	0.05	0.07
Skewness	0.36	0.35	0.45
Kurtosis	3.10	3.19	3.13
Min	-8.07%	-10.35%	-14.72%
Max	12.04%	14.88%	21.52%
N	900	900	901

Table 19: Descriptive statistics on CARs per income level excluding China

This table reports the descriptive statistics on CARs during the three-day, five-day, and eleven-day event windows over the period ranging from 1987 to 2022. The data is categorized according to the income level groups of bidders: Lower-Middle and Upper-Middle. The sample excludes deals involving China as the acquirer nation. The variable % Pos. refers to the percentage of positive values. N corresponds to the number of observations. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	CARs [-1,1]	CARs [-2,2]	CARs [-10,1]
Panel A. Cumulative Abnormal Returns of Lower-Middle level			
Mean	1.10%***	1.02%***	1.28%***
P-value	0.00	0.00	0.00
Median	0.66%	0.81%	0.22%
% Pos.	60.53%	58.20%	51.72%
N	380	378	377
Panel B. Cumulative Abnormal Returns of Upper-Middle level			
Mean	0.61%***	0.63%***	0.79%**
P-value	0.00	0.00	0.01
Median	0.10%	0.17%	0.19%
% Pos.	51.73%	51.72%	51.72%
N	520	522	524

Furthermore, Table 19 divides the sample into two distinct sub-groups based on the income level of the acquirer's country. The table shows that the CARs of acquirers from Lower-Middle income level countries are positive and statistically significant at a 1% significance level. In

comparison, CARs for acquirers from Upper-Middle income level countries are roughly half that of Lower-Middle income level countries. Notwithstanding, the CARs for the former remain statistically significant at a 5% level, irrespective of the event window considered. These outcomes are also consistent with previous research' results.

Following the approach of Chari, Ouimet, and Tesar (2010), this paper has also applied an alternative estimation window of 250 days, beginning 279 days and ending 30 days before the announcement date. In addition to the three-day and five-day event windows, this study has also examined the time window starting from 10 days before and ending 1 day after the announcement date.

Table 20 provides the descriptive statistics for the CARs within the three event windows. Consistently with prior research, CARs are positive and statistically significant at the 1% level. Moreover, Table 21 partitions the sample between Lower-Middle and Upper-Middle income levels of acquirers' countries. The results show that CARs remain positive and statistically significant at the 1% level. These findings align with the previous results of this paper.

Therefore, it can be inferred that the announcement of cross-border transactions leads to a favorable effect on the cumulative abnormal returns of acquirers, and this conclusion is robust.

Table 20: Descriptive statistics on CARs using an alternative estimation window

This table reports the descriptive statistics on cumulative abnormal returns during the three-day, five-day, and eleven-day event windows, concerning cross-border deals between acquirers from Lower-Middle and Upper-Middle income level countries and targets from High income level countries, over the period ranging from 1987 to 2022. Abnormal returns are computed using an alternative estimation window of 250 days, beginning 279 days and ending 30 days before the announcement date. The variable % Pos. refers to the percentage of positive values. N corresponds to the number of observations. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	CARs [-1,1]	CARs [-2,2]	CARs [-10,1]
Mean	1.04%***	1.04%***	1.12%***
P-value	0.00	0.00	0.00
Median	0.54%	0.64%	0.51%
% Pos.	56.68%	55.18%	53.05%
Standard Deviation	0.04	0.05	0.07
Skewness	0.47	0.40	0.35
Kurtosis	3.25	3.21	3.02
Min	-8.42%	-11.15%	-16.01%
Max	13.82%	16.00%	21.81%
N	1,198	1,198	1,195

Table 21: Descriptive statistics on CARs per income level using an alternative estimation window

This table reports the descriptive statistics on cumulative abnormal returns during the three-day, five-day, and eleven-day event windows over the period ranging from 1987 to 2022. The data is categorized according to the income level groups of bidders: Lower-Middle and Upper-Middle. Abnormal returns are computed using an alternative estimation window of 250 days, beginning 279 days and ending 30 days before the announcement date. The variable % Pos. refers to the percentage of positive values. N corresponds to the number of observations. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	CARs [-1,1]	CARs [-2,2]	CARs [-10,1]
Panel A. Cumulative Abnormal Returns of Lower-Middle level			
Mean	1.19%***	1.23%***	1.22%***
P-value	0.00	0.00	0.00
Median	0.68%	0.84%	0.51%
% Pos.	60.57%	57.99%	52.24%
N	388	388	379
Panel B. Cumulative Abnormal Returns of Upper-Middle level			
Mean	0.97%***	0.95%***	1.07%***
P-value	0.00	0.00	0.00
Median	0.41%	0.54%	0.47%
% Pos.	54.81%	53.83%	53.43%
N	810	810	816

5.2. Drivers of cumulative abnormal returns

Firstly, this paper conducts the OLS regressions that were previously performed, excluding China from the dataset. To conserve space, the respective tables are provided in the Appendix.

With regard to the cultural distance dimension, the results reveal that having the same language is no longer statistically significant, which complements the research conducted by Erel, Liao, and Weisbach (2012). This may suggest that China was driving the previous results. Consequently, it can be inferred that speaking Mandarin does not confer an advantage when conducting business with Chinese firms, on average. Moreover, the paper finds that having the same primary religion has a positive impact on cumulative abnormal returns, when this variable is examined in isolation. This result is aligned with Ahern, Daminelli, and Fracassi (2015). At a 10% level of significance, it can be concluded that, on average, sharing a common primary religion with the target enhances bidders' returns by 0.6%. This may be attributable to the fact that China is officially an atheist country, implying that this variable would not influence how

investors of Chinese companies perceive cross-border deals. Additionally, it is worth stating that the composite cultural distance index based on four of Hofstede's cultural dimensions (CDI) continues to affect bidders' returns, as previously noted.

Regarding the geographical distance dimension, the findings indicate that GeoProx has a significantly negative impact on bidders' returns when acquiring subsidiary targets. Since this variable measures the distance between the capitals of the two countries involved in the transaction, this implies that a greater geographical distance is detrimental to bidders, which is consistent with Erel, Liao, and Weisbach (2012) and Ahern, Daminelli, and Fracassi (2015).

Considering the financial advisors' dimension, the results are mixed. In the case of the public deals' sub-sample, top-tier financial advisors have a negative effect on bidders' returns. However, in the private deals' sub-sample, employing a top-tier advisor has a positive impact on returns. The public deals' sub-sample is relatively small (97 observations), which may bias the findings. Further research on the subject is required to draw more definitive conclusions about the effect of this variable on returns.

Moreover, with regards to the institutional conditions of the home country, common law and sharing a common legal origin are no longer statistically significant. Therefore, no conclusions can be drawn from these results. Finally, when examining the innovation dimension, the R&D expenditure as a percentage of GDP remains statistically significant, albeit only when analyzed in isolation.

In addition, this paper explores whether the results are affected by a different estimation window, including the entire dataset. The findings indicate that the overall results are highly similar to those obtained for the estimation window [-244, -6].

In terms of the cultural distance dimension, when focusing on the public deals' sub-sample, the composite cultural distance index based on Hofstede's six cultural dimensions (CDI2) has a negative impact on cumulative abnormal returns. This suggests that greater cultural distance between the countries involved hinders bidders' returns. This result is consistent with that of CDI, both for the previous estimation window and the current one, thus yielding the same insight. Additionally, the same negative results are observed for sharing the same primary language, as seen in the previous analysis. Moreover, the proxies for geographical distance and financial advisors remain statistically insignificant. Regarding the institutional conditions dimension, all three proxies yield the same results as previously concluded, indicating a

significant impact on cumulative returns. Nonetheless, it should be noted that government effectiveness also has a detrimental effect on returns when particularly considering subsidiary targets. Lastly, in relation to the innovation of the host country, R&D expenses as a percentage of GDP continues to be statistically significant.

Hence, the study finds that only three variables consistently yield the same results across the entire analysis (including the two robustness tests): CDI, Gov. Effectiveness, and R&D.

6. Limitations and Future Research

The event study methodology is based on the semi-strong form of the efficient market hypothesis, which assumes that the market response to public information is instantaneous, complete, and unbiased. However, there may be instances where market participants do not fully comprehend the intricacies of a cross-border deal in the short-term. Hence, relying solely on short-term shareholder reactions may not be a viable approach, as it does not predict the long-term performance of an international transaction. It is important to note that positive short-term performance does not necessarily guarantee long-term success. To address this methodological limitation, researchers may consider using long-term performance measures to complement short-term event studies, as it would help ensure the robustness of the event study results.

Furthermore, the sample exhibits a high degree of regional concentration, with China and India being the predominant acquirer nations, comprising over 50% of the total observations. Consequently, this limited diversification could potentially bias the results and fail to accurately represent the entirety of firms originating from less developed countries. In fact, the paper aims to partially address this limitation by removing China from the dataset. Although India still predominates as an acquirer country, this removal aligns the results more closely with prior research. Hence, future research could focus on acquirer nations apart from China and India.

Another critical limitation of the study is its exclusive focus on publicly listed bidders, which is essential for conducting the event study methodology. Consequently, the results may not apply to private acquirers, who may have different incentives for engaging in foreign acquisitions and thus may exhibit distinct transaction characteristics. To overcome this

constraint, future investigations could focus on private bidders to ascertain the generalizability of the results.

Moreover, the analysis aims to ascertain the extent of value creation or destruction from the acquirers' perspective. Therefore, while the study reveals that cross-border deals are advantageous for bidders, this conclusion may not remain valid when assessing the aggregate value generated for acquirers and targets. The overall value could either increase or decrease, even reaching negative values. To address this drawback, a reproduction of the research that explores the value generation potential for both bidders and bidding firms could prove informative.

Finally, the insufficient availability of data on certain variables resulted in a significant reduction of the sample size, with some OLS regression models being based on around 700 observations, which is a considerably low number and may not provide adequate evidence for making definitive conclusions. To overcome this limitation, I recommend that future research gathers more information from a diverse range of databases to increase the overall sample size and thereby achieve more statistically robust and significant findings.

7. Conclusion

This paper investigates the impact of the announcement of cross-border deals between acquirers from Lower-Middle and Upper-Middle income level countries and targets from High income level nations on the bidders' cumulative abnormal returns (CARs). To accomplish this, the study employs an event study methodology based on Brown and Warner's (1985) framework. The sample comprises 1,216 transactions from 1987 to 2022 retrieved from Refinitiv Eikon's Deal Screener.

Aligned with Nicholson and Salaber (2013), the analysis reveals statistically significant positive stock price reactions to this announcement, at the 1% level. As a result, the null hypothesis (H0) that cross-border deals do not affect the market value of equity for listed firms is rejected, based on the econometric model's outcomes.

Furthermore, the paper conducts OLS regressions to elucidate the factors underlying the positive correlation mentioned above. Specifically, it examines five key dimensions, namely

cultural distance, geographical distance, financial advisors, institutional conditions of the home country and the degree of innovation of the host country.

The analysis shows that geographical distance and financial advisors do not affect CARs. As for cultural distance, the results are mixed when targeting public firms. Sharing a common primary language has a statistically significant negative effect on returns, indicating a negative effect of cultural proximity. Nevertheless, the composite cultural distance index is negatively associated with returns, suggesting that greater cultural proximity leads to higher returns, which is in line with Ahern, Daminelli, and Fracassi (2015).

When examining the institutional conditions of the home country, the study finds that sharing a common legal origin is beneficial for bidders' returns, consistent with Ahern, Daminelli, and Fracassi (2015). The results also indicate that bidders will earn greater abnormal returns if they acquire a target from a country with lower investor protection, which complements Rossi and Volpin's (2004) research. However, having a more effective government in the home country will hinder bidders' returns, which fails to support Witt and Lewin (2007), Child and Rodrigues, 2005, and Luo and Wang (2012).

Finally, considering the innovation of the host country, the study concludes that spending more on R&D as a percentage of GDP is detrimental to bidders' returns, refuting the hypothesis that bidders from less developed countries use cross-border deals to leverage the innovation knowledge of the host country, studied by Luo and Tung (2007), Rabbiosi, Elia, and Bertoni (2012), and Chen, Li, and Shapiro (2012).

To ensure the reliability of the research findings, the paper undertakes two robustness tests. Firstly, it addresses the potential issue of sampling bias by excluding China from the dataset, since a substantial proportion of the observations features the country as an acquiring nation, accounting for 25% of total deal volume and 30% of total deal value. This test supports the results of the paper regarding the correlation between cross-border transactions and CARs. However, some discrepancies in the findings emerge when examining this association.

Regarding cultural distance, the results show that sharing a common primary language is no longer statistically significant, which is consistent with Erel, Liao, and Weisbach (2012). Additionally, sharing a common primary religion has a positive impact on bidders' returns, which is in line with Ahern, Daminelli, and Fracassi (2015). The analysis also indicates that GeoProx has a negative impact on bidders' returns when targeting subsidiary firms, which is

aligned with Erel, Liao, and Weisbach (2012) and Ahern, Daminelli, and Fracassi (2015). Furthermore, the use of a top-tier financial advisor is positively associated with acquirers' CARs when targeting private firms, but negatively impacts returns when targeting public companies. Common Law and Same Legal Origin are no longer statistically significant.

The second robustness test involves using a different estimation window to calculate bidders' abnormal returns, employing an estimation window of 250 days, ending 30 days before the announcement date, as suggested by Chari, Ouimet, and Tesar (2010). The analysis implies that the overall effect of the announcement of cross-border deals on CARs is robust. Moreover, when examining the factors driving the positive CARs, the use of an alternative estimation window does not significantly alter the results.

In conclusion, the study finds that the announcement of cross-border deals has a positive impact on the cumulative abnormal returns of the acquirers. Nonetheless, due to the mixed results in some dimensions, the research cannot assert with certainty the factors that drive this positive association.

This paper strives to address the research gap in the literature concerning cross-border deals involving bidders from less developed countries and targets from more developed countries. Nevertheless, further research is necessary to reach more definitive conclusions and overcome the limitations of the study.

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9. Appendices

Appendix 1: List of countries per income level

Lower-Middle	High	
Egypt	Australia	Netherlands
India	Austria	New Zealand
Indonesia	Bahamas	Norway
Lebanon	Bahrain	Oman
Myanmar (Burma)	Belgium	Panama
Nigeria	Bermuda	Poland
Papua New Guinea	British Virgin Islands (UK)	Portugal
Philippines	Brunei	Puerto Rico
Ukraine	Canada	Qatar
Vietnam	Cayman Islands	Republic of Ireland
	Chile	Romania
Upper-Middle	Croatia	Saudi Arabia
Argentina	Cyprus	Singapore
Brazil	Czech Republic	Slovak Republic
Bulgaria	Denmark	Slovenia
China	Finland	South Korea
Colombia	France	Spain
Ecuador	Germany	Sweden
Jamaica	Hong Kong	Switzerland
Jordan	Hungary	Taiwan
Kazakhstan	Isle of Man	United Arab Emirates
Malaysia	Israel	United Kingdom
Mauritius	Italy	United States of America
Mexico	Japan	Uruguay
Peru	Kuwait	
Russian Federation	Latvia	
South Africa	Luxembourg	
Thailand	Malta	
Turkey	Monaco	

Appendix 2: Definition of the variables

Variable	Definition
Panel A. Bidder Characteristics	
CAR (-1, 1)	Cumulative abnormal returns of the bidders during a three-day event window (−1, +1) with the announcement date marked as 0. The returns are calculated using the market model. The market model parameters are estimated within a period ranging from 244 days to 6 days before the announcement date. The MSCI Emerging Markets index return is used as the market return.
CAR (-2, 2)	Cumulative abnormal returns of the bidders during a five-day event window (−2, +2) with the announcement date marked as 0. The returns are calculated using the market model. The market model parameters are estimated within a period ranging from 244 days to 6 days before the announcement date. The MSCI Emerging Markets index return is used as the market return.
Bidder used advisor	Dummy variable assigned a value of 1 if the acquirer used a financial advisor in the transaction, 0 otherwise. Retrieved from Deal Screener.
Top-tier	Dummy variable set equal to 1 if the advisor is considered top-tier, 0 otherwise. A financial advisor is considered top-tier if it belongs to the group of the 8 highest-ranked advisors, based on the total value of transactions advised by each bank. The top-8 financial advisors are Goldman Sachs & Co, JP Morgan, BofA Securities Inc, Centerview Partners LLC, Morgan Stanley, Barclays, Guggenheim Securities LLC, and BMO Capital Markets. Retrieved from Deal Screener.
Size	The natural logarithm of the market value of equity of the bidder 30 days before the announcement date. Retrieved from Datastream.
Book-to-market	Book value of equity at the fiscal year-end preceding the announcement divided by the market value of equity 30 days before the announcement. Book value of equity is obtained by multiplying the book value per share with the number of common shares outstanding. Book value and market value of equity were retrieved from Datastream.
Leverage	Total debt as a percentage of total assets for the fiscal year-end prior to the announcement. Retrieved from Datastream.
Panel B. Deal Characteristics	
Deal value	Value of the cross-border transaction expressed in USD million. Retrieved from Deal Screener.
Public deals	Dummy variable assigned a value of 1 for acquisitions of public targets, 0 otherwise.
Private deals	Dummy variable assigned a value of 1 for acquisitions of private targets, 0 otherwise.
Subsidiary deals	Dummy variable assigned a value of 1 for acquisitions of subsidiary targets, 0 otherwise.

Relative size	Deal value divided by the bidder's market value of equity 30 days before the announcement.
Diversifying deals	Dummy variable assigned a value of 1 if the macro industries of the bidder and target differ, 0 otherwise. Macro industries of bidders and targets were retrieved from Deal Screener.
Mega deals	Dummy variable assigned a value of 1 if the deal value is greater than $500 million, 0 otherwise.
Panel C. Country Characteristics	
Same Language	Dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary language, 0 otherwise. Retrieved from World Factbook 2022.
Same Religion	Dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary religion, 0 otherwise. Retrieved from World Factbook 2022.
CDI	Composite cultural distance index based on four Hofstede's cultural dimensions (Power Distance, Individualism, Masculinity, and Uncertainty Avoidance). The cultural distance measure for each dimension j (j=1 to 4) and transaction i (CD_{ij}) is calculated as the absolute difference between the score of that dimension for the acquirer country and the target country, and is given by: $$CD_{ij} = |D_{j,acquirer} - D_{j,target}|$$ where D_{ij} is the score of one of the cultural dimensions for transaction i. A composite CD index (CDI) is then constructed by combining the four CD measures. The CDI is computed as follows: $$CDI_i = \frac{1}{N} * \frac{1}{J} * \sum_{j=1}^{J} Rank_j(CD_{ij})$$ where $Rank_j(CD_{ij})$ is the rank function that assigns a rank for each observation in the sample, rnging from the least different (rank of 1) to the most different (rank of N). J represents the number of cultural dimensions, which is 4. By dividing by N, the CDI is scaled from 0 (least different) to 1 (most different). This process follows the approach of Antia, Lin, and Pantzalis (2007).
CDI2	Composite cultural distance index based on all six of Hofstede's cultural dimensions (Power Distance, Individualism, Masculinity, Uncertainty Avoidance, Long Term Orientation, and Indulgence). The computation process of CDI2 follows the same approach as of CDI.
GeoProx	The great circle distance between the capitals of the acquirer and target countries. The latitude and longitude of the capitals of each country are retrieved from Maps of World. The standard formula used is: 3963.0 * arccos [sin(lat1) * sin(lat2) + cos(lat1) * cos(lat2) * cos (lon2 – lon1)], where lon and lat are the longitudes and latitudes of the acquirer country ("1" suffix) and the target country ("2" suffix) locations, respectively. This methodology follows the approach of Erel, Liao, and Weisbach (2012).

Same Region	Dummy variable assigned a value of 1 if the countries of acquirers and targets are located in the same region, 0 otherwise. Retrieved from Deal Screener.
Same Legal Origin	Dummy variable assigned a value of 1 if the countries of acquirers and targets share a common origin of legal systems (common-law, French-civil-law, German-civil-law, and Scandinavian-civil-law), 0 otherwise. Retrieved from Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998).
Gov. Effectiveness	Measure of government effectiveness, determined as a percentile rank that spans from 0 (lowest) to 100 (highest) across all countries. It assesses perceptions of the quality of public services, the quality of civil service and its autonomy from political pressures, the quality of policy design and implementation, and the government's trustworthiness in maintaining such policies. Retrieved from DataBank.
Common Law	Dummy variable assigned a value of 1 when acquirers from common-law countries acquire targets from civil-law countries, 0 otherwise. Retrieved from Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998).
Patent	Total number of patent applications (both resident and non-resident) filed in a target country as a percentage of the total number of patent applications filed in a bidder country. The patent applications considered are those filed through the Patent Cooperation Treaty procedure or with a national patent office for exclusive rights for an invention (a product or process providing a new technical solution to a problem). Retrieved from DataBank.
R&D	Gross domestic expenditures on research and development (R&D) as a percent of Gross Domestic Product. They include both capital and current expenditures in the four main sectors: Business enterprise, Government, Higher education and Private non-profit. The R&D expenditures cover basic research, applied research, and experimental development. Retrieved from DataBank.

Appendix 3: Bidder CARs on cultural distance proxies by target listing status (CDI) excluding China

This table presents the OLS regressions of bidder CARs on the cultural distance proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022, excluding deals featuring China as an acquirer nation. Models (1) to (4) show the results for the entire sample, and models (5), (6), and (7) report the findings for public, private, and subsidiary targets, respectively. Same Language is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary language. Same Religion is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary religion, and 0 otherwise. CDI is a composite cultural distance index based on four Hofstede's cultural dimensions (Power Distance, Individualism, Masculinity, and Uncertainty Avoidance). For the definition of the control variables, please refer to Appendix 2. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) All	(5) Public	(6) Private	(7) Subsidiary
Same Language	0.000			-0.001	-0.020	0.004	-0.000
	(0.066)			(-0.319)	(-1.621)	(0.937)	(-0.016)
Same Religion		0.006*		0.005	0.005	0.001	0.007
		(1.694)		(1.379)	(0.461)	(0.100)	(1.072)
CDI			-0.012	-0.008	-0.052*	-0.010	0.001
			(-1.596)	(-0.996)	(-1.978)	(-0.851)	(0.079)
Size	-0.002***	-0.002***	-0.002***	-0.002***	-0.002	-0.002	-0.003**
	(-3.340)	(-3.433)	(-3.130)	(-3.244)	(-0.666)	(-1.641)	(-1.985)
Relative Size	0.002***	0.002***	0.002***	0.002***	-0.009	0.002***	0.004***
	(5.178)	(5.273)	(5.014)	(5.118)	(-0.471)	(8.047)	(2.910)
Diversifying Deals	0.002	0.002	0.002	0.002	-0.010	-0.002	0.006
	(0.688)	(0.828)	(0.612)	(0.715)	(-0.705)	(-0.399)	(1.184)
Leverage	-0.000	-0.000	-0.000	-0.000	0.000	0.000	-0.000
	(-0.610)	(-0.555)	(-0.546)	(-0.482)	(0.094)	(0.150)	(-1.045)
Book-to-Market	-0.397	-0.447	-0.472	-0.549	4.213	-0.082	-1.567**
	(-0.614)	(-0.726)	(-0.741)	(-0.885)	(0.481)	(-0.019)	(-2.080)
Intercept	0.029*	0.027*	0.034**	0.032*	0.085**	0.036	-0.043**
	(1.792)	(1.689)	(2.104)	(1.916)	(2.084)	(1.620)	(-2.287)
Observations	859	859	829	829	92	402	330
Adjusted R-squared	0.046	0.050	0.049	0.049	-0.057	0.041	0.029

Appendix 4: Bidder CARs on cultural distance proxies by target listing status (CDI2) excluding China

This table presents the OLS regressions of bidder CARs on the cultural distance proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022, excluding deals featuring China as an acquirer nation. Models (1) to (4) show the results for the entire sample, and models (5), (6), and (7) report the findings for public, private, and subsidiary targets, respectively. Same Language is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary language. Same Religion is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary religion, and 0 otherwise. CDI2 is a composite cultural distance index based on all six of Hofstede's cultural dimensions (Power Distance, Individualism, Masculinity, Uncertainty Avoidance, Long Term Orientation, and Indulgence). For the definition of the control variables, please refer to Appendix 2. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) All	(5) Public	(6) Private	(7) Subsidiary
Same Language	0.000			-0.001	-0.017	0.004	-0.000
	(0.066)			(-0.250)	(-1.239)	(0.974)	(-0.000)
Same Religion		0.006*		0.006	0.003	0.001	0.007
		(1.694)		(1.347)	(0.236)	(0.180)	(1.021)
CDI2			-0.013	-0.008	-0.049	-0.011	0.005
			(-1.443)	(-0.812)	(-1.646)	(-0.735)	(0.344)
Size	-0.002***	-0.002***	-0.002***	-0.002***	-0.002	-0.002	-0.003**
	(-3.340)	(-3.433)	(-3.117)	(-3.233)	(-0.588)	(-1.600)	(-2.019)
Relative Size	0.002***	0.002***	0.002***	0.002***	-0.010	0.002***	0.004***
	(5.178)	(5.273)	(5.099)	(5.219)	(-0.515)	(8.285)	(2.939)
Diversifying Deals	0.002	0.002	0.002	0.003	-0.012	-0.001	0.007
	(0.688)	(0.828)	(0.808)	(0.898)	(-0.827)	(-0.268)	(1.388)
Leverage	-0.000	-0.000	-0.000	-0.000	0.000	0.000	-0.000
	(-0.610)	(-0.555)	(-0.576)	(-0.514)	(0.103)	(0.024)	(-0.998)
Book-to-Market	-0.397	-0.447	-0.466	-0.547	4.395	0.099	-1.600**
	(-0.614)	(-0.726)	(-0.715)	(-0.866)	(0.446)	(0.023)	(-2.112)
Intercept	0.029*	0.027*	0.034**	0.032*	0.087*	0.035	-0.045**
	(1.792)	(1.689)	(2.099)	(1.865)	(1.974)	(1.546)	(-2.386)
Observations	859	859	813	813	90	394	324
Adjusted R-squared	0.046	0.050	0.049	0.049	-0.080	0.039	0.035

Appendix 5: Bidder CARs on geographical distance proxies by target listing status excluding China

This table presents the OLS regressions of bidder CARs on the geographical distance proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022, excluding deals featuring China as an acquirer nation. Models (1) to (3) show the results for the entire sample, and models (4), (5), and (6) report the findings for public, private, and subsidiary targets, respectively. GeoProx is the great circle distance between the capitals of the acquirer and target countries. Same Region is a dummy variable assigned a value of 1 if the countries of acquirers and targets are located in the same region, and 0 otherwise. Size is the natural logarithm of the market value of equity of the bidder 30 days before the announcement date. Relative Size is the value of the transaction divided by the bidder's market value of equity 30 days before the announcement. Diversifying Deals is a dummy variable assigned a value of 1 if the macro industries of the bidder and target differ, and 0 otherwise. Leverage is the total debt as a percentage of total assets for the fiscal year-end prior to the announcement. Book-to-Market is the book value of equity at the fiscal year-end preceding the announcement divided by the market value of equity 30 days before the announcement. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) Public	(5) Private	(6) Subsidiary
GeoProx	-0.000		-0.000	0.000	0.000	-0.000**
	(-1.399)		(-1.423)	(0.518)	(0.677)	(-2.374)
Same Region		0.000	-0.001	0.010	0.000	-0.002
		(0.120)	(-0.196)	(1.014)	(0.002)	(-0.447)
Size	-0.002***	-0.002***	-0.002***	-0.003	-0.002*	-0.002*
	(-3.207)	(-3.306)	(-3.200)	(-0.836)	(-1.738)	(-1.878)
Relative Size	0.002***	0.002***	0.002***	-0.010	0.002***	0.004***
	(4.913)	(5.148)	(4.935)	(-0.516)	(8.394)	(3.058)
Diversifying Deals	0.002	0.002	0.002	-0.017	-0.001	0.005
	(0.684)	(0.690)	(0.678)	(-1.348)	(-0.161)	(1.122)
Leverage	-0.000	-0.000	-0.000	-0.000	0.000	-0.000
	(-0.574)	(-0.607)	(-0.575)	(-0.224)	(0.048)	(-0.996)
Book-to-Market	-0.395	-0.405	-0.387	1.873	0.046	-1.441*
	(-0.587)	(-0.628)	(-0.575)	(0.210)	(0.010)	(-1.908)
Intercept	0.033**	0.029*	0.033**	0.068	0.030	-0.017
	(2.116)	(1.835)	(2.117)	(1.576)	(1.504)	(-0.952)
Observations	859	859	859	97	418	339
Adjusted R-squared	0.048	0.046	0.047	-0.079	0.032	0.046

Appendix 6: Bidder CARs on financial advisors' proxies by target listing status excluding China

This table presents the OLS regressions of bidder CARs on the financial advisors' proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022, excluding deals featuring China as an acquirer nation. Models (1) to (3) show the results for the entire sample, and models (4), (5), and (6) report the findings for public, private, and subsidiary targets, respectively. Bidder Used Advisor is a dummy variable assigned a value of 1 if the acquirer used a financial advisor in the transaction, and 0 otherwise. Top-Tier is a dummy variable set equal to 1 if the advisor is considered top-tier, and 0 otherwise. A financial advisor is considered top-tier if it belongs to the group of the 8 highest-ranked advisors, based on the total value of transactions advised by each bank. Size is the natural logarithm of the market value of equity of the bidder 30 days before the announcement date. Relative Size is the value of the transaction divided by the bidder's market value of equity 30 days before the announcement. Diversifying Deals is a dummy variable assigned a value of 1 if the macro industries of the bidder and target differ, and 0 otherwise. Leverage is the total debt as a percentage of total assets for the fiscal year-end prior to the announcement. Book-to-Market is the book value of equity at the fiscal year-end preceding the announcement divided by the market value of equity 30 days before the announcement. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) Public	(5) Private	(6) Subsidiary
Bidder Used Advisor	-0.003		-0.002	-0.017	0.001	-0.002
	(-0.955)		(-0.718)	(-1.642)	(0.293)	(-0.347)
Top-Tier		-0.007	-0.006	-0.026*	0.014**	-0.003
		(-1.054)	(-0.829)	(-1.889)	(1.985)	(-0.317)
Size	-0.002***	-0.002***	-0.002***	-0.002	-0.002*	-0.002*
	(-3.238)	(-3.110)	(-3.075)	(-0.655)	(-1.805)	(-1.808)
Relative Size	0.002***	0.002***	0.002***	0.006	0.002***	0.004***
	(4.974)	(4.972)	(4.850)	(0.302)	(7.993)	(3.037)
Diversifying Deals	0.002	0.002	0.002	-0.027*	-0.000	0.005
	(0.567)	(0.627)	(0.545)	(-1.972)	(-0.046)	(1.082)
Leverage	-0.000	-0.000	-0.000	-0.000	0.000	-0.000
	(-0.604)	(-0.580)	(-0.581)	(-0.192)	(0.085)	(-1.018)
Book-to-Market	-0.404	-0.290	-0.313	-1.961	0.209	-1.403*
	(-0.617)	(-0.419)	(-0.451)	(-0.226)	(0.048)	(-1.837)
Intercept	0.030*	0.028*	0.029*	0.084*	0.032*	-0.035**
	(1.872)	(1.761)	(1.799)	(1.859)	(1.662)	(-2.052)
Observations	859	859	859	97	418	339
Adjusted R-squared	0.047	0.048	0.047	-0.022	0.034	0.030

Appendix 7: Bidder CARs on institutional conditions' proxies by target listing status excluding China

This table presents the OLS regressions of bidder CARs on the institutional conditions' proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022, excluding deals featuring China as an acquirer nation. Models (1) to (4) show the results for the entire sample, and models (5), (6), and (7) report the findings for public, private, and subsidiary targets, respectively. Same Legal Origin is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a common origin of legal systems, and 0 otherwise. Gov. Effectiveness assesses perceptions of the quality of the government, and it is determined as a percentile rank that spans from 0 (lowest) to 100 (highest) across all countries. Common Law is a dummy variable assigned a value of 1 when acquirers from common-law countries acquire targets from civil-law countries, and 0 otherwise. For the definition of the control variables, please refer to Appendix 2. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) All	(5) Public	(6) Private	(7) Subsidiary
Same Legal Origin	0.001			0.007	0.019	0.008	0.006
	(0.215)			(1.605)	(1.009)	(1.280)	(0.797)
Gov. Effectiveness		-0.000**		-0.000***	-0.000	-0.001**	-0.000
		(-2.097)		(-2.597)	(-0.296)	(-2.540)	(-1.460)
Common Law			0.001	0.008	0.020	0.001	0.010
			(0.316)	(1.323)	(0.830)	(0.178)	(1.067)
Size	-0.003***	-0.003***	-0.003***	-0.003***	-0.000	-0.003**	-0.003*
	(-3.066)	(-3.689)	(-3.089)	(-3.305)	(-0.060)	(-2.153)	(-1.763)
Relative Size	0.002***	0.002***	0.002***	0.002***	-0.017	0.002***	0.003
	(5.797)	(6.197)	(5.948)	(6.733)	(-0.735)	(7.673)	(1.208)
Diversifying Deals	0.002	0.004	0.002	0.004	-0.021	0.001	0.007
	(0.590)	(1.216)	(0.587)	(1.117)	(-1.348)	(0.287)	(1.326)
Leverage	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000*
	(-1.079)	(-0.668)	(-1.054)	(-1.246)	(-0.533)	(-0.328)	(-1.899)
Book-to-Market	-0.912	-0.294	-0.946	-0.432	14.883	0.959	-1.596
	(-0.853)	(-0.444)	(-0.900)	(-0.303)	(1.324)	(0.200)	(-1.604)
Intercept	0.032*	0.049***	0.033**	0.051***	-0.004	0.075***	0.035
	(1.909)	(3.476)	(1.986)	(3.364)	(-0.076)	(3.404)	(1.299)
Observations	743	826	743	711	71	352	284
Adjusted R-squared	0.040	0.056	0.040	0.051	-0.068	0.072	0.024

Appendix 8: Bidder CARs on innovation proxies by target listing status excluding China

This table presents the OLS regressions of bidder CARs on the innovation proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022, excluding deals featuring China as an acquirer nation. Models (1) to (3) show the results for the entire sample, and models (4), (5), and (6) report the findings for public, private, and subsidiary targets, respectively. Patent is the total number of patent applications (both resident and non-resident) filed in a target country as a percentage of the total number of patent applications filed in a bidder country. R&D is gross domestic expenditures on research and development as a percent of GDP. Size is the natural logarithm of the market value of equity of the bidder 30 days before the announcement date. Relative Size is the value of the transaction divided by the bidder's market value of equity 30 days before the announcement. Diversifying Deals is a dummy variable assigned a value of 1 if the macro industries of the bidder and target differ, and 0 otherwise. Leverage is the total debt as a percentage of total assets for the fiscal year-end prior to the announcement. Book-to-Market is the book value of equity at the fiscal year-end preceding the announcement divided by the market value of equity 30 days before the announcement. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1)	(2)	(3)	(4)	(5)	(6)
	All	All	All	Public	Private	Subsidiary
Patent	-0.000		-0.000	-0.000	-0.000	-0.000
	(-0.730)		(-0.302)	(-0.205)	(-0.085)	(-0.340)
R&D		-0.004*	-0.003	-0.006	-0.004	0.000
		(-1.845)	(-1.579)	(-0.594)	(-1.558)	(0.077)
Size	-0.003***	-0.002***	-0.002***	-0.003	-0.001	-0.003*
	(-3.312)	(-2.743)	(-2.893)	(-0.798)	(-0.864)	(-1.943)
Relative Size	0.002***	0.002***	0.002***	-0.018	0.002***	0.003
	(6.320)	(5.976)	(6.040)	(-0.841)	(7.913)	(0.970)
Diversifying Deals	0.001	0.003	0.003	-0.024	-0.001	0.006
	(0.305)	(0.856)	(0.793)	(-1.109)	(-0.174)	(1.029)
Leverage	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(-0.345)	(-0.318)	(-0.332)	(-0.064)	(-0.546)	(-0.658)
Book-to-Market	-1.211	-1.185	-1.056	6.300	1.159	-2.377**
	(-1.162)	(-1.000)	(-0.898)	(0.554)	(0.257)	(-2.122)
Intercept	0.033**	0.034***	0.038***	0.054	0.038**	0.027
	(2.085)	(2.701)	(3.123)	(1.289)	(2.403)	(1.110)
Observations	758	692	668	69	331	264
Adjusted R-squared	0.043	0.046	0.048	-0.099	0.052	0.010

Appendix 9: Bidder CARs on cultural distance proxies by target listing status (CDI) using an alternative estimation window

This table presents the OLS regressions of bidder CARs on the cultural distance proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022. Abnormal returns are computed using an alternative estimation window of 250 days, beginning 279 days and ending 30 days before the announcement date. Models (1) to (4) show the results for the entire sample, and models (5), (6), and (7) report the findings for public, private, and subsidiary targets, respectively. Same Language is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary language. Same Religion is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary religion, and 0 otherwise. CDI is a composite cultural distance index based on four Hofstede's cultural dimensions (Power Distance, Individualism, Masculinity, and Uncertainty Avoidance). For the definition of the control variables, please refer to Appendix 2. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) All	(5) Public	(6) Private	(7) Subsidiary
Same Language	-0.003			-0.004	-0.022**	0.002	-0.007
	(-0.940)			(-1.283)	(-2.075)	(0.577)	(-1.268)
Same Religion		0.003		0.003	0.003	0.003	0.001
		(0.781)		(0.712)	(0.318)	(0.559)	(0.074)
CDI			-0.006	-0.007	-0.050**	0.009	-0.013
			(-0.979)	(-0.929)	(-2.349)	(0.814)	(-1.214)
Size	-0.002***	-0.002***	-0.002***	-0.002***	-0.000	-0.002*	-0.002*
	(-2.743)	(-2.759)	(-2.594)	(-2.630)	(-0.085)	(-1.838)	(-1.885)
Relative Size	0.002***	0.002***	0.002***	0.002***	-0.010	0.002***	0.002
	(5.107)	(5.248)	(5.048)	(4.977)	(-0.886)	(6.346)	(1.373)
Diversifying Deals	0.004	0.004	0.004	0.004	0.014	-0.002	0.007
	(1.310)	(1.404)	(1.252)	(1.285)	(1.063)	(-0.386)	(1.503)
Leverage	-0.000	-0.000	-0.000	-0.000	0.000	-0.000	-0.000
	(-0.294)	(-0.335)	(-0.276)	(-0.217)	(0.221)	(-0.017)	(-0.568)
Book-to-Market	-1.037	-1.017	-0.997	-1.069	7.863	-3.129	-1.226
	(-1.286)	(-1.290)	(-1.140)	(-1.234)	(0.942)	(-0.751)	(-1.371)
Intercept	0.027*	0.024	0.028*	0.030*	0.052	0.036**	-0.009
	(1.754)	(1.553)	(1.780)	(1.904)	(1.326)	(2.011)	(-0.556)
Observations	1,147	1,147	1,114	1,114	121	511	477
Adjusted R-squared	0.023	0.023	0.023	0.023	0.020	0.028	0.014

Appendix 10: Bidder CARs on cultural distance proxies by target listing status (CDI2) using an alternative estimation window

This table presents the OLS regressions of bidder CARs on the cultural distance proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022. Abnormal returns are computed using an alternative estimation window of 250 days, beginning 279 days and ending 30 days before the announcement date. Models (1) to (4) show the results for the entire sample, and models (5), (6), and (7) report the findings for public, private, and subsidiary targets, respectively. Same Language is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary language. Same Religion is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a primary religion, and 0 otherwise. CDI2 is a composite cultural distance index based on all six of Hofstede's cultural dimensions (Power Distance, Individualism, Masculinity, Uncertainty Avoidance, Long Term Orientation, and Indulgence). For the definition of the control variables, please refer to Appendix 2. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) All	(5) Public	(6) Private	(7) Subsidiary
Same Language	-0.003			-0.004	-0.021*	0.002	-0.006
	(-0.940)			(-1.288)	(-1.911)	(0.569)	(-1.201)
Same Religion		0.003		0.003	0.001	0.004	-0.000
		(0.781)		(0.641)	(0.099)	(0.619)	(-0.056)
CDI2			-0.009	-0.010	-0.047**	0.006	-0.015
			(-1.318)	(-1.223)	(-2.184)	(0.546)	(-1.198)
Size	-0.002***	-0.002***	-0.002***	-0.002***	0.000	-0.002*	-0.002*
	(-2.743)	(-2.759)	(-2.602)	(-2.628)	(0.097)	(-1.904)	(-1.805)
Relative Size	0.002***	0.002***	0.002***	0.002***	-0.010	0.002***	0.003
	(5.107)	(5.248)	(5.115)	(5.045)	(-0.836)	(6.215)	(1.441)
Diversifying Deals	0.004	0.004	0.004	0.004	0.013	-0.002	0.007
	(1.310)	(1.404)	(1.302)	(1.324)	(0.988)	(-0.447)	(1.593)
Leverage	-0.000	-0.000	-0.000	-0.000	0.000	-0.000	-0.000
	(-0.294)	(-0.335)	(-0.283)	(-0.234)	(0.216)	(-0.040)	(-0.581)
Book-to-Market	-1.037	-1.017	-1.014	-1.085	8.737	-3.387	-1.241
	(-1.286)	(-1.290)	(-1.154)	(-1.244)	(0.962)	(-0.819)	(-1.354)
Intercept	0.027*	0.024	0.029*	0.031**	0.047	0.039**	-0.010
	(1.754)	(1.553)	(1.847)	(1.966)	(1.134)	(2.115)	(-0.563)
Observations	1,147	1,147	1,095	1,095	119	501	470
Adjusted R-squared	0.023	0.023	0.025	0.025	0.007	0.028	0.017

Appendix 11: Bidder CARs on geographical distance proxies by target listing status using an alternative estimation window

This table presents the OLS regressions of bidder CARs on the geographical distance proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022. Abnormal returns are computed using an alternative estimation window of 250 days, beginning 279 days and ending 30 days before the announcement date. Models (1) to (3) show the results for the entire sample, and models (4), (5), and (6) report the findings for public, private, and subsidiary targets, respectively. GeoProx is the great circle distance between the capitals of the acquirer and target countries. Same Region is a dummy variable assigned a value of 1 if the countries of acquirers and targets are located in the same region, and 0 otherwise. Size is the natural logarithm of the market value of equity of the bidder 30 days before the announcement date. Relative Size is the value of the transaction divided by the bidder's market value of equity 30 days before the announcement. Diversifying Deals is a dummy variable assigned a value of 1 if the macro industries of the bidder and target differ, and 0 otherwise. Leverage is the total debt as a percentage of total assets for the fiscal year-end prior to the announcement. Book-to-Market is the book value of equity at the fiscal year-end preceding the announcement divided by the market value of equity 30 days before the announcement. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) Public	(5) Private	(6) Subsidiary
GeoProx	-0.000		-0.000	0.000	-0.000	-0.000
	(-1.072)		(-1.054)	(1.115)	(-0.426)	(-1.488)
Same Region		0.000	0.000	0.007	-0.005	0.004
		(0.127)	(0.014)	(0.764)	(-1.263)	(0.995)
Size	-0.002***	-0.002***	-0.002***	-0.000	-0.002*	-0.002*
	(-2.703)	(-2.705)	(-2.691)	(-0.126)	(-1.734)	(-1.938)
Relative Size	0.002***	0.002***	0.002***	-0.009	0.002***	0.002
	(5.031)	(5.179)	(5.028)	(-0.748)	(6.740)	(1.443)
Diversifying Deals	0.004	0.004	0.004	0.011	-0.001	0.007
	(1.334)	(1.338)	(1.334)	(0.877)	(-0.322)	(1.569)
Leverage	-0.000	-0.000	-0.000	0.000	-0.000	-0.000
	(-0.316)	(-0.329)	(-0.317)	(0.212)	(-0.047)	(-0.502)
Book-to-Market	-1.026	-1.004	-1.026	6.818	-2.148	-1.303
	(-1.253)	(-1.253)	(-1.254)	(0.774)	(-0.966)	(-1.427)
Intercept	0.028*	0.025	0.028*	0.015	0.040**	-0.007
	(1.821)	(1.616)	(1.815)	(0.353)	(2.369)	(-0.475)
Observations	1,147	1,147	1,147	126	529	487
Adjusted R-squared	0.023	0.022	0.022	-0.006	0.020	0.018

Appendix 12: Bidder CARs on financial advisors' proxies by target listing status using an alternative estimation window

This table presents the OLS regressions of bidder CARs on the financial advisors' proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022. Abnormal returns are computed using an alternative estimation window of 250 days, beginning 279 days and ending 30 days before the announcement date. Models (1) to (3) show the results for the entire sample, and models (4), (5), and (6) report the findings for public, private, and subsidiary targets, respectively. Bidder Used Advisor is a dummy variable assigned a value of 1 if the acquirer used a financial advisor in the transaction, and 0 otherwise. Top-Tier is a dummy variable set equal to 1 if the advisor is considered top-tier, and 0 otherwise. A financial advisor is considered top-tier if it belongs to the group of the 8 highest-ranked advisors, based on the total value of transactions advised by each bank. Size is the natural logarithm of the market value of equity of the bidder 30 days before the announcement date. Relative Size is the value of the transaction divided by the bidder's market value of equity 30 days before the announcement. Diversifying Deals is a dummy variable assigned a value of 1 if the macro industries of the bidder and target differ, and 0 otherwise. Leverage is the total debt as a percentage of total assets for the fiscal year-end prior to the announcement. Book-to-Market is the book value of equity at the fiscal year-end preceding the announcement divided by the market value of equity 30 days before the announcement. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) Public	(5) Private	(6) Subsidiary
Bidder Used Advisor	-0.000		-0.000	-0.001	0.002	0.001
	(-0.157)		(-0.005)	(-0.116)	(0.449)	(0.244)
Top-Tier		-0.004	-0.004	-0.015	0.005	-0.006
		(-0.640)	(-0.613)	(-1.194)	(0.571)	(-0.584)
Size	-0.002***	-0.002***	-0.002***	0.001	-0.002*	-0.002*
	(-2.692)	(-2.595)	(-2.587)	(0.274)	(-1.679)	(-1.863)
Relative Size	0.002***	0.002***	0.002***	-0.005	0.002***	0.002
	(5.194)	(5.198)	(5.167)	(-0.407)	(6.261)	(1.383)
Diversifying Deals	0.004	0.004	0.004	0.009	-0.001	0.007
	(1.316)	(1.302)	(1.295)	(0.639)	(-0.272)	(1.466)
Leverage	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(-0.331)	(-0.322)	(-0.322)	(-0.007)	(-0.045)	(-0.612)
Book-to-Market	-0.999	-0.958	-0.958	6.318	-2.108	-1.051
	(-1.247)	(-1.167)	(-1.166)	(0.716)	(-0.917)	(-1.179)
Intercept	0.025	0.024	0.024	0.019	0.037**	-0.020
	(1.620)	(1.578)	(1.576)	(0.427)	(2.284)	(-1.436)
Observations	1,147	1,147	1,147	126	529	487
Adjusted R-squared	0.022	0.023	0.022	-0.013	0.018	0.012

Appendix 13: Bidder CARs on institutional conditions' proxies by target listing status using an alternative estimation window

This table presents the OLS regressions of bidder CARs on the institutional conditions' proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022. Abnormal returns are computed using an alternative estimation window of 250 days, beginning 279 days and ending 30 days before the announcement date. Models (1) to (4) show the results for the entire sample, and models (5), (6), and (7) report the findings for public, private, and subsidiary targets, respectively. Same Legal Origin is a dummy variable assigned a value of 1 if the countries of acquirers and targets share a common origin of legal systems, and 0 otherwise. Gov. Effectiveness assesses perceptions of the quality of public services, the quality of civil service and its autonomy from political pressures, the quality of policy design and implementation, and the government's trustworthiness in maintaining such policies. It is determined as a percentile rank that spans from 0 (lowest) to 100 (highest) across all countries. Common Law is a dummy variable assigned a value of 1 when acquirers from common-law countries acquire targets from civil-law countries, and 0 otherwise. For the definition of the control variables, please refer to Appendix 2. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) All	(5) Public	(6) Private	(7) Subsidiary
Same Legal Origin	-0.002			0.008*	0.019	0.009	0.006
	(-0.511)			(1.683)	(1.012)	(1.348)	(0.858)
Gov. Effectiveness		-0.000		-0.000***	-0.000	-0.001**	-0.000*
		(-0.694)		(-2.619)	(-0.177)	(-2.435)	(-1.664)
Common Law			0.005	0.011*	0.023	0.005	0.018*
			(1.020)	(1.934)	(0.985)	(0.643)	(1.783)
Size	-0.003***	-0.002***	-0.003***	-0.003***	-0.000	-0.003**	-0.003**
	(-3.257)	(-2.906)	(-3.234)	(-3.576)	(-0.081)	(-2.517)	(-2.053)
Relative Size	0.002***	0.002***	0.002***	0.002***	-0.020	0.002***	0.002
	(6.307)	(5.073)	(6.450)	(6.651)	(-0.889)	(7.520)	(0.646)
Diversifying Deals	0.002	0.004	0.002	0.003	-0.021	0.004	0.002
	(0.612)	(1.504)	(0.582)	(0.963)	(-1.359)	(0.894)	(0.399)
Leverage	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(-1.024)	(-0.230)	(-0.952)	(-1.125)	(-0.796)	(-0.566)	(-1.229)
Book-to-Market	-1.115	-0.922	-1.060	-0.571	17.119	0.708	-1.824*
	(-1.011)	(-1.116)	(-0.985)	(-0.403)	(1.529)	(0.151)	(-1.771)
Intercept	0.041**	0.036***	0.038**	0.061***	-0.003	0.079***	0.069**
	(2.403)	(2.605)	(2.313)	(3.846)	(-0.065)	(3.536)	(2.135)
Observations	750	1,113	750	717	71	353	289
Adjusted R-squared	0.039	0.026	0.040	0.051	-0.051	0.065	0.023

Appendix 14: Bidder CARs on innovation proxies by target listing status using an alternative estimation window

This table presents the OLS regressions of bidder CARs on the innovation proxies and control variables for a sample of worldwide completed cross-border deals announced between 1987 and 2022. Abnormal returns are computed using an alternative estimation window of 250 days, beginning 279 days and ending 30 days before the announcement date. Models (1) to (3) show the results for the entire sample, and models (4), (5), and (6) report the findings for public, private, and subsidiary targets, respectively. Patent is the total number of patent applications (both resident and non-resident) filed in a target country as a percentage of the total number of patent applications filed in a bidder country. R&D is gross domestic expenditures on research and development as a percent of GDP. Size is the natural logarithm of the market value of equity of the bidder 30 days before the announcement date. Relative Size is the value of the transaction divided by the bidder's market value of equity 30 days before the announcement. Diversifying Deals is a dummy variable assigned a value of 1 if the macro industries of the bidder and target differ, and 0 otherwise. Leverage is the total debt as a percentage of total assets for the fiscal year-end prior to the announcement. Book-to-Market is the book value of equity at the fiscal year-end preceding the announcement divided by the market value of equity 30 days before the announcement. The t-statistics are based on heteroscedasticity-robust standard errors and are displayed in parentheses. The symbols ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. The number of observations and the adjusted R-squared are also presented. All regressions present year and industry fixed effects.

	(1) All	(2) All	(3) All	(4) Public	(5) Private	(6) Subsidiary
Patent	-0.000		-0.000	-0.000	-0.000	-0.000
	(-1.518)		(-0.889)	(-0.013)	(-0.976)	(-0.645)
R&D		-0.004**	-0.004*	-0.009	-0.002	-0.002
		(-2.189)	(-1.853)	(-1.241)	(-0.918)	(-0.728)
Size	-0.002**	-0.002**	-0.002**	-0.001	-0.001	-0.003**
	(-2.485)	(-2.121)	(-2.236)	(-0.361)	(-0.393)	(-2.069)
Relative Size	0.001***	0.001***	0.001***	-0.012	0.002***	-0.000
	(3.752)	(3.596)	(3.536)	(-1.167)	(6.753)	(-0.176)
Diversifying Deals	0.003	0.004	0.003	-0.001	-0.003	0.007
	(0.845)	(1.123)	(0.954)	(-0.079)	(-0.737)	(1.331)
Leverage	-0.000	0.000	0.000	-0.000	-0.000	-0.000
	(-0.178)	(0.332)	(0.063)	(-0.124)	(-0.189)	(-0.189)
Book-to-Market	-1.442	-1.573	-1.375	8.213	-0.194	-2.436**
	(-1.211)	(-1.112)	(-0.970)	(0.710)	(-0.039)	(-2.265)
Intercept	0.028*	0.029**	0.033***	0.024	0.026	0.045**
	(1.807)	(2.464)	(2.898)	(0.699)	(1.595)	(2.246)
Observations	1,024	945	919	91	424	400
Adjusted R-squared	0.020	0.023	0.022	-0.043	0.036	0.006

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