

Cross-Border Mergers and Acquisitions: The Interplay of Cultural Differences
and Prior M&A Activity

Fatos Radoniqi[‡]

Roger White[†]

Abstract: We examine the extent to which cross-border mergers and acquisitions (M&A) are affected by national cultural differences (i.e., cultural distance) and prior M&A activity. Our empirical specification follows the standard gravity framework. We estimate a series of Tobit models using bilateral data that represent 9,398 mergers involving firms in 31 countries over three periods (1995-1998, 2005-2008, and 2017-2020). We find a negative but declining influence of cultural distance on cross-border M&A activity. We also find merger activity involving firms in a particular country pair is positively related to subsequent M&A activity and that this experience counteracts the hindering influence of cultural differences, which becomes insignificant after approximately ten prior mergers. Our findings are robust to sample composition, choice of periods examined, alternative measures of cultural distance, alternative classifications of prior M&A activity, model specification, and estimation technique.

JEL Classifications: G15, G34, Z10.

Keywords: Cross-border mergers and acquisitions (M&A), cultural distance, learning by doing/observing practice, World Values Survey (WVS).

[‡] Contact author. Associate Professor of Finance, Whittier College, 13406 E. Philadelphia St., Whittier, CA 90608;
Phone: (562) 907-5498; Email: Radoniqi@whittier.edu.

[†] Professor of Economics, Whittier College.

1. Introduction

During the past decade, in the typical year, mergers and acquisitions (M&A) resulted in approximately \$4.3 trillion in assets (in 2022 U.S. dollars) changing ownership globally (Emmerich et al. 2023). Since the early 1990s, cross-border mergers have constituted roughly one-third of total M&A activity, yet most studies have concentrated on domestic deals (Erel et al. 2024). In theory, cross-border mergers, just like domestic ones, are initiated after the acquiring firm's managers perceive that the combined firm is more valuable than the sum of the firms' individual values. Unlike domestic mergers, however, cross-border M&A activity involves additional factors that may impede merger activity (Erel et al. 2012).

One factor that may increase the costs of cross-border mergers is the cultural differences (i.e., cultural distance) between the countries of acquiring and target firms. Ahern et al. (2015), for example, finds that greater cultural distance likely results in higher post-merger coordination costs, which hinder cross-border mergers. Integrating employees from different cultures and navigating diverse legal and political landscapes are key hurdles that an acquiring firm must overcome.¹ At the same time, prior merger activity between firms in a given country pair can generate information that reduces contracting costs and facilitates subsequent merger flows between the two countries. If so, prior cross-border merger activity may moderate, in whole or in part, the anticipated negative effects of cultural differences. To our knowledge, the literature has not addressed this possibility.

To test our hypotheses, we employ the gravity framework and examine bilateral data for a sample of 31 countries during three distinct periods: 1995-1998, 2005-2008, and 2017-2020.²

¹ The notion that cultural distance can present difficulties for mergers is consistent with the economics literature that emphasizes the role of culture and trust in business relationships (e.g., Guiso et al. 2006).

² We restrict our study to these periods as they correspond with our measure of cultural distance, which is produced from data provided by the World Values Surveys.

Using four related, yet distinct, measures of cross-border M&A flows, we consider the relationship between a time-varying composite measure of cultural distance and M&A activity. Our dependent variable series include the number of M&A deals between country i acquirers and country j targets in year t , the dollar volume of the same M&A deals, the ratio of the number of M&A deals with target country j and the total number of cross-border deals involving country i acquirers, and the volume of deals with target country j relative to the total volume of cross-border deals of acquirers in country i . Our study is the first to employ a time-varying measure of cultural distance when examining the influence of cultural differences on M&A activity. Constructed from World Values Survey (WVS) data, our measure of cultural distance represents differences in values, beliefs, norms, and traditions across societies.³

Our analysis extends the literature in several ways. First, by using a time-varying measure of national cultural distance, we examine how the relationship between cultural distance and cross-border M&A activity has changed over time. Second, we consider whether prior M&A activity between firms in two countries facilitates subsequent M&A deals between the countries. Lastly, we examine the extent to which prior cross-border M&A activity at the country pair level offsets the merger-hindering effects of cultural distance. Thus, we provide substantial new information on this topic.

Our results suggest that national cultural differences negatively affect cross-border M&A activity by decreasing the number and value of deals both in total and as a share of global merger activity. We show that this relationship has declined over time. We also identify a positive influence of prior cross-border M&A activity involving a country pair on subsequent merger

³ While our cultural distance measure differs from those that assess firm or organizational culture, like Hofstede or GLOBE, when considering the robustness of our findings, we utilize a measure of cultural distance that is constructed using Hofstede's cultural dimensions, as well as measures of religious distance and genetic distance.

activity. This is consistent with the notion that cross-border merger activity results in knowledge accumulation among involved firms via a learning by doing process and/or diffusion of related knowledge to other firms through a learning by observing mechanism. In both instances, prior activity may reduce related costs and facilitate additional cross-border mergers. Lastly, we demonstrate that prior M&A experience at the country pair level offsets the negative effect of cultural distance. The implication is that, as cross-border merger activity increases, the knowledge created in the process continues to diffuse among the acquiring country firms and the role of cultural distance is diminished, perhaps becoming insignificant.

In the next section, we review the relevant literature and introduce our hypotheses. This is followed, in Section 3, by the presentation of our empirical model, data sources, estimation strategy, and summary statistics. Our primary results and robustness checks are detailed and discussed in Section 4. Section 5 concludes.

2. Literature Review

A considerable literature has explored the determinants, timing, related processes, and economic effects of M&A activity. Mulherin et al. (2017) conducted a comprehensive review of the M&A literature since 2011 and, owing to the extensiveness of the literature, included a review of related earlier surveys.⁴ The authors identify a significant thematic cluster emerging from the finance perspective that concerns cross-border mergers and acquisitions where geographic, cultural, institutional, and other differences between the countries of acquiring and target firms are especially important.⁵

⁴ Indicative of the large number of studies on the topic, the authors refer to their review of prior surveys as their “survey of the surveys”.

⁵ Erel et al. (2024) offer a more general survey of studies on cross-border M&As.

Given the breadth of the literature, we focus our review on prior works that fall within the narrower scope of our study. Specifically, we concentrate on those studies that examine the potential impact of national cultural differences on cross-border M&A activity and on works that consider how prior merger experiences may produce information that reduces related transaction costs and, thus, facilitates subsequent cross-border M&A activity. Following our review of this literature, we present the hypotheses that we evaluate.

2.A Cultural Distance and Cross-border Mergers and Acquisitions

A growing number of studies have explored the effects of cross-country differences in values, beliefs, norms, and traditions (i.e., culture) on the likelihood that cross-border M&A deals occur, the size of such deals, the length of time needed for deal consummation, post-deal outcomes, etc. Many studies have identified negative relationships between national cultural differences and cross-border M&A activity. For instance, using data from the World Values Survey (WVS), Ahern et al. (2015) identifies a significant negative relationship between M&A flows and cultural distance. The authors report a detrimental impact of cultural differences on merger volume and synergy gains. Lawrence et al. (2021) employs data from Hofstede (1980) and, separately, the WVS to represent cultural differences, confirming a negative role of cultural distance on M&A activity.

Several studies have also explored the role of national culture on post-deal performance. Renneboog and Vansteenkiste (2019) provides an excellent review of the related literature. Evaluating a variety of performance measures, such as cumulative abnormal returns, buy-and-hold abnormal returns, sales growth, among others, prior studies have reached a variety of conclusions, some of which are contradictory. For example, Datta and Puia (1995), Chakrabarti,

et al. (2009), Aybar and Ficici (2009), and Al Rahahleh and Wei (2013) report negative relationships between national cultural differences and M&A performance. This is consistent with studies that show a negative relationship between cultural distance and M&A activity.

While many studies have employed composite measures of cultural differences based on Hofstede (1980), Project GLOBE (House et al., 2004), etc., several studies have considered the influences of more specific measures of cross-societal differences. For instance, Siegel et al. (2011) found a strong, significant, and negative effect of egalitarianism distance, constructed from Hofstede's cultural dimensions⁶, on FDI flows and the value of M&A transactions. Similarly, Rozen-Bakher (2018) reports significant, yet mixed, relationships between Hofstede's Power Distance Index and Masculinity vs. Femininity cultural dimensions and the integration, synergy, and profitability of cross-border M&As. Employing WVS data, Ahern et al. (2015) focuses on the dimensions of trust, hierarchy, and individualism, finding that each reduces merger volumes and synergy gains.⁷

2.B Learning by Doing and Learning by Observing

The results of prior studies generally indicate a negative relationship between cultural differences and cross-border M&A activity. The rationale for this relationship is that foreign market entry involves costs related to gathering information, negotiation, and contract enforcement (Kogut and Zander, 1993). All else equal, greater cultural differences magnify these costs and/or result in additional distinct costs (Kogut and Singh, 1988). To reduce costs

⁶ Among studies involving cultural differences and cross-border M&A activity, Hofstede's cultural dimensions are the most used resource for representing cultural distance (Karolyi, 2016).

⁷ Liu and Pursiainen (2018) also employ data from the World Values Survey to consider the role of trust, finding that reduced trust (i.e., less "cultural trust") corresponds with a lower likelihood of deal completion and longer completion times for consummated deals. The authors attribute this to a higher complexity in deal execution.

associated with cultural distance, firms may enhance their knowledge and organizational capabilities by drawing valuable insights from their past experiences or by observing other firms' M&A experiences.

Beyond an intuitive basis, there is empirical evidence to support the notion that prior cross-border activity offsets, in part if not wholly, the hindering influence of cultural differences. Numerous studies have examined the importance of learning for cross-border acquirers and have proposed different channels through which knowledge is diffused. Francis et al. (2014) shows that firms learn by observing their peers' prior acquisition experience and produce better performing acquisitions of their own. This relationship is most pronounced for acquirers learning from their industry (as opposed to country-level) peers and in deals between firms in culturally-distant countries.⁸ The same is true for firms with their own past international M&A experience. According to Dikova and Sahib (2013), these firms are more likely to be aware of cross-border acquisition pitfalls and are more skilled at resolving acquisition-related conflicts, ultimately leading to higher acquisition performance. Collins et al. (2009) finds that a firm's own M&A experience, especially international M&A experience, has a positive effect on later M&A activity.

Stroup (2017) proposes a specific mechanism through which knowledge of cross-border M&A-related issues is diffused, showing that corporate directors' general (i.e., country-non-specific) cross-border investment experience increases their current firms' propensities to acquire foreign companies and that this experience is particularly important for acquisitions of firms in culturally-distant countries. More recently, Agcayazi et al. (2024) finds that U.S. firms that have

⁸ Del Gatto and Mastinu (2021) reports that firms' M&A decisions are influenced by experience effects related to knowledge accumulation, while Shenkar (2012) also suggests that knowledge gained from previous cross-border M&A activities can offset some of the higher transaction costs associated with cultural differences.

CEOs with international backgrounds are more likely acquire overseas targets.⁹ Reaching a similar, although more general, conclusion, Popli et al. (2016) demonstrates how prior experience in culturally similar countries can create a “cultural experience reserve” that mitigates the negative impact of cultural differences on cross-border deal abandonment.

2.C Hypotheses Development

Given the results of prior studies, we anticipate a negative relationship between cultural distance and cross-border M&A activity. The related literature, however, has not considered variation in this relationship over time. Earlier works also identify learning by doing and learning by observing as important factors in the context of cross-border M&As, with most studies focusing narrowly on firms’ prior experience and/or the experience of their executives.¹⁰ Lastly, to our knowledge, no study has examined the effect of prior merger activity in relation to the influence of cultural differences on cross-border M&A activity. To examine these potential relationships, we evaluate the following hypotheses:

H₁: There is a significant negative influence of national cultural differences on firms’ cross-border M&A activity.

H₂: The negative influence of cultural differences on cross-border M&A activity has declined over time.

⁹ Ding et al. (2021) shows that U.S. firms have a significantly higher probability of acquiring targets in countries where their CEOs have country-specific knowledge. Similarly, Wang and Yin (2018) report that firms are more likely to acquire a target if it is headquartered in the country where the acquiring firm’s CEO completed their undergraduate and graduate studies.

¹⁰ An exception is Francis et al. (2014) which explores the role of prior cross-border M&A experience at the national level but focuses on the performance (as opposed to incidence) of a limited sample of 315 deals involving American acquirers and targets in developing countries.

H₃: Prior acquisition activity involving firms in a given country pair facilitates subsequent M&A deals involving firms in the same country pair.

H₄: Prior cross-border M&A activities offset, either in whole or in part, the negative influence of national cultural distance, thus, further facilitating subsequent cross-border M&A activity.

In the next section, we present our data, the empirical model, and the estimation strategy used to address these hypotheses.

3. Data and Methods

3.A Dependent Variables

Our dependent variables are constructed using data from the Securities Data Company (SDC) Platinum database. These variables include the number of announcements of cross-border mergers and acquisitions completed between 1990 and 2022, with transaction values exceeding \$1 million, and where the acquirer has no ownership stake in the target before the transaction.¹¹ We do not limit our sample to include only transactions at/above a particular equity stake; however, we exclude leveraged buyouts, spinoffs, recapitalizations, self-tender offers, exchange offers, repurchases, and privatizations, as well as deals in which the target or the acquirer is a government agency.¹² We define a merger as a cross-border deal if the target's nation is different from that of the acquirer firm's ultimate parents. In addition, we collect several deal-specific

¹¹ The last restriction is to minimize the contamination of the results by the inclusion of firms that already have ownership in the target country.

¹² When testing the robustness of our results, we limit our sample to only majority stake deals and then to transactions where 100 percent of the target firm is acquired.

items from the database, including the announcement and completion dates for each deal, the names of the acquirer and the target, the ultimate parent, public status, primary industry, and country of domicile. We also collect the deal value in dollar terms, the fraction of the target firm owned by the acquirer before and after the acquisition, the method of payment, deal status, deal type, and other deal characteristics.

Our first dependent variable, $CBMA_count$, is the number of M&A deals between country i acquirers and country j targets in year t . The second measure, $CBMA_value$, is the dollar volume of the same M&A deals. Our third measure, $CBMA\%_count$, represents the ratio of the number of M&A deals with target country j and the total number of cross-border deals that involve country i acquirers (i.e., $CBMA_{ij_count}/CBMA_{im_count}$) where m indicates all countries in the world, including country j . Our last measure, $CBMA\%_value$, is similar to $CBMA\%_count$ except it uses the total deal value to calculate the volume of deals between two countries relative to the total volume of cross-border deals, in all countries, of acquirers in country i (i.e., $CBMA_{ij_value}/CBMA_{im_global_value}$).

Each of the dependent variable series has its merits and drawbacks. The first measure, $CBMA_count$, is the simplest way to capture the number of successful cross-border mergers. The downside of this metric is its inability to differentiate between large deals, where acquirers may find it beneficial to expend considerable resources to counter the effect of cultural distance, and small deals, where such resources may be limited. Our second measure, the dollar volume of M&A (i.e., $CBMA_value$) captures the size of the investment (or the commitment of resources from country i acquirers); however, it does not account for the number of mergers, which is important in our context. Our third and fourth measures – $CBMA\%_count$ and $CBMA\%_value$, respectively – do not directly address the shortcomings of the first two variables but still provide

valuable context by measuring the size (i.e., in number and dollar value, respectively) of cross-border M&A activity involving a country pair relative to the global M&A activity of the acquiring country. This allows us to capture the distribution of an acquiring country's M&A activity by target country. When performing our estimations, the first two dependent variable series discussed here are log-transformed while the second two series are not.

3.B Measuring National Cultural Distance

Our cultural distance measure is derived from World Values Survey (WVS) data, which covers 120 countries, representing nearly 95 percent of the global population. Nationally representative surveys are conducted within a single year during multi-year waves, with varying sets of countries surveyed in each wave. To analyze the relationship between cultural distance and merger activity evolution over approximately two decades, we focus on WVS waves 3 (1995-1998), 5 (2006-2009), and 7 (2017-2020), covering 31 countries for which data are available in all three periods. We slightly adjust wave 3 to include 11 countries surveyed in 1999. Table 1 lists the countries in our sample.

Instead of focusing on a specific WVS question(s), as did Lawrence et al. (2021), Ahern et al. (2015) and Siegel et al. (2011), we estimate cultural distances between country pairs in our data using a composite cultural distance measure that is based on two dimensions: Traditional vs. Secular-Rational authority (TSR) and Survival vs. Self-Expression values (SSE).¹³ The values for these dimensions are generated through the application of factor analysis to a common subset of WVS questions and are provided as part of the WVS data. Using the mean values for the

¹³ See Inglehart and Baker (2000) for an overview of the WVS data and detailed explanations of the TSR and SSE dimensions.

Table 1

The columns represent the countries of the acquiring companies while the rows represent those of the target companies. The entries are therefore the number of deals in a particular country pair. The totals exclude domestic mergers and hence represent the number of cross-border mergers to and from a particular country. Our sample period is for the following three periods: 1995-1998, 2005-2008, and 2017-2020.

	Acquiring countries																														
	ARG	AUS	AUT	BRA	CHE	CHL	CZE	DEU	DNK	ESP	EST	FIN	FRA	GRC	HRV	HUN	ISL	ITA	JPN	LTU	MEX	NLD	NOR	NZL	POL	PRT	ROU	SVK	SVN	SWE	USA
Argentina (ARG)	.	4	3	30	7	18	0	5	0	38	0	0	15	2	0	0	0	12	1	0	10	5	0	2	0	0	0	0	0	1	94
Australia (AUS)	0	.	2	3	34	4	0	41	2	13	0	4	38	0	0	0	0	17	83	0	2	32	9	67	0	1	0	0	0	19	432
Austria (AUT)	0	2	.	0	5	0	0	26	2	5	0	2	5	0	0	2	0	5	3	0	0	4	4	1	2	0	0	0	0	7	25
Brazil (BRA)	18	9	1	.	25	13	0	17	3	39	0	4	41	0	0	0	0	19	18	0	19	18	9	0	0	26	0	0	0	4	162
Switzerland (CHE)	0	4	4	2	.	0	0	25	10	5	0	5	18	0	0	0	0	15	9	0	0	5	3	2	2	0	0	0	0	12	87
Chile (CHL)	5	12	0	5	5	.	0	4	0	23	0	0	5	0	0	0	0	3	7	0	5	4	1	2	0	0	0	0	0	0	42
Czech Rep. (CZE)	0	1	5	0	2	0	.	9	5	4	0	0	4	0	0	1	0	4	3	0	0	6	1	0	11	1	0	0	0	4	17
Germany (DEU)	0	29	34	1	57	1	2	.	21	17	1	19	76	3	1	0	3	47	37	0	1	39	17	0	14	5	0	0	0	73	360
Denmark (DNK)	0	5	1	0	1	0	0	17	.	1	0	6	7	0	0	0	5	5	7	0	0	8	35	1	0	1	0	0	0	68	48
Spain (ESP)	0	17	2	1	27	3	1	45	3	.	0	3	99	2	0	0	2	58	12	1	8	32	18	1	4	27	1	1	1	24	187
Estonia (EST)	0	0	0	0	2	0	0	1	1	1	.	5	3	1	0	0	0	0	1	1	0	1	1	0	0	0	0	0	9	1	
Finland (FIN)	0	4	1	0	0	0	0	9	8	4	3	.	10	0	0	0	5	1	7	1	0	8	19	0	0	0	0	0	0	99	31
France (FRA)	0	19	2	2	49	1	1	71	6	57	1	4	.	0	0	0	5	58	29	0	3	42	19	2	0	6	0	0	0	27	333
Greece (GRC)	0	0	0	0	6	0	0	5	1	0	0	0	3	.	0	0	0	6	2	0	0	1	3	0	2	1	0	0	0	6	27
Croatia (HRV)	0	0	0	0	0	0	0	3	0	0	0	0	0	.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Hungary (HUN)	0	1	4	0	3	0	1	17	1	1	0	1	9	0	0	.	0	0	0	0	0	8	0	0	4	0	1	0	0	1	16
Iceland (ISL)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	.	0	1	0	0	0	1	0	0	1	0	0	0	1	0
Italy (ITA)	0	15	9	2	25	0	1	41	5	38	0	8	90	6	0	2	0	.	15	0	0	22	7	1	6	1	0	0	1	22	158
Japan (JPN)	0	10	0	1	5	0	0	15	0	3	0	0	8	0	0	0	0	1	.	0	0	8	1	2	0	0	0	0	4	129	
Lithuania (LTU)	0	0	0	0	0	0	0	2	3	1	4	4	1	0	0	0	0	0	0	0	1	5	0	4	0	0	0	0	4	4	
Mexico (MEX)	1	4	0	2	2	3	0	3	2	22	0	0	3	0	0	0	0	7	4	0	.	4	0	1	0	0	0	0	0	3	115
Netherlands (NLD)	0	16	2	2	9	1	0	31	9	6	0	5	42	1	0	1	2	14	18	0	0	.	8	0	0	0	0	0	1	32	163
Norway (NOR)	0	8	0	1	7	0	0	9	15	1	0	23	9	2	0	0	1	3	3	1	1	7	.	0	2	1	0	0	0	88	52
New Zealand (NZL)	0	164	1	0	3	0	0	1	1	0	0	0	3	0	0	0	0	0	7	0	1	6	0	.	0	0	0	0	1	59	
Poland (POL)	0	9	15	0	3	0	10	27	15	11	9	4	23	1	1	0	0	9	2	1	1	17	7	0	.	5	0	1	1	11	40
Portugal (PRT)	0	3	0	3	2	0	0	9	1	51	0	0	19	0	0	0	0	8	5	0	0	1	2	0	2	.	0	0	0	1	19
Romania (ROU)	0	0	9	0	3	0	2	3	2	3	1	0	5	8	0	1	0	6	0	0	0	10	0	0	8	2	.	0	0	3	16
Slovakia (SVK)	0	1	1	0	0	0	3	4	0	0	1	2	1	1	1	0	0	1	0	0	0	3	0	0	0	0	0	0	0	1	0
Slovenia (SVN)	0	1	9	0	0	0	0	1	0	0	0	0	0	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	1	4	
Sweden (SWE)	0	14	5	0	10	0	0	34	40	8	0	56	18	0	0	0	3	3	5	0	0	15	105	0	1	1	0	0	0	.	111
United States (USA)	7	346	14	22	169	5	1	256	41	72	0	30	243	5	1	0	8	71	372	0	30	131	42	17	2	4	1	0	0	118	

dimensions, the cultural distance between each country i and country j during period k is

$$\text{calculated as } CDIST_{ijk} = \sqrt{(\overline{TSR}_{ik} - \overline{TSR}_{jk})^2 + (\overline{SSE}_{ik} - \overline{SSE}_{jk})^2}.$$

A greater cultural distance signifies differences in shared values, beliefs, norms, and traditions, potentially raising merger-related costs and hindering cross-border M&A activity. This broad measure represents societal differences affecting M&A activity rather than specific firm or national cultures. Survival-oriented societies emphasize hard work, security, and traditional gender roles, while self-expression-oriented societies value cultural diversity and tend to hold opposing views. Traditional societies prioritize authority, family, and religious adherence, contrasting with secular-rational societies that emphasize rational-legal norms and economic achievement (Inglehart and Baker, 2000).

To analyze the impact of cultural differences on cross-border merger activity, we examine a sample of 9,398 cross-border mergers across the 31 countries during three 4-year periods, totaling 11,160 country pair-years.

3.C Prior M&A Activity and Additional Explanatory Variables

To track the number of prior deals, for each country pair, we collect information on the number of mergers (following the abovementioned filter) that occurred between 1972 and 1989.¹⁴ To generate our measure of prior M&A activity, we then update this measure for each year since 1989 by adding the annual number of deals.

Additional explanatory variables are defined in Appendix A. We include potential determinants of cross-border M&A activity that have been used in prior studies that have also

¹⁴ We are limited to this period, since the SDC Platinum database only provides data on cross-border M&A activities since 1972.

employed the gravity framework, such as the (absolute value of the) difference in corporate tax rates between acquirer and target countries, geodesic distance, whether the two countries share a common religion, a common official language, a common legal system (post-transition), and a common border.¹⁵ We also control for other variables that have been shown to play a role in explaining cross-border investments such as exchange rates¹⁶ (Froot and Stein, 1991), double taxation treaties (Barthel et al. (2010), Huizinga and Voget (2009)), bilateral investment treaties (Ahern et al. (2015), Bhagwat et al. (2021)), and corruption (Bris and Cabolis (2008), Alimov and Officer (2017)). Lastly, we account for the public status of the target firm (the fraction that involves a public, private, or subsidiary target) to control for the different post-deal outcomes associated with each that have been demonstrated in the literature (see Fuller et al. (2002)).

3.D Summary Statistics

Table 2 presents summary statistics of the variables used in our analysis for both the full sample and each of the three periods. From the table we see that the average number of mergers per year increased from period 1 to period 2 before declining in period 3. The number and dollar volume of mergers in both periods 1 and 2 was significantly lower and higher, respectively, than the full sample mean. Mergers in the average country pair represent less than two percent of the overall cross-border merger activity in the acquiring countries. This indicates that acquiring

¹⁵ Common religion, language, or legal system may reflect some degree of cultural proximity between two countries. Erel et al. (2012), for instance, employs shared language and shared religion as proxy variables for cultural similarity across countries. Considering this possibility, we calculate pairwise correlation coefficients for our measure of cultural distance and each of these explanatory variables. The values are all negative, ranging from -0.14 to -0.23; thus, we conclude that the variables can be included, alongside our measure of cultural distance, in our empirical model.

¹⁶ We include two exchange rate-related variables. The first represents exchange rate growth over time, while the second is a measure of exchange rate volatility.

Table 2

Summary statistics.

This table presents means and standard deviations for each variable for the full sample as well as the three periods: 1995-1998, 2005-2008, and 2017-2020. Observations are at the country-pair-year level. Mergers include all public, private, and subsidiary targets and acquirers from SDC Thomson database. All the variables are defined in Appendix A. Cultural distance is a composite measure constructed using data from the World Values Survey. There are 11,160 country-pair-year observations. Acquirer and target nations are listed in Table 1.

	Full sample		Period 1		Period 2		Period 3	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Number of CB M&A	0.842	3.304	0.678***	3.086	1.058***	3.925	0.790	2.784
Volume of CB M&A (in 2020 \$billions)	0.330	2.191	0.199***	1.799	0.435**	2.562	0.356	2.140
% of Global CB number of M&A (percent)	1.728	6.552	1.480**	6.472	1.823	6.519	1.882	6.658
% of Global CB value of M&A (percent)	1.775	8.641	1.456**	7.814	1.862	8.824	2.008	9.218
Cultural distance	1.657	0.856	1.667	0.802	1.697**	0.848	1.609***	0.912
Number of prior mergers (acquiring nation)	15.807	71.414	6.738***	37.735	15.371	64.794	25.313***	97.508
Difference in corporate tax rate (abs. value)	8.188	6.342	9.257***	7.638	8.384*	5.819	6.925***	5.071
Imports ratio	3.788	13.731	2.050***	7.701	4.186	13.563	5.120***	17.801
Bilateral investment treaty	0.368	0.482	0.286***	0.452	0.439***	0.496	0.380	0.485
Double-tax treaty	0.531	0.499	0.319***	0.466	0.569	0.495	0.705***	0.456
M&A private target fraction	0.065	0.227	0.047***	0.192	0.085***	0.257	0.062	0.224
M&A public target fraction	0.037	0.167	0.041	0.181	0.043*	0.178	0.026***	0.138
Exchange rate volatility	0.022	0.042	0.033***	0.068	0.017***	0.010	0.017***	0.016
Exchange rate growth	0.051	0.869	0.143***	1.494	0.002***	0.062	0.007***	0.128
Difference in corruption (acquirer - target)	0.000	1.272	0.000	1.264	0.000	1.285	0.000	1.267
Geodesic distance	5.965	5.635
Shared border	0.073	0.260
Same language	0.034	0.182
Same legal system	0.286	0.452
N	11,160		3,720		3,720		3,720	

".." indicates variable is constant across periods. "****", "***", and **" denote that period-specific mean values are significantly different from the corresponding full sample mean values at the 1%, 5%, or 10% levels, respectively.

firms are striking deals in a variety of foreign countries. Average cultural distance has effectively remained constant across the three periods. At the same time, the standard deviation has gradually increased. Looking at the mean values for the remaining time-varying explanatory variables, we see significant variation in all series.

3.E Empirical Model and Estimation Strategy

Our empirical specification, presented as equation (1), follows a long tradition of scholarship in finance that uses the gravity framework to explain the role of culture distance in financial decision-making.¹⁷ As noted, we employ four different measures of annual cross-border M&A activity between country i and country j as our dependent variable series (*M&A incidence*). Our primary variable of interest ($CDIST_{ijk}$) represents national cultural distances. Additional explanatory variables are included within the vector X . To capture time-varying acquiring and target country fixed effects, we include the vectors Φ and Ψ . The subscripts i and j represent the countries of acquiring and target firms, respectively, while k identifies our three time periods (i.e., 1995-1998, 2005-2008, and 2017-2020) and t represents the year. ε is a stochastic error term.

$$M\&A \text{ incidence}_{ijt} = \alpha_0 + \beta_1 \ln CDIST_{ijk} + \beta_X X_{ijt} + \beta_\Phi \Phi_{it} + \beta_\Psi \Psi_{jt} + \varepsilon_{ijkt} \quad (1)$$

Following the gravity framework, we use logarithmic transformations, adding a constant (one) to variables as necessary before the transformation. As suggested by Baldwin and Taglioni

¹⁷ Karolyi (2015) provides a thorough survey of this literature.

(2006), we include both time-varying acquirer country dummies and time-varying target country dummies. We do not use country-pair dummies as this would absorb the within-period effects of cultural differences between countries. Given the high percentage of country pairs in our sample for which annual dependent variable values are equal to zero, we utilize the Tobit estimation technique. More specifically, we use a pooled Tobit model with standard errors clustered by country pair, which are robust to serial correlation.

4. Results

4.A Primary Results

To address our research questions, we examine four variants of equation (1), each employing a dependent variable that represents a different facet of cross-border M&A activity. We begin with our first hypothesis which posits a significant negative influence of national cultural differences on firms' cross-border M&A activity. The results in Table 3 confirm the findings of many prior studies, showing negative relationships between cultural distance and deal completion (columns (1) and (3)) and deal size (columns (2) and (4)).¹⁸ All else held constant, as the cultural distance increases by one percent, the expected percentage of global mergers accounted for by the typical country pair in terms of number (deal value) is 0.039 (0.041) percentage points lower (columns (1) and (2)). Similarly, a one percent increase in cultural distance corresponds with 0.165 percent fewer expected mergers, and the total value of mergers between the pair is 0.98 percent lower (columns (3) and (4)). Regardless of the measure of merger activity considered, consistent with the notion that greater cultural distance corresponds

¹⁸ Green (2004) notes that a large number of dummy variables may affect the estimates in the Tobit regression. We repeat the estimations for which results are provided in Table 3 while using OLS and find the same patterns of coefficient signs that are statistically significant. Results are available upon request.

Table 3

Cultural distance and merger activity.

Tobit regression of a gravity model. All the variables are defined in Appendix A. The sample covers periods between 1995-1998, 2005-2008, and 2017-2020. Cultural distance is a composite measure constructed using data from the World Values Survey. $|\Delta|$ indicates the absolute difference between the acquirer and target nation variables. A constant is included in each specification but not reported in the table. Acquirer country-year and target country-year effects are included in each specification. The standard errors in all estimations are clustered by country pair. Significance at 10%, 5%, and 1% is indicated by *, **, and *** with *t*-statistic in parentheses.

	Dependent Variable			
	CBMA% Count	CBMA% Value	In CBMA Count	In CBMA Value
ln (1+CDIST)	-0.039*** (-4.02)	-0.041*** (-3.15)	-0.165*** (-3.13)	-0.980*** (-4.20)
ln (1+ Number of Prior M&A)	0.036*** (8.03)	0.045*** (8.11)	0.419*** (21.05)	1.340*** (15.75)
ln (1+ $ \Delta$ Corp. Tax)	-0.003 (-0.83)	0.000 (0.06)	-0.040** (-2.03)	0.057 (0.65)
ln (Imports)	-0.275*** (-3.51)	-0.463*** (-4.57)	0.864** (1.99)	0.264 (0.16)
Double-tax treaty	0.005 (0.85)	0.011 (1.49)	0.047 (1.47)	0.049 (0.37)
Bilateral investment treaty	0.000 (0.04)	-0.003 (-0.27)	0.045 (1.01)	0.027 (0.13)
M&A private target fraction	0.182*** (13.74)	0.192*** (12.97)	1.084*** (27.23)	4.653*** (22.83)
M&A public target fraction	0.153*** (13.21)	0.245*** (14.70)	1.066*** (21.86)	5.434*** (23.06)
Exchange rate volatility	0.610 (1.15)	0.428 (0.58)	4.761 (1.60)	18.148 (1.27)
Exchange rate growth	0.059 (0.77)	0.133 (1.31)	0.163 (0.67)	0.685 (0.54)
ln (Geodesic distance)	-0.053*** (-6.35)	-0.065*** (-7.07)	-0.173*** (-6.43)	-0.939*** (-7.41)
Corruption distance	0.092** (2.55)	0.237*** (3.79)	0.365* (1.73)	2.121** (2.07)
Same border	0.023* (1.76)	0.019 (1.19)	0.002 (0.03)	0.346 (1.54)
Same language	0.012 (0.88)	0.010 (0.60)	0.049 (0.79)	0.071 (0.32)
Same legal system	0.025*** (3.60)	0.027*** (3.10)	0.110*** (3.39)	0.297** (1.98)
Pseudo-R ²	1.222	0.964	0.588	0.377
N	11,160	11,160	11,160	11,160

with higher merger-related transaction costs, we identify a statistically significant reduction in merger activity.

To demonstrate the economic significance of these findings, we estimate the changes in our dependent variables conditional on an assumed one standard deviation increase in our

cultural distance variable. Evaluated at their mean values while holding all else constant, the assumed increase in cultural distance would result in the *CBMA%_count* and *CBMA%_value* series decreasing from their respective mean values of 1.728 percent and 1.775 percent to zero. More modest changes are observed for the *CBMA_count* and *CBMA_value* variables. Given the assumed increase in cultural distance, the mean value of the *CBMA_count* variable decreases from 0.842 to 0.7702 (i.e. a decrease of 8.52%), while the *CBMA_value* variable declines from its mean value of \$330 million to \$162.93 million (50.63%).

The coefficients of the remaining variables in the models are largely consistent with the predictions of the gravity model. Of note, the coefficients of the variable that represents the influence of prior mergers on subsequent merger activity are positive and statistically significant in all four estimations. These coefficients correspond with our third hypothesis: prior acquisition activity involving firms in a given country pair facilitates subsequent M&A deals involving firms in the same country pair. The results support the expectation that prior merger activity at the country pair level may result in knowledge gains that facilitate subsequent merger activity.

We also find that cross-border mergers are more likely if the involved firms are in countries that share a border or have common languages, and/or legal systems or are parties to a bilateral investment treaty or a double taxation treaty. These positive relationships may indicate lower merger-related transaction costs and, thus, greater ease of cross-border M&A activity. Positive relationships are also found between cross-border M&A activity and exchange rate variability, exchange rate growth, as well as corruption distance between the acquirer and

target nation.¹⁹ Lastly, both number of deals and the dollar volume are higher if the target is a private or a public firm rather than a subsidiary.

To the contrary, perhaps resulting from expectations of higher post-acquisition costs, geodesic distance between the countries is negatively related to both merger occurrence and merger value. We also see negative relationships between merger activity and the difference in corporate tax rates between acquiring and target countries and, when *CBMA%_count* and *CBMA%_value* are considered, between merger activity and the share of target country imports sourced from the acquirer country.

Returning to our initial research question, which involves the relationship between cultural distance and cross-border M&A activity, Table 4 presents results obtained when estimating the four variants of equation (1) where our cultural distance measure is interacted with period-specific dummy variables. These interaction terms allow us to consider whether the relationships between cultural distance and the dependent variable series vary across time.

We find, again regardless of the measure of cross-border M&A activity, that the influence of cultural distance has diminished during the three periods we consider. The *p*-values, obtained from Wald tests of the equality of coefficient pairs, reported at the bottom of Table 4, indicate that in three out of the four cases a significant difference in cultural distance coefficients exists between the periods 1 and 3 (columns 1, 3, and 4). These findings confirm our second hypothesis, suggesting that although cultural distance still hampers merger activity, its role has diminished over time.

¹⁹ This positive coefficient on corruption distance is counterintuitive and not in line with the literature. Upon further investigation, we conclude that our estimate is driven by a single target country (USA). Dropping the U.S. from the sample produces a negative, albeit statistically insignificant coefficient on corruption.

Table 4

Cultural distance and merger activity across the three time periods.

Tobit regression of a gravity model. All the variables are defined in Appendix A. The sample covers periods between 1995-1998, 2005-2008, and 2017-2020. Cultural distance is a composite measure constructed using data from the World Values Survey. $|\Delta|$ indicates the absolute difference between the acquirer and target nation variables. A constant is included in each specification but not reported in the table. Acquirer country-year and target country-year effects are included in each specification. *p*-values at the bottom of the table correspond to a series of Wald tests of the equality of cultural distance coefficients from one time period to the next. The standard errors in all estimations are clustered by country pair. Significance at 10%, 5%, and 1% is indicated by *, **, and *** with *t*-statistic in parentheses.

	Dependent Variable			
	CBMA% Count	CBMA% Value	In CBMA Count	In CBMA Value
ln (1+ CDIST) x Period 1 Dummy	-0.065*** (-3.47)	-0.069*** (-3.00)	-0.291*** (-2.91)	-1.579*** (-3.70)
ln (1+CDIST) x Period 2 Dummy	-0.052*** (-3.73)	-0.039** (-2.14)	-0.201*** (-2.73)	-1.121*** (-3.22)
ln (1+CDIST) x Period 3 Dummy	-0.017 (-1.26)	-0.030 (-1.59)	-0.072 (-0.93)	-0.568* (-1.70)
ln (1+ Number of Prior M&A)	0.036*** (8.02)	0.045*** (8.10)	0.421*** (21.01)	1.350*** (15.79)
ln (1+ $ \Delta $ Corp. Tax)	-0.003 (-0.80)	0.000 (0.07)	-0.039** (-1.99)	0.059 (0.67)
ln (Imports)	-0.285*** (-3.58)	-0.471*** (-4.60)	0.822* (1.89)	0.076 (0.04)
Double-tax treaty	0.004 (0.75)	0.010 (1.43)	0.044 (1.38)	0.037 (0.27)
Bilateral trade treaty	-0.000 (-0.01)	-0.003 (-0.30)	0.041 (0.95)	0.012 (0.06)
M&A private target fraction	0.182*** (13.73)	0.192*** (12.95)	1.082*** (27.17)	4.646*** (22.77)
M&A public target fraction	0.153*** (13.15)	0.244*** (14.67)	1.064*** (21.78)	5.423*** (23.00)
Exchange rate volatility	0.691 (1.31)	0.485 (0.66)	5.168* (1.74)	20.049 (1.39)
Exchange rate growth	0.072 (0.92)	0.149 (1.48)	0.242 (0.93)	1.118 (0.85)
ln (Geodesic distance)	-0.053*** (-6.31)	-0.065*** (-7.04)	-0.172*** (-6.33)	-0.931*** (-7.31)
Corruption distance	0.092** (2.55)	0.236*** (3.78)	0.359* (1.70)	2.088** (2.04)
Same border	0.024* (1.86)	0.020 (1.25)	0.008 (0.15)	0.373* (1.65)
Same language	0.011 (0.79)	0.009 (0.51)	0.044 (0.70)	0.043 (0.19)
Same legal system	0.024*** (3.51)	0.027*** (3.05)	0.107*** (3.29)	0.283* (1.87)
p-values from the Wald test				
Diff. of ln (1+CDIST) between P1 and P2	0.520	0.241	0.426	0.359
Diff. of ln (1+CDIST) between P1 and P3	0.026	0.136	0.070	0.052
Diff. of ln (1+CDIST) between P2 and P3	0.054	0.727	0.194	0.223
Pseudo-R ²	1.223	0.964	0.588	0.377
N	11,160	11,160	11,160	11,160

Our fourth research question asks whether prior cross-border M&A activities offset, either in whole or in part, the negative influence of national cultural distance and, hence, further facilitates subsequent cross-border M&A activity. To answer this question, we modify equation (1) by interacting our cultural distance variables with indicators of prior merger activity. Specifically, we interact the cultural distance variables with a categorical variable that splits prior merger activity between the country pairs into bins containing no prior mergers, one to two prior mergers, three to ten prior mergers, and more than ten prior mergers. Slightly more than 50 percent of our country pair-year observations have no prior mergers (and are thus included in the first bin). The rest of the observations are split more or less equally across the remaining three bins (approximately 15 percent in each).²⁰

The results, presented in Table 5, are striking. Regardless of the dependent variable series considered, cultural distance is found to have a negative and statistically significant influence on current M&A activity when prior merger activity is low. When we consider country pairs over different levels of prior merger activity, we observe a diminishing effect of cultural distance as the number of prior mergers increases. The effect of cultural distance generally disappears altogether when the number of prior mergers goes beyond ten. The p-values at the bottom of Table 5, which correspond to a series of Wald tests of the equality of coefficient estimates, indicate that the decline (in absolute value) of the cultural distance coefficients from one prior mergers bin to the next is statistically significant in all but one case. This strongly suggests that prior merger activity results in knowledge that reduces merger-related costs and facilitates subsequent cross-border M&A activity.

²⁰ As a robustness check, we try two alternative categorizations of the prior merger activity and find that in both cases the results are consistent with our main findings.

Table 5

Cultural distance and merger activity across different prior merger bins.

Tobit regression of a gravity model. All the variables are defined in Appendix A. The sample covers periods between 1995-1998, 2005-2008, and 2017-2020. Cultural distance is a composite measure constructed using data from the World Values Survey. $|\Delta|$ indicates the absolute difference between the acquirer and target nation variables. A constant is included in each specification but not reported in the table. Acquirer country-year and target country-year effects are included in each specification. p -values at the bottom of the table correspond to a series of Wald tests of the equality of cultural distance coefficients from one prior mergers bin to the next. The standard errors in all estimations are clustered by country pair. Significance at 10%, 5%, and 1% is indicated by *, **, and *** with t -statistic in parentheses.

	Dependent Variable			
	CBMA% Count	CBMA% Value	ln CBMA Count	ln CBMA Value
ln (1+CDIST) over Prior Number of Mergers				
Zero	-0.106*** (-7.65)	-0.132*** (-7.47)	-0.650*** (-8.60)	-3.098*** (-10.00)
One to two	-0.074*** (-5.63)	-0.086*** (-5.39)	-0.584*** (-7.67)	-2.469*** (-8.15)
Three to ten	-0.039*** (-3.53)	-0.041*** (-2.79)	-0.447*** (-6.14)	-1.584*** (-5.46)
More than ten	-0.011 (-1.00)	-0.003 (-0.17)	-0.132 (-1.59)	-0.036 (-0.11)
ln (1+ $ \Delta$ Corp. Tax)	-0.010** (-2.51)	-0.008 (-1.52)	-0.123*** (-4.87)	-0.188** (-2.01)
ln (Imports)	-0.187** (-2.28)	-0.347*** (-3.45)	1.543** (2.39)	2.741 (1.32)
Double-tax treaty	0.005 (0.83)	0.011 (1.45)	0.051 (1.17)	0.079 (0.51)
Bilateral trade treaty	-0.006 (-0.64)	-0.011 (-0.89)	0.001 (0.01)	-0.089 (-0.37)
M&A private target fraction	0.182*** (13.78)	0.191*** (12.84)	1.177*** (26.33)	4.761*** (22.22)
M&A public target fraction	0.163*** (13.56)	0.256*** (14.68)	1.215*** (21.53)	5.793*** (23.90)
Exchange rate volatility	0.827 (1.52)	0.674 (0.90)	9.118** (2.32)	25.677* (1.67)
Exchange rate growth	0.096 (1.20)	0.182* (1.86)	0.402 (1.51)	1.944 (1.48)
ln (Geodesic distance)	-0.061*** (-6.38)	-0.074*** (-7.27)	-0.355*** (-8.72)	-1.303*** (-9.18)
Corruption distance	0.145*** (3.86)	0.300*** (4.77)	1.183*** (4.73)	4.263*** (3.93)
Same border	0.028** (2.07)	0.025 (1.53)	0.062 (0.85)	0.525** (2.01)
Same language	0.029* (1.94)	0.031* (1.72)	0.270*** (3.28)	0.677*** (2.71)
Same legal system	0.032*** (4.43)	0.036*** (4.00)	0.236*** (5.37)	0.620*** (3.70)
p-values from the Wald test				
Diff. of ln (1+CDIST) coef. over Number of Prior Mergers				
Zero vs. one to two	0.003	0.001	0.217	0.008
One to two vs. three to ten	0.000	0.000	0.006	0.000
Three to ten vs. more than ten	0.000	0.000	0.000	0.000
Pseudo-R ²	1.214	0.960	0.561	0.372
N	11,160	11,160	11,160	11,160

To address the concern that the results in Table 5 could be driven by some alternative time-varying process, such as global integration or the adoption of common accounting standards, we assess the relationship between cultural distance and prior deal experience in each period.²¹ Our next set of results offers further evidence in support of our fourth hypothesis. In Table 6, we show that the decline in the effect of cultural distance on M&A activity as the number of prior mergers in a country pair increases is present within each of the three periods considered in this study. The results in each period broadly mimic those reported in Table 5. Cultural distance presents the strongest impediment to new deals in country pairs with little to no prior M&A experience and this negative effect is no longer present in country pairs with more than ten prior deals.

4.B Robustness Checks

In this section, we present the results of various checks aimed at ensuring the robustness of our findings. We demonstrate that our findings are robust to the measure of cultural distance considered, sample composition, choice of periods examined, alternative ranges of prior M&A activity, model specification, and estimation technique. Except for Table A.1 where we use all four dependent variables, in the remaining results reported in this section the dependent variable is CBMA%_count.²²

To ensure that our results are not driven by our measure of cultural distance, we replace our measure with three alternative measures of cultural distance, in turn, and re-estimate the

²¹ Separately, in unreported results, we consider the adoption of IFRS by countries in our sample and find that our reported results are qualitatively unchanged.

²² The results are consistent when we use any of the other three dependent variables. Due to space limitations, we do not report the results here; however, all results are available, upon request, from the authors.

Table 6

Cultural distance and merger activity across different prior merger bins over each of the three periods.

Tobit regression of a gravity model. All the variables are defined in Appendix A. The sample covers periods between 1995-1998, 2005-2008, and 2017-2020. Cultural distance is a composite measure constructed using data from the World Values Survey. $|\Delta|$ indicates the absolute difference between the acquirer and target nation variables. A constant is included in each specification but not reported in the table. Acquirer country-year and target country-year effects are included in each specification. *p*-values at the bottom of the table correspond to a series of Wald tests of the equality of cultural distance coefficients from one prior mergers bin to the next within each period. The standard errors in all estimations are clustered by country pair. Significance at 10%, 5%, and 1% is indicated by *, **, and *** with *t*-statistic in parentheses.

	Dependent Variable			
	CBMA% Count	CBMA% Value	In CBMA Count	In CBMA Value
In (1+CDIST) in Period 1 over Prior Number of Mergers				
Zero	-0.102*** (-4.40)	-0.118*** (-4.26)	-0.587*** (-4.61)	-2.704*** (-5.53)
One to two	-0.072*** (-3.68)	-0.078*** (-3.13)	-0.509*** (-3.97)	-2.349*** (-4.70)
Three to ten	-0.043** (-2.05)	-0.044 (-1.64)	-0.311** (-2.20)	-1.053* (-1.86)
More than ten	-0.021 (-0.86)	-0.007 (-0.22)	0.102 (0.61)	0.555 (0.88)
In (1+CDIST) in Period 2 over Prior Number of Mergers				
Zero	-0.123*** (-6.50)	-0.135*** (-5.76)	-0.733*** (-7.18)	-3.373*** (-7.59)
One to two	-0.084*** (-4.62)	-0.076*** (-3.47)	-0.635*** (-6.13)	-2.473*** (-5.63)
Three to ten	-0.037** (-2.29)	-0.015 (-0.70)	-0.393*** (-3.86)	-1.158*** (-2.70)
More than ten	-0.021 (-1.21)	0.003 (0.13)	-0.103 (-0.82)	0.062 (0.12)
In (1+CDIST) in Period 3 over Prior Number of Mergers				
Zero	-0.089*** (-3.57)	-0.132*** (-4.06)	-0.441*** (-3.37)	-2.571*** (-4.67)
One to two	-0.068*** (-3.25)	-0.103*** (-3.82)	-0.477*** (-4.01)	-2.210*** (-4.47)
Three to ten	-0.043*** (-2.89)	-0.063*** (-3.01)	-0.531*** (-5.46)	-2.170*** (-5.31)
More than ten	-0.002 (-0.10)	-0.003 (-0.12)	-0.219** (-2.14)	-0.266 (-0.63)
In (1+ $ \Delta$ Corp. Tax)	-0.010** (-2.55)	-0.009 (-1.62)	-0.127*** (-5.06)	-0.206** (-2.22)
In (Imports)	-0.183** (-2.21)	-0.333*** (-3.29)	1.469** (2.32)	2.715 (1.32)
Double-tax treaty	0.005 (0.77)	0.011 (1.43)	0.057 (1.32)	0.096 (0.63)
Bilateral trade treaty	-0.006 (-0.62)	-0.011 (-0.86)	0.008 (0.14)	-0.059 (-0.25)
M&A private target fraction	0.182*** (13.82)	0.190*** (12.86)	1.174*** (26.37)	4.747*** (22.13)
M&A public target fraction	0.163*** (13.52)	0.256*** (14.65)	1.204*** (21.74)	5.771*** (23.75)
Exchange rate volatility	0.867 (1.57)	0.652 (0.86)	8.553** (2.18)	23.843 (1.54)

Exchange rate growth	0.091 (1.15)	0.173* (1.77)	0.379 (1.38)	1.753 (1.30)
ln (Geodesic distance)	-0.061*** (-6.39)	-0.073*** (-7.22)	-0.358*** (-8.87)	-1.310*** (-9.26)
Corruption distance	0.145*** (3.84)	0.297*** (4.68)	1.202*** (4.88)	4.288*** (3.97)
Same border	0.028** (2.07)	0.024 (1.49)	0.057 (0.78)	0.499* (1.90)
Same language	0.030** (1.97)	0.032* (1.78)	0.271*** (3.28)	0.690*** (2.79)
Same legal system	0.032*** (4.43)	0.036*** (4.06)	0.237*** (5.43)	0.625*** (3.78)
p-values from the Wald test				
Diff. of ln (1+CDIST) coef. over Number of Prior Mergers				
Period 1				
Zero vs. one to two	0.090	0.065	0.361	0.351
One to two vs. three to ten	0.052	0.065	0.038	0.002
Three to ten vs. more than ten	0.189	0.093	0.000	0.000
Period 2				
Zero vs. one to four	0.016	0.003	0.244	0.018
One to four vs. five or more	0.001	0.001	0.001	0.000
Zero vs. five or more	0.144	0.198	0.000	0.000
Period 3				
Zero vs. one to four	0.343	0.280	0.752	0.459
One to four vs. five or more	0.143	0.079	0.576	0.923
Zero vs. five or more	0.000	0.000	0.000	0.000
Pseudo-R ²	1.215	0.962	0.563	0.373
N	11,160	11,160	11,160	11,160

specification for which results are presented in Table 5. The first alternative measure is based on Hofstede's (2001) cultural dimensions.²³ We also consider the religious distance and the genetic distance between country pairs as proxies for cultural distance.²⁴ Results are presented in Table A.1.

The results are consistent with our findings. Regardless of the measure employed, we generally observe negative and statistically significant relationships between cultural distance

²³ We follow the approach detailed in Kogut and Singh (1988) to construct the Hofstede measure.

²⁴ Data for religious distance and genetic distance are from Belot and Ederveen (2012) and Spolaore and Wacziarg (2009), respectively.

and each dependent variable series. There is variation across the measures of cultural distance in terms of coefficient magnitudes and, in certain instances, signs and statistical significance; however, we attribute these differences to breadth of cultural distance measures considered. Further, as observed in our primary results, the negative influence of cultural distance on cross-border M&A activity diminishes as the number of prior mergers increases. The p-values that are presented near the bottom of the table reveal that the changes in coefficient estimates (i.e., in the influence of cultural distance) are statistically significant. This is also consistent with the results that are presented in Table 5. Thus, the robustness checks indicate that our results are not driven by the measure of cultural distance considered.

An additional concern is that our results may be influenced by individual nations in our dataset. To address this possibility, we systematically exclude one nation from our sample at a time, repeating the process for 31 rounds. For instance, in the first round, Argentina was excluded, while in the second round, Argentina returned to the sample while Australia was excluded, and so on. By allowing for significant variation in cultural distance effects with the exclusion of specific nations, we can ascertain whether the inclusion of any one country drives the overall results. We apply this process while estimating the specification for which results are presented in column (1) of Table 5. Focusing on the interactions between our measures of cultural distance and prior merger activity (four bins) results in 124 coefficient estimates. In all cases, the estimated cultural distance effects are within the 95 percent confidence intervals constructed around the coefficient estimates obtained when considering the full sample.

Our results are also consistent when we jointly drop the top and bottom two most active acquiring nations from the sample (i.e., the United States, France, Slovakia, and Romania). Results are presented in column (1) of Appendix Table A.2. We then drop the top and bottom three (and, subsequently, four) most active acquiring countries from the sample and re-estimate

equation (1). The results, presented in columns (2) and (3) of the table, consistently support our main findings. Looking at the estimated coefficients in each of the three columns, we conclude that the results reported in Table 5 are not driven by a single or even multiple countries in our sample.

We also address concerns regarding our choice of sample periods by extending our analysis to include merger activity in the adjacent years for each of the three periods. This approach, adding six more years of M&A data in total, yields the results presented in column (4) of Appendix Table A.2, which are consistent with those reported in Table 5 for our chosen sample period.

For our main results, our sample consists of all deals valued at \$1 million or above, including acquisitions of minority interest. To explore the impact of majority stake and full stake acquisitions, we estimate equation (1) using a sample that includes only completed transactions of at least \$1 million where more than 50 percent of the target was acquired. Although a standard sampling criterion in the literature, whether there is an ownership change as a result of a deal does not appear to be of critical importance in our context. The average value of deals including minority stake deals in our sample is approximately \$307 million (as compared to an average of \$333 million for deals where more than 50 percent of the target was acquired). It is possible that cultural distance is a larger consideration when a firm's investment decision does not include control rights. This is suggested by the results that are reported in columns (5) and (6) of Appendix Table A.2 which, while consistent with those reported in Table 5, show even more pronounced declines in the effect of cultural distance as the number of prior mergers increases across the three time periods. These findings are similar even when we restrict the sample to 100 percent stake acquisitions (column (5)).

Next, we explore the stability of coefficients when considering only two time periods at a time (i.e., excluding individual periods). Column (1) of Table A.3 reports the estimation results for periods 1 and 2 only. Columns (2) and (3) report the results for periods 1 and 3, and periods 2 and 3, respectively. In all cases, the results remain comparable and display similar insights to the complete sample. Thus, we conclude that our primary results are not due to the choice of periods examined.

Our next robustness checks involve our choice to split the prior merger count series into four bins, which, given the distribution of the variable, we view as a balance between our goal of extracting information while avoiding cutting the data too finely. Using different cutoffs, we first consider a simple splitting of the prior merger activity series into two categories: zero (no prior merger activity involving the country pair) and positive (one or more prior mergers having been completed by the firms in the country pair). The estimation results are reported in column (1) in Appendix Table A.4. The results for a more granular split, using three bins and five bins are presented in columns (2) and (3), respectively. In all instances, the results are generally consistent with those reported for the full sample.

For our last set of robustness checks, we explore alternative model specifications and estimation techniques. The results of these tests are presented in Table A.5. We begin by estimating equation (1) excluding all control variables (column (1)). In column (2) we add country-year fixed effects. We then add, in turn, deal-level controls and country-pair controls (column (3) and (4), respectively). Next, we swap the country-year fixed effects for country fixed effects and year fixed effects (column (5)). In the last column, we present the results obtained from a random-effects Tobit regression.

The results in Table A.5 provide additional evidence to support our findings. Of the 24 reported cultural distance coefficients, all but one decrease significantly in absolute value

(becomes less negative) as we move from one prior M&A bin to the next. Though the pattern of change in the coefficients is consistent with our main results, the magnitudes of the cultural distance coefficients are considerably larger in the least restrictive specifications. Adding the deal-level controls decreases the cultural distance coefficients by approximately a third. Similarly, the inclusion of country-pair controls reduces the coefficients by one half. This further indicates the robustness of our primary results. Though the results indicate that the panel-level variance component is important ($\rho \neq 0$), the results reported in column (6) are consistent with our main findings.²⁵

5. Summary and Conclusions

Employing the gravity framework, we have utilized the Tobit estimation technique to examine the extent to which cross-border merger activity is affected by national cultural differences (i.e., cultural distance) and prior merger activity. Our sample represents 9,398 cross-border mergers involving acquiring and target firms located in 31 countries that occurred during three distinct periods: 1995-1998, 2005-2008, and 2017-2020. Using four related, yet distinct, measures of cross-border M&A activity, we consider the relationship between our time-varying composite measure of cultural distance and cross-border M&A activities. Additionally, we control for country-level fixed effects and a multitude of country-pair variables.

We report evidence of a statistically significant negative influence of national cultural differences on firms' cross-border M&A activity (i.e., the number and value of deals both in total and as a share of global merger activity). We also find a positive influence of prior cross-border

²⁵ Random-effects Tobit relies on very strong assumption on the idiosyncratic shocks. Namely, if $u(i,t)$ are the time-varying errors, these must be independent across time. Using a pooled Tobit with clustered standard errors is more robust because it allows any kind of serial correlation (see Wooldridge, 2010).

M&A activity involving a country pair on subsequent merger activity. This is consistent with the notion that cross-border merger activity results in knowledge accumulation among involved firms via a learning by doing process and diffusion of related knowledge to other firms through a learning by observing mechanism. Lastly, we show that prior M&A experience in a country pair diminish the effect of cultural distance. The implication is that, as cross-border merger activity increases, the knowledge created in the process continues to diffuse to other firms in the acquiring country and the role of cultural distance becomes insignificant.

Appendix A: Description of Variables

A.1. Dependent variables

- CBMA_count: The total number of M&A deals between country i acquirers and country j targets in year t . (Source: SDC Platinum)
- CBMA_value: Aggregate dollar value of M&A deals between country i acquirers and country j targets in year t . (Source: SDC Platinum)
- CBMA%_count: Ratio of the number of M&A deals with target country j to the total number of cross-border deals that involve country i acquirers (i.e., $CBMA_{ij_count}/CBMA_{im_count}$) where m indicates all countries in the world, including country j . (Source: SDC Platinum).
- CBMA%_value: The ratio of the aggregate dollar value of M&A deals with target country j and the total dollar volume of cross-border deals that involve country i acquirers (i.e., $CBMA_{ij_value}/CBMA_{im_value}$) where m indicates all countries in the world, including country j . (Source: SDC Platinum).

A.2. Independent variables

- CDIST: A composite cultural distance measure that is based on two dimensions: Traditional vs. Secular-Rational authority and Survival vs. Self-Expression values (SSE). The values for these dimensions are generated through the application of factor analysis to a common subset of WVS questions and are provided as part of the WVS data. (Source: WVS)
- Number of Prior M&A: The first lag of the cumulative number of prior deals between country pairs. (Source: SDC)
- Change in Corporate Tax: The difference in corporate tax rates between acquirer and target countries. (Source: Tax Foundation).
- Imports: Ratio of target country imports (excluding re-exports and re-imports) from acquirer country to the total imports of target country (Source: UN COMTRADE).
- Bilateral tax treaty: Dummy variable equal to one if the acquirer and target nation signed a bilateral investment treaty (Source: UNCTAD).
- Double tax treaty: Dummy variable equal to one if the acquirer and target nation signed a double-taxation treaty (Source: OECD).
- M&A private target fraction: Ratio of the dollar volume of all mergers in which the target is private and the total dollar volume of all mergers for each country-pair and year (Source: SDC).
- M&A public target fraction: Ratio of the dollar volume of all mergers in which the target is public to the total dollar volume of all mergers for each country-pair and year (Source: SDC).
- Exchange rate volatility: Average monthly standard deviation for the year preceding the year of the deal announcement, between the acquirer and target nation. (Source: IMF International Financial Statistics).
- Exchange rate growth: Exchange rate growth during the year preceding the year of announcement?
- Geodesic distance: Great circle distance, calculated using latitudes and longitudes of the most important cities (in terms of population) or their official capitals. (Source: CEPII).
- Share border: Dummy variable equal to 1 if the acquirer and target nations share the same border. (Source: CEPII).
- Same language: Dummy variable equal to 1 if the acquirer and target nations share the same official language. (Source: CEPII).
- Same legal system: Dummy variable equal to 1 if the acquirer and target nations share the same legal system. (Source: CEPII).
- Same religion: Dummy variable equal to 1 if the acquirer and target nations share the same religion. (Source: CEPII).

Appendix B: Robustness Checks

Table A.1: Alternative Measures of Cultural Distance.

Three cultural distance measures: Hofstede, Religious Distance, and Genetic Distance. Tobit regression of a gravity model. All the variables are defined in Appendix A. The sample covers periods between 1995-1998, 2005-2008, and 2017-2020. A constant is included in each specification but not reported in the table. Acquirer country-year and target country-year effects are included in each specification. *p*-values at the bottom of the table correspond to a series of Wald tests of the equality of cultural distance coefficients from one prior mergers bin to the next. The standard errors in all estimations are clustered by country pair. Significance at 10%, 5%, and 1% is indicated by *, **, and *** with *t*-statistic in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	CBMA% Count	CBMA% Value	ln CBMA Count	ln CBMA Value	CBMA% Count	CBMA% Value	ln CBMA Count	ln CBMA Value	CBMA% Count	CBMA% Value	ln CBMA Count	ln CBMA Value
In (1+Hofstede_Dist) over Prior Number of Mergers												
Zero	-0.048*** (-6.34)	-0.059*** (-6.34)	-0.289*** (-6.83)	-1.331*** (-8.14)								
One to two	-0.032*** (-4.43)	-0.036*** (-4.13)	-0.251*** (-6.07)	-0.987*** (-6.25)								
Three to ten	-0.015** (-2.37)	-0.015* (-1.87)	-0.196*** (-4.84)	-0.628*** (-4.17)								
More than ten	0.000 (0.07)	0.006 (0.81)	-0.039 (-0.88)	0.136 (0.88)								
In (1+Religion_Dist) over Prior Number of Mergers												
Zero				-0.131*** (-7.61)	-0.176*** (-7.92)	-0.832*** (-7.87)	-4.196*** (-10.02)					
One to two				-0.090*** (-5.44)	-0.117*** (-5.52)	-0.799*** (-7.72)	-3.579*** (-8.60)					
Three to ten				-0.032* (-1.83)	-0.045** (-2.07)	-0.591*** (-6.01)	-2.313*** (-5.77)					
More than ten				0.005 (0.28)	0.004 (0.17)	-0.215* (-1.95)	-0.406 (-0.90)					
In (1+Genetic_Dist) over Prior Number of Mergers												
Zero							-0.019*** (-4.28)	-0.023*** (-4.01)	-0.096*** (-3.27)	-0.643*** (-5.85)		
One to two							-0.011** (-2.51)	-0.010* (-1.81)	-0.077*** (-2.67)	-0.468*** (-4.28)		
Three to ten							0.003 (0.83)	0.006 (1.34)	-0.019 (-0.69)	-0.146 (-1.46)		
More than ten							0.013*** (3.03)	0.017*** (3.59)	0.072*** (2.67)	0.256** (2.55)		

ln (1+ Δ Corp. Tax)	-0.009**	-0.008	-0.126***	-0.196**	-0.009**	-0.007	-0.115***	-0.147	-0.009**	-0.007	-0.117***	-0.153
	(-2.37)	(-1.52)	(-4.85)	(-2.03)	(-2.30)	(-1.31)	(-4.52)	(-1.55)	(-2.21)	(-1.31)	(-4.43)	(-1.55)
ln (Imports)	-0.191**	-0.353***	1.762**	3.397	-0.174**	-0.334***	1.764***	3.267*	-0.166**	-0.317***	1.715**	3.281
	(-2.07)	(-3.32)	(2.40)	(1.42)	(-2.17)	(-3.34)	(2.88)	(1.71)	(-2.04)	(-3.24)	(2.47)	(1.39)
Double-tax treaty	0.006	0.013	0.051	0.116	0.004	0.010	0.041	0.036	0.003	0.009	0.053	0.053
	(1.06)	(1.60)	(1.12)	(0.73)	(0.65)	(1.30)	(0.94)	(0.24)	(0.59)	(1.21)	(1.18)	(0.34)
Bilateral trade treaty	-0.018*	-0.022*	-0.034	-0.157	-0.020**	-0.026**	-0.117**	-0.526**	-0.024***	-0.033***	-0.126**	-0.600***
	(-1.86)	(-1.80)	(-0.53)	(-0.64)	(-2.18)	(-2.23)	(-1.96)	(-2.27)	(-2.69)	(-2.83)	(-2.08)	(-2.58)
M&A private target fraction	0.180***	0.189***	1.168***	4.682***	0.183***	0.193***	1.193***	4.828***	0.181***	0.190***	1.180***	4.785***
	(13.40)	(12.51)	(25.61)	(21.43)	(13.94)	(13.00)	(26.51)	(22.47)	(13.88)	(12.93)	(26.42)	(22.26)
M&A public target fraction	0.157***	0.251***	1.215***	5.755***	0.163***	0.256***	1.218***	5.776***	0.162***	0.255***	1.223***	5.836***
	(13.52)	(14.45)	(21.97)	(23.61)	(13.58)	(14.62)	(21.81)	(23.99)	(13.83)	(14.71)	(22.11)	(23.95)
Exchange rate volatility	0.320	0.062	6.430	13.180	0.334	0.067	4.530	6.953	0.783	0.691	8.712**	26.705*
	(0.57)	(0.08)	(1.62)	(0.82)	(0.60)	(0.09)	(1.13)	(0.44)	(1.45)	(0.92)	(2.20)	(1.70)
Exchange rate growth	0.055	0.130	-0.057	-0.040	0.080	0.167*	0.174	1.198	0.060	0.148	0.045	0.166
	(0.69)	(1.19)	(-0.21)	(-0.04)	(1.02)	(1.69)	(0.53)	(0.83)	(0.70)	(1.38)	(0.14)	(0.12)
ln (Geodesic distance)	-0.058***	-0.070***	-0.341***	-1.194***	-0.057***	-0.069***	-0.332***	-1.201***	-0.058***	-0.072***	-0.345***	-1.236***
	(-5.34)	(-6.11)	(-7.60)	(-7.77)	(-6.27)	(-7.01)	(-7.99)	(-8.42)	(-6.01)	(-6.95)	(-8.05)	(-8.27)
Corruption distance	0.144***	0.307***	1.227***	4.430***	0.149***	0.303***	1.227***	4.371***	0.130***	0.279***	1.141***	4.188***
	(3.61)	(4.68)	(4.74)	(3.96)	(3.95)	(4.80)	(4.91)	(4.01)	(3.41)	(4.35)	(4.48)	(3.81)
Same border	0.026*	0.025	0.041	0.528**	0.029**	0.026	0.039	0.501**	0.028**	0.025	0.061	0.574**
	(1.88)	(1.50)	(0.56)	(2.00)	(2.17)	(1.64)	(0.55)	(1.96)	(2.06)	(1.55)	(0.78)	(2.10)
Same language	0.025	0.031	0.208**	0.534*	0.031**	0.033*	0.294***	0.745***	0.022	0.023	0.235***	0.502*
	(1.49)	(1.59)	(2.23)	(1.82)	(2.01)	(1.77)	(3.56)	(2.89)	(1.47)	(1.26)	(2.75)	(1.90)
Same legal system	0.032***	0.036***	0.215***	0.607***	0.035***	0.038***	0.214***	0.553***	0.039***	0.043***	0.285***	0.841***
	(4.22)	(3.85)	(4.80)	(3.31)	(4.27)	(3.82)	(4.67)	(3.20)	(5.52)	(4.97)	(6.12)	(4.85)
p-values from the Wald test Diff. of Cultural Distance coef. over Number of Prior Mergers												
Zero vs. one to two	0.001	0.000	0.100	0.001	0.003	0.001	0.636	0.041	0.003	0.000	0.190	0.005
One to two vs. three to ten	0.000	0.000	0.009	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000
Three to ten vs. more than ten	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo-R ²	1.235	0.969	0.562	0.373	1.214	0.962	0.561	0.372	1.218	0.962	0.560	0.371
N	10,440	10,440	10,440	10,440	11,160	11,160	11,160	11,160	11,160	11,160	11,160	11,160

Table A.2: Sample selection

Cultural distance and merger activity across different prior merger bins and different subsamples.

Tobit regression of a gravity model. Dependent variable is CBMA% Count. All the variables are defined in Appendix A. The main sample covers periods between 1995-1998, 2005-2008, and 2017-2020. Cultural distance is a composite measure constructed using data from the World Values Survey. $|\Delta|$ indicates the absolute difference between the acquirer and target nation variables. A constant is included in each specification but not reported in the table. Acquirer country-year and target country-year effects are included in each specification. p -values at the bottom of the table correspond to a series of Wald tests of the equality of cultural distance coefficients from one prior mergers bin to the next. The standard errors in all estimations are clustered by country pair. Significance at 10%, 5%, and 1% is indicated by *, **, and *** with t -statistic in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)
	Sample Modifications					
	Excluding top/bottom 2 countries	Excluding top/bottom 3 countries	Excluding top/bottom 4 countries	Expanding periods by 1 year on each end	Majority Stake purchases	Excluding Stake Purchases
ln (1+ CDIST) in Period 1 over Prior Number of Mergers						
Zero	-0.103*** (-6.40)	-0.100*** (-6.10)	-0.114*** (-6.32)	-0.120*** (-9.74)	-0.125*** (-7.31)	-0.126*** (-6.47)
One to two	-0.080*** (-5.00)	-0.062*** (-4.28)	-0.065*** (-4.36)	-0.078*** (-6.95)	-0.086*** (-5.43)	-0.070*** (-4.26)
Three to ten	-0.036*** (-2.84)	-0.029** (-2.39)	-0.031** (-2.44)	-0.047*** (-4.92)	-0.044*** (-3.50)	-0.031** (-2.23)
More than ten	-0.015 (-1.07)	-0.006 (-0.49)	-0.009 (-0.66)	-0.016 (-1.62)	-0.010 (-0.75)	0.001 (0.05)
Same industry fraction	-0.007 (-1.37)	-0.006 (-1.20)	-0.003 (-0.58)	-0.012*** (-3.71)	-0.013*** (-2.85)	-0.018*** (-3.57)
ln (1+ Δ Corp. Tax)	-0.166 (-1.27)	-0.016 (-0.15)	0.117 (0.86)	-0.215*** (-3.12)	-0.174* (-1.92)	-0.171* (-1.76)
ln (Share of total imports from acquirer country)	-0.002 (-0.21)	0.002 (0.29)	0.002 (0.22)	0.009* (1.80)	0.005 (0.82)	-0.002 (-0.25)
Double-tax treaty	-0.005 (-0.46)	-0.005 (-0.45)	-0.008 (-0.66)	-0.001 (-0.12)	0.001 (0.14)	0.001 (0.09)
Bilateral trade treaty	0.190*** (11.83)	0.184*** (11.08)	0.195*** (11.01)	0.189*** (14.62)	0.200*** (13.53)	0.223*** (13.37)
M&A private target fraction	0.188*** (11.92)	0.182*** (10.96)	0.195*** (10.86)	0.169*** (14.75)	0.164*** (12.41)	0.206*** (10.27)
M&A public target fraction	0.465 (0.64)	0.377 (0.55)	0.733 (1.01)	0.085 (0.48)	0.604 (0.98)	0.748 (1.08)
Exchange rate volatility	0.009 (0.23)	0.023 (0.51)	0.029 (0.58)	-0.000 (-0.56)	0.094 (1.03)	0.090 (0.87)
Exchange rate growth	-0.066*** (-6.45)	-0.051*** (-7.80)	-0.047*** (-6.68)	-0.061*** (-7.35)	-0.066*** (-6.07)	-0.074*** (-6.61)
ln (Geodesic distance)	-0.007 (-0.08)	-0.027 (-0.89)	-0.048 (-1.49)	0.160*** (4.56)	0.161*** (3.87)	0.185*** (3.96)
Δ Corruption	0.021 (1.23)	0.029** (1.99)	0.054*** (2.78)	0.030** (2.52)	0.033** (2.35)	0.046*** (2.93)
Same border	0.039** (1.97)	0.019 (1.29)	0.019 (1.07)	0.037*** (2.66)	0.025 (1.41)	0.026 (1.33)
Same language	0.039*** (4.18)	0.032*** (3.82)	0.035*** (3.70)	0.028*** (4.35)	0.032*** (3.89)	0.039*** (4.07)
Same legal system	-0.007 (-1.37)	-0.006 (-1.20)	-0.003 (-0.58)	-0.012*** (-3.71)	-0.013*** (-2.85)	-0.018*** (-3.57)
p-values from the Wald test Diff. of ln (1+ CDIST) coef. over Number of Prior Mergers						
Zero vs. one to two	0.080	0.004	0.001	0.000	0.001	0.000
One to two vs. three to ten	0.000	0.002	0.003	0.000	0.000	0.001
Three to ten vs. more than ten	0.014	0.006	0.023	0.000	0.000	0.003
Pseudo-R ²	1.128	1.186	1.146	1.139	1.070	0.967
N	8,424	7,500	6,348	16,740	11,160	11,160

Table A.3: Time period selection

Cultural distance and merger activity across different prior merger bins and different time periods.

Tobit regression of a gravity model. Dependent variable is CBMA% Count. All the variables are defined in Appendix A. The sample covers periods between 1995-1998, 2005-2008, and 2017-2020. Cultural distance is a composite measure constructed using data from the World Values Survey. $|\Delta|$ indicates the absolute difference between the acquirer and target nation variables. A constant is included in each specification but not reported in the table. Acquirer country-year and target country-year effects are included in each specification. p -values at the bottom of the table correspond to a series of Wald tests of the equality of cultural distance coefficients from one prior mergers bin to the next. The standard errors in all estimations are clustered by country pair. Significance at 10%, 5%, and 1% is indicated by *, **, and *** with t -statistic in parentheses.

	(1)	(2)	(3)
	Periods		
	1 & 2	1 & 3	2 & 3
ln (1+ CDIST) in Period 1 over Prior Number of Mergers			
Zero	-0.103*** (-6.60)	-0.105*** (-5.47)	-0.110*** (-6.83)
One to two	-0.072*** (-4.79)	-0.077*** (-4.65)	-0.076*** (-5.13)
Three to ten	-0.034** (-2.41)	-0.048*** (-3.44)	-0.038*** (-3.29)
More than ten	-0.021 (-1.39)	-0.008 (-0.58)	-0.008 (-0.73)
ln (1+ Δ Corp. Tax)	-0.010** (-2.08)	-0.007 (-1.48)	-0.012*** (-2.86)
ln (Share of total imports from acquirer country)	-0.221*** (-2.58)	-0.163* (-1.78)	-0.168* (-1.76)
Double-tax treaty	0.005 (0.70)	0.016** (2.14)	-0.004 (-0.55)
Bilateral trade treaty	-0.019 (-1.58)	-0.002 (-0.18)	0.000 (0.01)
M&A private target fraction	0.186*** (11.57)	0.198*** (12.05)	0.166*** (12.52)
M&A public target fraction	0.163*** (12.59)	0.181*** (12.45)	0.145*** (10.74)
Exchange rate volatility	1.798*** (2.83)	1.867*** (2.72)	-1.223* (-1.82)
Exchange rate growth	0.090 (1.14)	0.080 (0.97)	2.122** (2.16)
ln (Geodesic distance)	-0.068*** (-6.66)	-0.064*** (-6.16)	-0.051*** (-5.34)
Δ Corruption	0.209*** (5.05)	0.147*** (3.71)	-0.030 (-0.34)
Same border	0.023 (1.56)	0.018 (1.19)	0.041*** (2.82)
Same language	0.033* (1.86)	0.038** (2.24)	0.025 (1.61)
Same legal system	0.035*** (4.31)	0.031*** (3.38)	0.029*** (3.71)
p-values from the Wald test			
Diff. of ln (1+CDIST) coef. Over Number of Prior Mergers			
Zero vs. one to two	0.007	0.056	0.011
One to two vs. three to ten	0.000	0.015	0.001
Three to ten vs. more than ten	0.169	0.000	0.000
Pseudo-R ²	1.289	1.100	1.281
N	7,440	7,440	7,440

Table A.4: Model specification

Cultural distance and merger activity across alternative prior merger thresholds.

Tobit regression of a gravity model. Dependent variable is CBMA% Count. All the variables are defined in Appendix A. The main sample covers periods between 1995-1998, 2005-2008, and 2017-2020. Cultural distance is a composite measure constructed using data from the World Values Survey. $|\Delta|$ indicates the absolute difference between the acquirer and target nation variables. A constant is included in each specification but not reported in the table. Acquirer country-year and target country-year effects are included in each specification. p -values at the bottom of the table correspond to a series of Wald tests of the equality of cultural distance coefficients from one prior mergers bin to the next. The standard errors in all estimations are clustered by country pair. Significance at 10%, 5%, and 1% is indicated by *, **, and *** with t -statistic in parentheses.

	(1)	(2)	(3)
ln (1+ CDIST) over Prior Number of Mergers			
Zero	-0.097*** (-7.09)	-0.102*** (-7.43)	-0.106*** (-7.65)
One or more	-0.046*** (-4.22)		
One to four		-0.062*** (-5.22)	
More than four		-0.025** (-2.29)	
One			-0.079*** (-5.23)
Two to four			-0.053*** (-4.56)
Five to 15			-0.031*** (-2.68)
More than 15			-0.009 (-0.76)
ln (1+ Δ Corp. Tax)	-0.011*** (-2.73)	-0.010*** (-2.68)	-0.010** (-2.48)
ln (Share of total imports from acquirer country)	-0.171** (-2.05)	-0.172** (-2.08)	-0.180** (-2.20)
Double-tax treaty	0.003 (0.49)	0.004 (0.72)	0.005 (0.83)
Bilateral trade treaty	-0.009 (-0.98)	-0.007 (-0.75)	-0.005 (-0.48)
M&A private target fraction	0.185*** (13.87)	0.182*** (13.82)	0.181*** (13.80)
M&A public target fraction	0.164*** (13.63)	0.164*** (13.67)	0.163*** (13.61)
Exchange rate volatility	1.119** (2.02)	0.978* (1.79)	0.879 (1.62)
Exchange rate growth	0.089 (1.12)	0.097 (1.21)	0.097 (1.22)
ln (Geodesic distance)	-0.066*** (-6.80)	-0.063*** (-6.52)	-0.061*** (-6.42)
Δ Corruption	0.162*** (4.31)	0.152*** (4.04)	0.145*** (3.86)
Same border	0.029** (2.13)	0.028** (2.10)	0.027** (2.04)
Same language	0.036** (2.25)	0.031** (2.04)	0.028* (1.86)
Same legal system	0.033*** (4.40)	0.032*** (4.43)	0.032*** (4.37)

p-values from the Wald test			
Diff. of ln (1+ CDIST) coef. over Number of Prior Mergers			
Prior vs. No Prior M&A	0.000		
0 vs. 1-4		0.000	
1-4 vs. >4		0.000	
0 vs. 1			0.035
1 vs. 2-4			0.022
2-4 vs. 5-15			0.003
5-15 vs. more than 15			0.009
Pseudo-R ²	11,160	11,160	11,160
N	1,204	1,210	1,213

Table A.5: Model specification

Cultural distance and merger activity across different prior merger thresholds and different subsamples.

Tobit regression of a gravity model. Dependent variable is CBMA% Count. All the variables are defined in Appendix A. The main sample covers periods between 1995-1998, 2005-2008, and 2017-2020. Cultural distance is a composite measure constructed using data from the World Values Survey. $|\Delta|$ indicates the absolute difference between the acquirer and target nation variables. A constant is included in each specification but not reported in the table. Acquirer country-year and target country-year effects are included in each specification. p -values at the bottom of the table correspond to a series of Wald tests of the equality of cultural distance coefficients from one prior mergers bin to the next. The standard errors in all estimations are clustered by country pair. Significance at 10%, 5%, and 1% is indicated by *, **, and *** with t -statistic in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)
	Model					
	Tobit	Tobit	Tobit	Tobit	Tobit	RE Tobit
ln (1+CDIST) over Prior Number of Mergers						
Zero	-0.231*** (-10.53)	-0.239*** (-9.60)	-0.196*** (-9.04)	-0.133*** (-8.72)	-0.096*** (-7.00)	-0.073*** (-5.93)
One to two	-0.119*** (-7.10)	-0.161*** (-8.04)	-0.133*** (-7.46)	-0.092*** (-6.57)	-0.064*** (-5.21)	-0.060*** (-5.04)
Three to ten	-0.032** (-2.43)	-0.091*** (-6.01)	-0.078*** (-5.68)	-0.046*** (-3.97)	-0.027*** (-2.64)	-0.039*** (-3.38)
More than ten	0.107*** (7.09)	-0.001 (-0.08)	-0.008 (-0.58)	-0.010 (-0.80)	-0.000 (-0.04)	-0.021* (-1.75)
Control variables	None	None	Deal-level	Country-pair	All	All
Acquirer country fixed effects	No	No	No	No	Yes	No
Target country fixed effects	No	No	No	No	Yes	No
Year fixed effects	No	No	No	No	Yes	No
Acquirer country-year fixed effects	No	Yes	Yes	Yes	No	Yes
Target country-year fixed effects	No	Yes	Yes	Yes	No	Yes
p-values from the Wald test						
Diff. of ln (1+ CDIST) coef. over Number of Prior Mergers						
Zero vs. one to two	0.000	0.000	0.000	0.000	0.018	0.144
One to two vs. three to ten	0.000	0.000	0.000	0.000	0.000	0.008
Three to ten vs. more than ten	0.000	0.000	0.000	0.000	0.011	0.024
Pseudo-R ²	0.569	0.885	1.296	1.012	1.217	
Log likelihood	-1125.053	-301.282	297.157	30.190	130.207	661.890
N	11,160	11,160	11,160	11,160	11,160	11,160

References

- Agcayazi, B., Hibbert, A.M., Morillon, T.G., 2024. CEO international background and cross-border M&As. *Journal of Banking & Finance*, p.107129.
- Ahern, K.R., Daminelli, D., Fracassi, C., 2015. Lost in translation? The effect of cultural values on mergers around the world. *Journal of Financial Economics*, 117(1), 165-189.
- Alimov, A., Officer, M. S., 2017. Intellectual property rights and cross-border mergers and acquisitions. *Journal of Corporate Finance*, 45, 360-377.
- Al Rahahleh, N., Wei, P. P., 2013. Frequent cross-border acquirers from emerging countries and cultural distance: Does the cultural difference of the initial deal matter? *Journal of Multinational Financial Management*, 23(4), 356-373.
- Aybar, B., Ficici, A., 2009. Cross-border acquisitions and firm value: An analysis of emerging-market multinationals. *Journal of International Business Studies*, 40, 1317-1338.
- Baldwin, R., Taglioni, D., 2006. Gravity for Dummies and Dummies for Gravity Equations. NBER Working Paper No. 12516. Cambridge, MA.

Barthel, F., Busse, M., Neumayer, E., 2010. The impact of double taxation treaties on foreign direct investment: evidence from large dyadic panel data. *Contemporary Economic Policy*, 28(3), pp.366-377.

Belot, M., Ederveen, S., 2012. Cultural Barriers in Migration between OECD Countries. *Journal of Population Economics* 25(3): 1077-1105.

Bhagwat, V., Brogaard, J., Julio, B., 2021. A BIT goes a long way: Bilateral investment treaties and cross-border mergers. *Journal of Financial Economics*, 140(2), pp.514-538.

Bris, A. and Cabolis, C., 2008. The value of investor protection: Firm evidence from cross-border mergers. *The Review of Financial Studies*, 21(2), pp.605-648.

Chakrabarti, R., Gupta-Mukherjee, S., Jayaraman N., 2009. Mars-Venus Marriages: Culture and Cross-border M&A. *Journal of International Business Studies* 40(2): 216–236.

Collins, J.D., Holcomb, T.R., Certo, S.T., Hitt, M.A., Lester, R.H., 2009. Learning by doing: Cross-border mergers and acquisitions. *Journal of Business Research*, 62(12), 1329-1334.

Datta, D. K., Puia, G., 1995. Cross-border acquisitions: An examination of the influence of relatedness and cultural fit on shareholder value creation in US acquiring firms. *Management International Review* 337-359.

Del Gatto, M, Mastinu, C.S., 2021. Geographical and cultural patterns in cross-border mergers and acquisitions: the role of experience. *Spatial Economic Analysis* 16(4): 487-50.

Ding, H., Hu, Y., Li, C., Lin, S., 2021. CEO country-specific experience and cross-border mergers and acquisitions. *Journal of Corporate Finance*, 69, 102039.

Dikova, D., Sahib S.R., 2013. Is Cultural Distance a Bane or a Boon for Cross-border Acquisition Performance? *Journal of World Business* 48(1): 77-86.

Emmerich, A.O., Panovka, R., 2023. Cross-Border M&A – 2023 Checklist for Successful Acquisitions in the U.S. Harvard Law School Forum on Corporate Governance. Online: <https://corpgov.law.harvard.edu/2023/01/07/cross-border-ma-2023-checklist-for-successful-acquisitions-in-the-u-s/>.

Erel, I., Liao, R.C., Weisbach, M.S., 2012. Determinants of cross-border mergers and acquisitions. *The Journal of finance*, 67(3), pp.1045-1082.

Erel, I., Jang, Y. Weisbach, M.S., 2024. Cross-border mergers and acquisitions. In *Handbook of Corporate Finance* (pp. 345-376). Edward Elgar Publishing.

Francis, B. B., Hasan, I., Sun, X., Waisman, M., 2014. Can firms learn by observing? Evidence from cross-border M&As. *Journal of Corporate Finance*, 25, 202-215.

Froot, K.A. and Stein, J.C., 1991. Exchange rates and foreign direct investment: an imperfect capital markets approach. *The Quarterly Journal of Economics*, 106(4), pp.1191-1217.

Fuller, K., Netter, J. and Stegemoller, M., 2002. What do returns to acquiring firms tell us? Evidence from firms that make many acquisitions. *The Journal of Finance*, 57(4), pp.1763-1793.

Green, W., 2004. The behavior of the fixed effects estimator in non-linear models. *Econometrics Journal* 7: 98–119.

Guiso, L., Sapienza, P., Zingales, L., 2006. Does Culture Affect Economic Outcomes? *Journal of Economic Perspectives* 20(2): 23-48.

Greene, W., 2004. The behavior of the maximum likelihood estimator of limited dependent variable models in the presence of fixed effects. *The Econometrics Journal*, 7(1), pp.98-119.

Gregory, A., McCorriston, S., 2005. Foreign acquisitions by UK limited companies: short-and long-run performance. *Journal of Empirical Finance*, 12(1), 99-125.

Hofstede, G., Berry, J., Lonner, W., 1980. Culture's Consequences: International Differences in World Related Issues'. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship.

Hofstede, G., 2001. Culture's consequences: Comparing values, behaviors, institutions and organizations across nations. Sage publications.

House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W. Gupta, V. eds., 2004. Culture, leadership, and organizations: The GLOBE study of 62 societies. Sage publications.

Huizinga, H.P. and Voget, J., 2009. International taxation and the direction and volume of cross-border M&As. *The Journal of Finance*, 64(3), pp.1217-1249.

Inglehart, R., Baker, W.E., 2000. Modernization, Cultural Change, and the Persistence of Traditional Values. *American Sociological Review* 65(1): 19-51.

Karolyi, G. A., 2016. The gravity of culture for finance. *Journal of Corporate Finance*, 41, 610-625.

Kogut, B., Singh, H., 1988. The Effect of National Culture on the Choice of Entry Mode. *Journal of International Business Studies* 19(3): 411–432.

Kogut, B., Zander U., 1993. Knowledge of the Firm and the Evolutionary Theory of the Multinational Corporation. *Journal of International Business Studies* 24: 625-645.

Lawrence, E. R., Raithatha, M., Rodriguez, I., 2021. The effect of cultural and institutional factors on initiation, completion, and duration of cross-border acquisitions. *Journal of Corporate Finance*, 68, 101950.

Liu, T.C., Pursiainen V.P., 2018. Regional Culture in Mergers and Acquisitions. 2018 Financial Management Association Asia/Pacific Conference, Hong Kong, 16-18 May 2018.

Morosini, P., Shane, S., Singh, H., 1998. National Cultural Distance and Cross-border Acquisition Performance. *Journal of International Business Studies* 29(1): 137–158.

Mulherin, J.H., Netter, J.M., Poulsen, A.B., 2017. The Evidence on Mergers and Acquisitions: A Historical and Modern Report. *The Handbook of the Economics of Corporate Governance*, Benjamin E. Hermalin and Michael S. Weisbach (Eds.) North Holland.

Popli, M., Akbar, M., Kumar, V., Gaur, A., 2016. Reconceptualizing Cultural Distance: The Role of Cultural Experience Reserve in Cross-border Acquisitions. *Journal of World Business* 51(3): 404–412.

Renneboog, L., Vansteenkiste, C., 2019. Failure and success in mergers and acquisitions. *Journal of Corporate Finance*, 58, 650-699.

Reus, T. H., Lamont, B. T., 2009. The double-edged sword of cultural distance in international acquisitions. *Journal of International Business Studies*, 40, 1298-1316.

Rozen-Bakher, Z., 2018. How do each dimension of Hofstede's national culture separately influence M&A success in cross-border M&As? *Transnational Corporations Review* 10(2): 131-146.

Sarala, R. M., Vaara, E., 2010. Cultural differences, convergence, and crossvergence as explanations of knowledge transfer in international acquisitions. *Journal of International Business Studies*, 41, 1365-1390.

Shenkar, O., 2012. Cultural Distance Revisited: Towards a More Rigorous Conceptualization and Measurement of Cultural Differences. *Journal of International Business Studies* 43(1): 1-11.

Siegel, J.I., Licht, A.N., Schwartz, S.H., 2011. Egalitarianism and International Investment. *The Journal of Financial Economics* 102(3): 621-642.

Spolaore, E. Wacziarg, R., 2009. The Diffusion of Development. *The Quarterly Journal of Economics* 124(2): 469-529.

Steigner, T., Sutton, N. K., 2011. How does national culture impact internalization benefits in cross-border mergers and acquisitions? *Financial Review*, 46(1), 103-125.

Stroup, C., 2017. International deal experience and cross-border acquisitions. *Economic Inquiry*, 55(1), 73-97.

Wang, Y., Yin, S., 2018. CEO educational background and acquisition targets selection. Journal of Corporate Finance, 52, pp.238-259.

Wooldridge, J. M., 2010. Econometric analysis of cross section and panel data. MIT press.