

# Lost In translation? The effect of cultural values on mergers around the world

## Online Appendix

### 1. Introduction

This online appendix presents additional tables of robustness checks and complete results for abbreviated tables in the article. Each table refers to a table in the article and the regressions are identical to the main regressions except for new variables or data filters, unless otherwise noted. Alternative cultural variables used in robustness checks and the methodology of long-run returns are described below.

### 2. List of tables

The following provides a correspondence between the tables in the main paper, the online appendix, and the description of the online appendix table.

Online appendix	Main paper	Robustness
Table OA.1	Table 3	Merger counts rather than dollar volume
Table OA.2	Table 3	Hofstede cultural dimensions
Table OA.3	Table 3	Schwartz cultural dimensions
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### 3. Alternative cultural values

The Hofstede (1980, 2001) dimensions of national culture:

- (1) *Power distance*: the extent to which societies expect that power is distributed unequally (similar to the hierarchy dimension from the World Value Survey that is used in the main paper).

- (2) *Individualism*: the extent to which people identify themselves as separate from their social group (similar to the individualism dimension from the World Value Survey that is used in the main paper).
- (3) *Masculinity*: the extent to which a society holds values traditionally identified as masculine: assertiveness, materialism, and not caring for others.
- (4) *Uncertainty Avoidance*: the extent to which a society feels threatened by uncertainty.
- (5) *Long-term orientation*: the importance a society places on the future versus the past or present. Note that we do not include long-term orientation in our tests because this dimension was not measured until 2001 and then mainly for countries in Eastern Asia (61 percent of the countries in our sample are missing this variable).

The Schwartz (1994) dimensions of national culture:

- (1) *Egalitarianism versus Hierarchy*: Egalitarian societies believe individuals are more or less equal, whereas Hierarchical societies believe some individuals have greater social rank than others (similar to the hierarchy dimension from the World Value Survey that is used in the main paper)
- (2) *Mastery versus Harmony*: Mastery is an emphasis on dominating an environment through assertion and harmony refers to finding one's place in an existing environment
- (3) *Embeddedness versus Autonomy*: Embedded cultures believe the identity of individuals should be tied to the social group, whereas autonomous societies believe identities are unique to the individual (similar to the individualism dimension from the World Value Survey that is used in the main paper) environment.

#### 4. Long-run returns methodology

For each deal in the sample we calculate the long-run buy-and-hold abnormal return (BHAR) to an acquirer as follows. We collect monthly returns for every firm covered by Compustat Global or CRSP, using the security issue with the highest cumulative trading volume if multiple securities for the same firm are observed. For each firm we calculate abnormal returns as the difference between the firm's 36 month cumulative return and either a world benchmark or a country-level benchmark. The world benchmark is formed using a  $3 \times 3 \times 3$  sorting of market

equity, book-to-market, and momentum across all firms in the world, excluding the firm. The country benchmark forms the benchmark portfolios using only returns in the same country as the firm. In one sample of mergers, we omit acquisitions if the acquirer has made an acquisition in the prior 36 months. This way we do not double-count the same firm. In a separate sample, we include all mergers, even if their three-year post-completion windows overlap. We use the 36-month BHAR which starts in the first month after the acquisition is completed. These abnormal long-run returns are the observations of our dependent variable in our robustness tests.

**Table OA.1**

Cultural distance and merger counts.

The dependent variable is the natural log of the aggregate number of all mergers from acquirer country  $i$  to target country  $j$  in a panel from 1991 to 2008. Tobit regressions of a gravity model are run in columns (1)–(4) and OLS in (5) and (6). Trust is measured as whether people believe most other people can be trusted or not. Hierarchy is whether people believe they should follow instructions from a superior at work even if they do not agree vs. having to be convinced first. Individualism is whether people believe income differences are an incentive for effort vs. whether incomes should be made more equal.  $|\Delta|$  indicates the absolute difference between the acquirer and target nation variables. All variables are defined in the appendix. A constant is included in each specification but not reported in the table. Inclusion of fixed effects (FE) are indicated at the end. Significance at 10%, 5%, and 1%, indicated by \*, \*\*, and \*\*\* with  $p$ -values double-clustered at the acquirer and target country levels in parentheses.

	ln(1 + number of mergers)					
	Tobit (1)	Tobit (2)	Tobit (3)	Tobit (4)	OLS (5)	OLS (6)
ln(1+   $\Delta$ Trust )	−0.965*** ( $< 0.001$ )			−0.893*** ( $< 0.001$ )	−0.344*** (0.001)	−0.321*** (0.006)
ln(1+   $\Delta$ Hierarchy )		−1.155*** ( $< 0.001$ )		−1.079*** ( $< 0.001$ )	−0.830*** (0.001)	−0.851*** (0.001)
ln(1+   $\Delta$ Individualism )			−0.769** (0.012)	−0.674** (0.018)	−0.226** (0.038)	−0.150 (0.150)
ln(Acquirer nation GDP)	0.641** (0.030)	0.687** (0.036)	0.608** (0.034)	0.690** (0.036)	0.134 (0.199)	
ln(Target nation GDP)	1.013*** ( $< 0.001$ )	1.066*** ( $< 0.001$ )	1.003*** ( $< 0.001$ )	1.052*** ( $< 0.001$ )	0.115 (0.116)	
ln(Acquirer openness)	3.632 (0.138)	3.291 (0.157)	3.489 (0.150)	3.669 (0.119)	1.252** (0.045)	
ln(Target openness)	3.267 (0.195)	3.007 (0.245)	3.304 (0.190)	3.291 (0.190)	0.821 (0.247)	
ln(Acquirer GDP/capita)	0.452 (0.960)	−0.576 (0.952)	−0.566 (0.952)	0.653 (0.943)	−1.828 (0.481)	
ln(Target GDP/capita)	−22.992** (0.022)	−23.202** (0.018)	−23.659** (0.019)	−22.949** (0.017)	−2.140 (0.414)	
ln(1+   $\Delta$ Corporate tax rate )	−2.264*** ( $< 0.001$ )	−2.226*** ( $< 0.001$ )	−2.264*** ( $< 0.001$ )	−2.082*** (0.001)	−0.704** (0.015)	−0.600** (0.029)
Same religion	0.300*** ( $< 0.001$ )	0.281*** ( $< 0.001$ )	0.296*** ( $< 0.001$ )	0.267*** ( $< 0.001$ )	0.099** (0.029)	0.090** (0.044)
Same language	0.690*** ( $< 0.001$ )	0.694*** ( $< 0.001$ )	0.709*** ( $< 0.001$ )	0.648*** ( $< 0.001$ )	0.573*** ( $< 0.001$ )	0.488*** ( $< 0.001$ )

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Table OA.1 - *Continued*

	Tobit (1)	Tobit (2)	Tobit (3)	Tobit (4)	OLS (5)	OLS (6)
ln(Geographic distance)	-0.513*** ( $< 0.001$ )	-0.508*** ( $< 0.001$ )	-0.515*** ( $< 0.001$ )	-0.497*** ( $< 0.001$ )	-0.116*** ( $< 0.001$ )	-0.128*** ( $< 0.001$ )
Share border	0.272*** ( $< 0.001$ )	0.284*** ( $< 0.001$ )	0.287*** ( $< 0.001$ )	0.263*** ( $< 0.001$ )	0.376*** ( $< 0.001$ )	0.332*** ( $< 0.001$ )
Exchange rate volatility	0.025*** ( $< 0.001$ )	0.021*** ( $< 0.001$ )	0.022*** ( $< 0.001$ )	0.025*** ( $< 0.001$ )	0.010*** ( $< 0.001$ )	0.013** (0.012)
Exchange rate growth	0.008*** ( $< 0.001$ )	0.008*** ( $< 0.001$ )	0.008*** ( $< 0.001$ )	0.008*** ( $< 0.001$ )	0.001*** (0.005)	0.000 (0.817)
Double-tax treaty	0.070 (0.173)	0.071 (0.189)	0.077 (0.146)	0.061 (0.220)	-0.083*** (0.001)	-0.080*** (0.004)
Bilateral investment treaty	0.175*** ( $< 0.001$ )	0.149*** (0.005)	0.164*** (0.002)	0.159*** ( $< 0.001$ )	-0.002 (0.952)	-0.020 (0.537)
Same legal system	0.122*** (0.003)	0.276*** ( $< 0.001$ )	0.263*** ( $< 0.001$ )	0.157*** ( $< 0.001$ )	0.109** (0.019)	0.114** (0.035)
ln(Imports from acq. nation)	-0.021*** ( $< 0.001$ )	-0.021*** ( $< 0.001$ )	-0.021*** ( $< 0.001$ )	-0.019*** ( $< 0.001$ )	-0.022*** ( $< 0.001$ )	-0.041*** ( $< 0.001$ )
Private mergers	1.592*** ( $< 0.001$ )	1.593*** ( $< 0.001$ )	1.599*** ( $< 0.001$ )	1.582*** ( $< 0.001$ )	0.927*** ( $< 0.001$ )	0.904*** ( $< 0.001$ )
Public mergers	1.585*** ( $< 0.001$ )	1.577*** ( $< 0.001$ )	1.587*** ( $< 0.001$ )	1.569*** ( $< 0.001$ )	0.885*** ( $< 0.001$ )	0.848*** ( $< 0.001$ )
Acquirer country FE	Yes	Yes	Yes	Yes	Yes	No
Target country FE	Yes	Yes	Yes	Yes	Yes	No
Year FE	Yes	Yes	Yes	Yes	Yes	No
Acquirer country-year FE	No	No	No	No	No	Yes
Target country-year FE	No	No	No	No	No	Yes
Log likelihood	-9,713	-9,721	-9,738	-9,681		
Constant only log likelihood	-21,039	-21,039	-21,039	-21,039		
Adjusted $R^2$					0.680	0.690
Observations	27,753	27,753	27,753	27,753	27,753	27,753

Table OA.2

Hofstede cultural distance and merger volume.

The dependent variable is the natural log of the aggregate dollar value of all mergers from acquirer country  $i$  to target country  $j$  in a panel from 1991 to 2008. Tobit regressions of a gravity model are run in columns (1)–(5) and OLS in (6) and (7). ‘PDI’ is power distance, ‘IDV’ is individualism, ‘UAI’ is uncertainty avoidance, and ‘MAS’ is masculinity. We do not include long-term orientation because sample observations are few.  $|\Delta|$  indicates the absolute difference between the acquirer and target nation variables. All variables are defined in the appendix. A constant is included in each specification but not reported in the table. Inclusion of fixed effects (FE) are indicated at the end. ‘Controls’ indicates all the variables in Table 3. Significance at 10%, 5%, and 1%, indicated by \*, \*\*, and \*\*\* with  $p$ -values double-clustered at the acquirer and target country levels in parentheses.

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**Table OA.3**

Schwartz cultural distance and merger volume.

The dependent variable is the natural log of the aggregate dollar value of all mergers from acquirer country  $i$  to target country  $j$  in a panel from 1991 to 2008. Tobit regressions of a gravity model are run in columns (1)–(4) and OLS in (5) and (6). Cultural values are defined in the text of the online appendix.  $|\Delta|$  indicates the absolute difference between the acquirer and target nation variables. All variables are defined in the appendix. A constant is included in each specification but not reported in the table. Inclusion of fixed effects (FE) are indicated at the end. ‘Controls’ indicates all the variables in Table 3. Significance at 10%, 5%, and 1%, indicated by \*, \*\*, and \*\*\* with  $p$ -values double-clustered at the acquirer and target country levels in parentheses.

	ln(1+Dollar volume of mergers)					
	Tobit (1)	Tobit (2)	Tobit (3)	Tobit (4)	OLS (5)	OLS (6)
ln(1+ $ \Delta $ Egalitarianism)	−0.871** (0.041)			−0.887* (0.075)	−0.155 (0.133)	−0.134 (0.216)
ln(1+ $ \Delta $ Harmony)		0.159 (0.720)		0.371 (0.434)	0.187 (0.406)	0.200 (0.383)
ln(1+ $ \Delta $ Embeddedness)			−0.327 (0.236)	−0.164 (0.651)	−0.337 (0.101)	−0.340 (0.116)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Acquirer country FE	Yes	Yes	Yes	Yes	Yes	No
Target country FE	Yes	Yes	Yes	Yes	Yes	No
Year FE	Yes	Yes	Yes	Yes	Yes	No
Acquirer country-year FE	No	No	No	No	No	Yes
Target country-year FE	No	No	No	No	No	Yes
Log likelihood	−14790	−14795	−14795	−14789		
Constant only log likelihood	−21880	−21880	−21880	−21880		
Adjusted $R^2$					0.680	0.684
Observations	17,553	17,553	17,553	17,553	17,553	17,553

**Table OA.4**

Cultural distance and merger volume excluding U.S. firms.

The dependent variable is the natural log of the aggregate dollar value of all mergers from acquirer country  $i$  to target country  $j$  in a panel from 1991 to 2008, excluding U.S. firms. Tobit regressions of a gravity model are run in columns (1)–(4) and OLS in (5) and (6). Trust is measured as whether people believe most other people can be trusted or not. Hierarchy is whether people believe they should follow instructions from a superior at work even if they do not agree vs. having to be convinced first. Individualism is whether people believe income differences are an incentive for effort vs. whether incomes should be made more equal.  $|\Delta|$  indicates the absolute difference between the acquirer and target nation variables. All variables are defined in the appendix. A constant is included in each specification but not reported in the table. Inclusion of fixed effects (FE) are indicated at the end. Significance at 10%, 5%, and 1%, indicated by \*, \*\*, and \*\*\* with  $p$ -values double-clustered at the acquirer and target country levels in parentheses.

	ln(1+Dollar volume of mergers)					
	Tobit (1)	Tobit (2)	Tobit (3)	Tobit (4)	OLS (5)	OLS (6)
ln(1+ $ \Delta$ Trust )	−2.302** (0.016)			−2.168** (0.025)	−0.687** (0.014)	−0.674** (0.026)
ln(1+ $ \Delta$ Hierarchy )		−1.977** (0.029)		−1.732* (0.057)	−1.004*** ( $< 0.001$ )	−1.100*** ( $< 0.001$ )
ln(1+ $ \Delta$ Individualism )			−2.867*** (0.002)	−2.726*** (0.002)	−0.645*** (0.004)	−0.513** (0.032)
ln(Acquirer nation GDP)	2.230** (0.011)	2.297** (0.012)	2.140** (0.012)	2.283** (0.013)	0.318 (0.165)	
ln(Target nation GDP)	2.799*** (0.006)	2.891*** (0.004)	2.750*** (0.006)	2.842*** (0.005)	0.020 (0.917)	
ln(Acquirer openness)	3.893 (0.688)	3.521 (0.710)	3.743 (0.699)	4.394 (0.654)	0.290 (0.822)	
ln(Target openness)	2.850 (0.732)	2.796 (0.741)	3.266 (0.693)	3.518 (0.667)	0.017 (0.990)	
ln(Acquirer GDP/capita)	22.834 (0.402)	19.489 (0.485)	20.272 (0.459)	22.473 (0.410)	4.212 (0.424)	
ln(Target GDP/capita)	−74.484** (0.029)	−75.667** (0.026)	−75.968** (0.024)	−75.224** (0.024)	3.544 (0.597)	
ln(1+ $ \Delta$ Corporate tax rate )	−4.497* (0.058)	−4.600* (0.057)	−4.562* (0.063)	−3.984* (0.088)	−0.690 (0.230)	−0.494 (0.398)
Same religion	0.761*** ( $< 0.001$ )	0.722*** ( $< 0.001$ )	0.720*** ( $< 0.001$ )	0.691*** ( $< 0.001$ )	0.228*** ( $< 0.001$ )	0.210*** (0.002)
Same language	1.312*** ( $< 0.001$ )	1.340*** ( $< 0.001$ )	1.324*** ( $< 0.001$ )	1.200*** ( $< 0.001$ )	0.804*** ( $< 0.001$ )	0.638*** (0.001)

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Table OA.4 - *Continued*

	Tobit (1)	Tobit (2)	Tobit (3)	Tobit (4)	OLS (5)	OLS (6)
ln(Geographic distance)	-1.709*** ( $< 0.001$ )	-1.718*** ( $< 0.001$ )	-1.713*** ( $< 0.001$ )	-1.681*** ( $< 0.001$ )	-0.382*** ( $< 0.001$ )	-0.405*** ( $< 0.001$ )
Share border	0.774*** ( $< 0.001$ )	0.820*** ( $< 0.001$ )	0.799*** ( $< 0.001$ )	0.759*** ( $< 0.001$ )	0.864*** ( $< 0.001$ )	0.801*** ( $< 0.001$ )
Exchange rate volatility	0.129*** ( $< 0.001$ )	0.126*** ( $< 0.001$ )	0.134*** ( $< 0.001$ )	0.133*** ( $< 0.001$ )	0.035*** ( $< 0.001$ )	0.000 (0.990)
Exchange rate growth	0.016*** ( $< 0.001$ )	0.016*** ( $< 0.001$ )	0.016*** ( $< 0.001$ )	0.016*** ( $< 0.001$ )	0.001 (0.313)	-0.001 (0.719)
Double-tax treaty	0.536*** (0.008)	0.541*** (0.009)	0.556*** (0.007)	0.522*** (0.008)	-0.117*** (0.009)	-0.107** (0.025)
Bilateral investment treaty	-0.152 (0.464)	-0.207 (0.334)	-0.188 (0.377)	-0.171 (0.397)	-0.246** (0.024)	-0.284** (0.013)
Same legal system	0.794*** ( $< 0.001$ )	1.148*** ( $< 0.001$ )	1.157*** ( $< 0.001$ )	0.853*** ( $< 0.001$ )	0.464*** ( $< 0.001$ )	0.476*** ( $< 0.001$ )
ln(Imports from acq. nation)	-0.013 (0.109)	-0.014 (0.106)	-0.012 (0.191)	-0.007 (0.408)	-0.033*** ( $< 0.001$ )	-0.064*** ( $< 0.001$ )
Private mergers	5.354*** ( $< 0.001$ )	5.363*** ( $< 0.001$ )	5.361*** ( $< 0.001$ )	5.345*** ( $< 0.001$ )	2.290*** ( $< 0.001$ )	2.239*** ( $< 0.001$ )
Public mergers	6.691*** ( $< 0.001$ )	6.682*** ( $< 0.001$ )	6.693*** ( $< 0.001$ )	6.668*** ( $< 0.001$ )	4.588 ( $< 0.001$ )	4.504*** ( $< 0.001$ )
Acquirer country FE	Yes	Yes	Yes	Yes	Yes	No
Target country FE	Yes	Yes	Yes	Yes	Yes	No
Year FE	Yes	Yes	Yes	Yes	Yes	No
Acquirer country-year FE	No	No	No	No	No	Yes
Target country-year FE	No	No	No	No	No	Yes
Log likelihood	-16,558	-16,561	-16,561	-16,540		
Constant only log likelihood	-23,698	-23,698	-23,698	-23,698		
Adjusted $R^2$					0.631	0.637
Observations	26,437	26,437	26,437	26,437	26,437	26,437

**Table OA.5**

First-stage regressions of genetic and somatic distance on cultural differences.

The dependent variable is the natural log of the absolute difference in cultural values (trust, hierarchy, or individualism) between acquirer country  $i$  and target country  $j$  in a panel from 1991 to 2008. Trust is measured as whether people believe most other people can be trusted or not. ‘Genetic distance’ is based on  $\ln(F_{st})$ , a measure of genetic difference for the majority population in a country (Cavalli-Sforza, Menozzi, and Piazza, 1994). Somatic distance is a measure of somatic distance based on height, hair color (pigmentation), and cephalic index (Biasutti, 1954). Hierarchy is whether people believe they should follow instructions from a superior at work even if they do not agree vs. having to be convinced first. Individualism is whether people believe income differences are an incentive for effort vs. whether incomes should be made more equal.  $|\Delta|$  indicates the absolute difference between the acquirer and target nation variables. All variables are defined in the appendix. A constant is included in each specification but not reported in the table. Inclusion of fixed effects (FE) are indicated at the end. Significance at 10%, 5%, and 1%, indicated by \*, \*\*, and \*\*\* with  $p$ -values clustered at the acquirer-target country-pair level in parentheses.

	$\ln( \Delta  \text{ Cultural value }  )$					
	Trust (1)	Hierarchy (2)	Individualism (3)	Trust (4)	Hierarchy (5)	Individualism (6)
$\ln(1+\text{Genetic distance})$	0.004*** ( $< 0.001$ )	0.002*** ( $< 0.001$ )	0.002*** (0.009)			
$\ln(1+\text{Somatic distance})$				0.118*** ( $< 0.001$ )	-0.004 (0.340)	0.013 (0.105)
$\ln(\text{Acquirer nation GDP})$	0.007 (0.359)	0.037*** ( $< 0.001$ )	-0.027*** ( $< 0.001$ )	0.138** (0.033)	0.059 (0.478)	-0.111 (0.263)
$\ln(\text{Target nation GDP})$	0.006 (0.378)	0.037*** ( $< 0.001$ )	-0.027*** ( $< 0.001$ )	0.135** (0.037)	0.055 (0.500)	-0.112 (0.255)
$\ln(\text{Acquirer openness})$	0.022 (0.595)	-0.011 (0.804)	0.094** (0.024)	-0.225 (0.478)	0.546 (0.129)	0.342 (0.390)
$\ln(\text{Target openness})$	0.052 (0.204)	0.011 (0.796)	0.117*** (0.004)	-0.240 (0.447)	0.539 (0.136)	0.333 (0.404)
$\ln(\text{Acquirer GDP/capita})$	1.641*** ( $< 0.001$ )	0.180 (0.492)	0.086 (0.677)	-5.685*** (0.002)	-1.190 (0.565)	3.957* (0.074)
$\ln(\text{Target GDP/capita})$	1.590*** ( $< 0.001$ )	0.140 (0.593)	0.007 (0.973)	-5.506*** (0.002)	-1.030 (0.616)	4.032* (0.069)
$\ln(1+ \Delta  \text{ Corporate tax rate})$	0.067* (0.053)	0.014 (0.623)	0.028 (0.313)	0.039 (0.831)	0.054 (0.527)	-0.037 (0.679)
Same religion	-0.020*** ( $< 0.001$ )	-0.008** (0.014)	-0.021*** ( $< 0.001$ )	0.027*** (0.006)	-0.023*** ( $< 0.001$ )	-0.009 (0.126)
Same language	-0.030*** ( $< 0.001$ )	-0.028*** ( $< 0.001$ )	-0.024*** ( $< 0.001$ )	0.040** (0.015)	-0.014** (0.032)	0.005 (0.652)

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Table OA.5 - *Continued*

	Trust (1)	Hierarchy (2)	Individualism (3)	Trust (4)	Hierarchy (5)	Individualism (6)
ln(Geographic distance)	0.002 (0.348)	0.002 (0.163)	0.002 (0.161)	0.022 (0.174)	-0.001 (0.858)	0.023*** (0.005)
Share border	-0.019** (0.011)	-0.008 (0.130)	-0.011* (0.063)	0.041** (0.016)	0.006 (0.439)	0.018** (0.037)
Exchange rate volatility	0.000 (0.559)	0.000 (0.856)	0.002** (0.026)	33.800 (0.274)	63.952*** (0.004)	37.354 (0.175)
Exchange rate growth	0.000 (0.691)	0.000 (0.651)	0.000 (0.608)	-0.133 (0.926)	-0.202 (0.892)	-0.350 (0.809)
Double-tax treaty	-0.010*** (0.005)	-0.003 (0.221)	0.001 (0.682)	0.000 (0.969)	-0.007 (0.333)	0.001 (0.892)
Bilateral investment treaty	0.028*** ( $< 0.001$ )	-0.007*** (0.002)	-0.002 (0.372)	0.002 (0.934)	-0.041*** ( $< 0.001$ )	-0.036*** (0.006)
Same legal system	-0.151*** ( $< 0.001$ )	0.005 (0.475)	0.009** (0.027)	-0.138*** ( $< 0.001$ )	0.003 (0.686)	0.015** (0.033)
ln(Imports from acq. nation)	0.001*** ( $< 0.001$ )	0.001*** ( $< 0.001$ )	0.001*** ( $< 0.001$ )	0.001 (0.137)	0.001*** (0.009)	0.000 (0.364)
Private mergers	-0.008** (0.012)	0.002 (0.412)	-0.004** (0.039)	0.001 (0.777)	-0.007** (0.020)	0.002 (0.508)
Public mergers	-0.009** (0.018)	-0.012*** ( $< 0.001$ )	-0.004* (0.088)	0.014* (0.080)	0.004 (0.524)	0.005 (0.335)
Acquirer country FE	Yes	Yes	Yes	Yes	Yes	Yes
Target country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted $R^2$	0.492	0.437	0.348	0.746	0.519	0.355
Observations	27,753	27,753	27,753	2,844	2,844	2,844

**Table OA.6**

Cultural distance and combined abnormal returns excluding U.S. firms.

Dependent variable is the combined abnormal announcement return of the target and acquirer over  $(-1, +1)$  days, weighted by market values. OLS estimates are presented where the sample includes only observations of cross-border deals that do not include a U.S. firm.  $|\Delta|$  indicates absolute difference between acquirer and target nation variables. 'Heckman's lambda' is a self-selection variable. All variables defined in the appendix. A constant is included in each specification but not reported in the table. Significance at 10%, 5%, and 1%, indicated by \*, \*\*, and \*\*\* with  $p$ -values double-clustered at the acquirer and target country levels in parentheses.

	Combined $CAR_{(-1,+1)}$			
	(1)	(2)	(3)	(4)
$\ln(1 +  \Delta \text{ Trust} )$	-0.119** (0.021)			-0.108** (0.031)
$\ln(1 +  \Delta \text{ Hierarchy} )$		-0.050 (0.786)		-0.030 (0.860)
$\ln(1 +  \Delta \text{ Individualism} )$			-0.181** (0.036)	-0.157** (0.019)
Transaction value	0.297** (0.041)	0.330 (0.180)	0.290** (0.044)	0.291* (0.088)
Relative size	0.009** (0.019)	0.009** (0.018)	0.009** (0.016)	0.009** (0.018)
Acquirer market value	-1.142*** (0.001)	-1.114*** ( $< 0.001$ )	-1.119*** ( $< 0.001$ )	-1.136*** (0.001)
Majority cash	0.008 (0.528)	0.012 (0.357)	0.011 (0.374)	0.008 (0.490)
Tender offer	0.012 (0.261)	0.012 (0.266)	0.011 (0.316)	0.011 (0.321)
Friendly offer	0.009 (0.597)	0.008 (0.638)	0.009 (0.593)	0.010 (0.558)
Same industry	-0.006 (0.519)	-0.004 (0.667)	-0.005 (0.604)	-0.007 (0.479)
Acquirer termination fee	-0.046 (0.211)	-0.046 (0.163)	-0.049 (0.139)	-0.050 (0.126)
Target termination fee	0.010 (0.772)	0.013 (0.708)	0.014 (0.677)	0.012 (0.713)
Target defense	0.049 (0.365)	0.035 (0.479)	0.044 (0.384)	0.051 (0.354)
Acquirer past return	0.000 (0.599)	0.000 (0.692)	0.000 (0.456)	0.000 (0.597)
Acquirer past volatility	0.118 (0.565)	0.130 (0.497)	0.077 (0.700)	0.068 (0.710)
Target past return	-0.006 (0.391)	-0.006 (0.375)	-0.006 (0.362)	-0.006 (0.347)
Target past volatility	0.000 (0.996)	0.004 (0.918)	0.011 (0.763)	0.006 (0.865)

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Table OA.6 - *Continued*

	Combined $CAR_{(-1,+1)}$			
	(1)	(2)	(3)	(4)
ln(Acquirer country GDP)	0.485*** ( $< 0.001$ )	0.475*** ( $< 0.001$ )	0.467*** ( $< 0.001$ )	0.478*** ( $< 0.001$ )
ln(Target country GDP)	0.014 (0.884)	-0.021 (0.840)	-0.032 (0.753)	0.001 (0.996)
ln(Acquirer openness)	0.319 (0.752)	0.036 (0.972)	0.281 (0.743)	0.467 (0.628)
ln(Target openness)	2.808** (0.032)	2.661** (0.046)	2.364* (0.072)	2.465* (0.060)
ln(Acquirer country GDP/capita)	-11.032** (0.031)	-10.589** (0.031)	-10.431** (0.029)	-10.799** (0.031)
ln(Target country GDP/capita)	1.215 (0.731)	0.512 (0.882)	0.379 (0.905)	0.886 (0.782)
ln( $1 +  \Delta \text{ Corporate tax rate} $ )	-0.036 (0.852)	-0.044 (0.827)	-0.055 (0.768)	-0.024 (0.908)
Same religion	-0.002 (0.866)	-0.010 (0.522)	-0.006 (0.631)	-0.003 (0.873)
Same language	0.008 (0.742)	0.005 (0.834)	-0.001 (0.975)	0.003 (0.907)
ln(Geographic distance)	-0.015 (0.281)	-0.010 (0.476)	-0.010 (0.466)	-0.015 (0.269)
Share border	0.013 (0.212)	0.006 (0.525)	0.004 (0.671)	0.009 (0.382)
Exchange rate volatility	-79.869 (0.106)	-71.176 (0.155)	-84.356* (0.061)	-90.294* (0.053)
Exchange rate growth	2.459 (0.661)	2.753 (0.615)	3.406 (0.554)	2.854 (0.603)
Same legal system	-0.015 (0.414)	-0.001 (0.948)	0.005 (0.805)	-0.007 (0.725)
ln(Imports from acq. nation)	-0.002** (0.049)	-0.002** (0.046)	-0.002** (0.047)	-0.002** (0.043)
Private mergers	0.010 (0.588)	0.006 (0.763)	0.006 (0.748)	0.010 (0.583)
Public mergers	-0.006 (0.651)	-0.005 (0.722)	-0.006 (0.669)	-0.006 (0.634)
Heckman's lambda	0.026 (0.588)	0.006 (0.893)	0.007 (0.873)	0.025 (0.604)
Acquirer country fixed effects	Yes	Yes	Yes	Yes
Target country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adjusted $R^2$	0.141	0.133	0.140	0.141
Observations	405	405	405	405

**Table OA.7**

Cultural distance and combined abnormal returns using alternative selection models.

Dependent variable is the combined abnormal announcement return of the target and acquirer over  $(-1, +1)$  days, weighted by market values. OLS estimates are presented where only cross-border deals are included in columns (1)–(4) and columns (5)–(8) include up to two matched domestic deals based on acquirer and target country-industry-size-year for each cross-border deal. First-stage selection models are characterized by ‘Full sample’, indicating that the entire country-pair sample was used in the first stage logit tests of the likelihood of any cross-border merger activity or ‘Rare events,’ which indicates that the first-stage likelihood sample was restricted to include all positive outcomes and an equal number of zero outcomes by randomly dropping zero outcomes, and the coefficients adjusted according to King and Zeng (2001); ‘Lee’ refers to the selection bias correction method of Lee (1983) and ‘DMF’ refers to the selection bias correction of Dubin and MacFadden (1984).  $|\Delta|$  indicates absolute difference between acquirer and target nation variables. ‘Heckman’s lambda’ is a self-selection variable. ‘Controls’ indicates all the variables in Table 5. All variables defined in the appendix. A constant is included in each specification but not reported in the table. Significance at 10%, 5%, and 1%, indicated by \*, \*\*, and \*\*\* with  $p$ -values double-clustered at the acquirer and target country levels in parentheses.

	Combined $CAR_{(-1,+1)}$							
	Cross-border only				Cross-border and matched domestic			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\ln(1 +  \Delta \text{ Trust} )$	−0.052* (0.063)	−0.049* (0.096)	−0.054* (0.065)	−0.044 (0.176)	−0.046* (0.080)	−0.045* (0.089)	−0.046* (0.099)	−0.043 (0.109)
$\ln(1 +  \Delta \text{ Hierarchy} )$	0.024 (0.784)	0.021 (0.808)	0.024 (0.785)	0.018 (0.832)	−0.040*** ( $< 0.001$ )	−0.042*** ( $< 0.001$ )	−0.039*** ( $< 0.001$ )	−0.041** (0.024)
$\ln(1 +  \Delta \text{ Individualism} )$	−0.066* (0.092)	−0.066* (0.100)	−0.066* (0.093)	−0.069 (0.115)	−0.043 (0.470)	−0.042 (0.483)	−0.044 (0.454)	−0.047 (0.453)
Full sample Lee lambda	−0.007 (0.673)				0.009 (0.417)			
Full sample DMF lambda		0.000 (0.964)				0.006 (0.297)		
Rare events Lee lambda			−0.008 (0.623)				0.007 (0.506)	
Rare Events DMF lambda				0.004 (0.785)				0.011 (0.250)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Acquirer country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Target country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted $R^2$	0.157	0.156	0.157	0.157	0.156	0.156	0.156	0.156
Observations	827	827	827	827	2,063	2,063	2,063	2,063

**Table OA.8**

Cultural differences and long-run returns.

The dependent variable is the three year buy-and-hold abnormal returns of the acquirer using monthly return data where the benchmark is based on terciles of market equity, book-to-market ratio, and momentum from all stocks in the acquirer's home country (columns (1) and (3)), or all stocks in the Compustat Global database (columns (2) and (4)), excluding the acquirer. Columns (1) and (2) include all mergers; Columns (3) and (4) include only an acquirer's first merger in each three-year window to avoid overlapping returns. OLS estimates are presented.  $|\Delta|$  indicates absolute difference between acquirer and target nation variables. All variables defined in the appendix. A constant is included in each specification but not reported in the table. Significance at 10%, 5%, and 1%, indicated by \*, \*\*, and \*\*\* with  $p$ -values clustered at the acquirer country level in parentheses.

	Three-Year Buy-and-Hold Abnormal Return			
	(1)	(2)	(3)	(4)
$\ln(1 +  \Delta \text{ Trust} )$	-0.449 (0.204)	-0.010 (0.980)	0.231 (0.677)	0.621 (0.222)
$\ln(1 +  \Delta \text{ Hierarchy} )$	-0.838 (0.265)	-0.412 (0.485)	-1.493** (0.046)	-0.987 (0.114)
$\ln(1 +  \Delta \text{ Individualism} )$	0.779 (0.322)	0.534 (0.385)	1.478 (0.168)	0.734 (0.342)
Transaction value	-0.188 (0.925)	0.738 (0.667)	-0.793 (0.888)	-9.011 (0.293)
Relative size	0.010 (0.407)	0.015 (0.125)	0.022 (0.366)	0.030** (0.045)
Acquirer market value	-2.617* (0.058)	-2.540*** ( $< 0.001$ )	-1.315 (0.358)	-1.848* (0.085)
Majority cash	0.058 (0.650)	0.057 (0.552)	0.061 (0.688)	0.059 (0.646)
Tender offer	0.044 (0.625)	-0.027 (0.730)	0.077 (0.498)	-0.028 (0.776)
Friendly offer	0.010 (0.838)	0.024 (0.793)	0.028 (0.699)	0.123 (0.316)
Same industry	-0.016 (0.650)	0.045 (0.378)	-0.026 (0.371)	0.064 (0.245)
Acquirer termination fee	0.021 (0.882)	-0.057 (0.670)	-0.077 (0.661)	-0.084 (0.617)
Target termination fee	-0.116 (0.180)	-0.020 (0.838)	-0.089 (0.173)	-0.022 (0.843)
Target defense	0.028 (0.797)	0.069 (0.690)	0.080 (0.580)	0.159 (0.383)
Acquirer past return	-0.126*** (0.001)	-0.149*** (0.007)	-0.126** (0.010)	-0.147** (0.042)
Acquirer past volatility	-0.693 (0.840)	-6.992*** (0.010)	0.778 (0.849)	-6.544** (0.029)
Target past return	0.061** (0.046)	0.033 (0.172)	0.055* (0.062)	0.029 (0.295)

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Table OA.8 - *Continued*

	Three-Year Buy-and-Hold Abnormal Return			
	(1)	(2)	(3)	(4)
Target past volatility	0.007 (0.997)	-0.667 (0.662)	-0.067 (0.979)	-0.814 (0.685)
ln(Acquirer country GDP)	-0.658 (0.537)	-2.037 (0.145)	-0.249 (0.851)	-0.918 (0.545)
ln(Target country GDP)	0.020 (0.663)	0.004 (0.926)	-0.020 (0.715)	-0.030 (0.517)
ln(Acquirer openness)	1.017 (0.417)	0.897 (0.354)	0.490 (0.756)	0.665 (0.588)
ln(Target openness)	-10.068 (0.229)	-1.277 (0.861)	-1.232 (0.890)	4.687 (0.560)
ln(Acquirer country GDP/capita)	-19.468 (0.604)	35.185 (0.371)	-0.444 (0.993)	25.402 (0.609)
ln(Target country GDP/capita)	1.686 (0.792)	0.328 (0.947)	3.123 (0.639)	2.586 (0.568)
ln(1 +   $\Delta$ Corporate tax rate  )	-0.072 (0.919)	-0.874 (0.181)	-0.065 (0.964)	-0.948 (0.413)
Same religion	0.098 (0.105)	0.077 (0.170)	0.038 (0.449)	0.010 (0.879)
Same language	0.053 (0.531)	0.103 (0.188)	0.082 (0.400)	0.184* (0.068)
ln(Geographic distance)	0.069 (0.200)	0.045 (0.320)	0.119 (0.127)	0.079 (0.185)
Share border	0.088 (0.163)	0.069 (0.375)	0.086 (0.528)	-0.010 (0.935)
Exchange rate volatility	817.764** (0.040)	620.192** (0.037)	910.655* (0.062)	655.803* (0.072)
Exchange rate growth	-11.043 (0.722)	-19.833 (0.481)	4.263 (0.920)	-8.698 (0.839)
Same legal system	-0.132 (0.552)	0.066 (0.734)	-0.054 (0.799)	0.139 (0.531)
ln(Imports from acq. nation)	-0.003 (0.399)	-0.008 (0.227)	-0.001 (0.714)	-0.011 (0.180)
Private mergers	0.072 (0.591)	0.055 (0.546)	0.160 (0.409)	0.120 (0.250)
Public mergers	0.028 (0.817)	-0.022 (0.801)	-0.007 (0.960)	-0.067 (0.582)
Acquirer country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Adjusted $R^2$	0.063	0.131	0.034	0.121
Observations	530	669	404	499