LOST IN TRANSLATION? THE EFFECT OF CULTURAL VALUES ON MERGERS AROUND THE WORLD

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Abstract

We find strong evidence that three key dimensions of national culture (trust, hierarchy, and individualism) affect merger volume, synergy gains, deal structure, and the division of gains between bidders and targets in cross-border mergers. First, the volume and gains of cross-border mergers are lower when countries are more culturally distant. Second, firms from countries that are more trusting and hierarchical capture a larger share of combined merger gains. Finally, the use of termination fees, tender offers, and the form of payment vary systematically by cultural differences. The results are the first large-scale evidence that cultural differences have substantial impacts on multiple aspects of cross-border mergers.

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Abstract

We find strong evidence that three key dimensions of national culture (trust, hierarchy, and individualism) affect merger volume, synergy gains, deal structure, and the division of gains between bidders and targets in cross-border mergers. First, the volume and gains of cross-border mergers are lower when countries are more culturally distant. Second, firms from countries that are more trusting and hierarchical capture a larger share of combined merger gains. Finally, the use of termination fees, tender offers, and the form of payment vary systematically by cultural differences. The results are the first large-scale evidence that cultural differences have substantial impacts on multiple aspects of cross-border mergers.

1. Introduction

Though the vast majority of research on mergers and acquisitions focuses on the U.S. domestic market, recent research documents that international mergers differ in systematic ways from U.S. mergers. Rossi and Volpin (2004) show that countries with less transparent accounting standards and weaker shareholder-rights laws have less active domestic merger markets. Similarly, national legal systems affect acquirer gains and target premiums in cross-border mergers (Moeller and Schlingemann, 2005; Bris and Cabolis, 2008; Chari, Ouimet, and Tesar, 2010). Recent research also shows that cross-border mergers are facilitated by institutional investors (Ferreira, Massa, and Matos, 2010), but inhibited by protectionist governments (Dinç and Erel, 2010). Understanding how international forces affect mergers has become especially important recently — the number of cross-border mergers has almost doubled in the last decade, from 23 percent of total mergers in 1998 to 45 percent in 2007 (Erel, Liao, and Weisbach, 2009).

In contrast to prior studies' focus on legal institutions, in this paper we investigate how a completely different force affects cross-border mergers: national cultural values. Though anecdotal evidence of culture clash in cross-border mergers is widespread (e.g. Daimler-Chrysler) and it is well known that culture affects economic decision-making (Guiso, Sapienza, and Zingales, 2006), there is relatively little research on the role of culture for mergers. Using a comprehensive sample of cross-border mergers, we provide some of the first large-scale evidence to show that national cultural differences have substantial impacts on multiple aspects of mergers.

First, like geographic distance, we suggest that greater cultural distance between merging firms reduces the likelihood of a successful merger. Synergy gains in mergers require post-merger coordination between the employees of each firm. If employees do not share similar cultural values, impediments such as mistrust, misunderstanding, or mismatched goals may reduce coordination. For instance, it is more acceptable to question authority in some cultures than it is in others. Likewise, in some cultures, teamwork is valued above individual aspirations, whereas in other cultures, it is the opposite. Cultural differences such as these may make post-merger coordination more difficult and hence, the realization of synergies less likely.

To test our first hypothesis, we apply a 'gravity' model of international trade to mergers. A gravity model, such as in Frankel and Romer (1999), uses geographic distance to predict

the intensity of cross-country relations. We follow this approach but we measure distance in cultural space, rather than geographic space. Specifically, we measure cultural distance along the three dimensions most commonly identified in sociology and economics: 1. Trust versus Distrust (whether people believe that others can be trusted); 2. Hierarchy versus Egalitarianism (whether people believe they should follow the rules dictated by higher authorities); and 3. Individualism versus Collectivism (whether people believe they should sacrifice personal gains for the greater good of all). Using these dimensions of culture, in a large sample of mergers from 52 countries between 1991 and 2008, we find strong evidence that differences in national culture reduce the volume of cross-border mergers as well as the total value they create.

In particular, we find that the greater is the distance between two countries along each of the three cultural dimensions, the smaller is the volume of cross-border mergers between the countries. The size of the effect is substantial. Two countries that are at the 75th percentile of cultural distance experience about half as many mergers as two countries at the 25th percentile. Greater cultural distance also leads to lower synergy gains, as proxied by the combined announcement returns of the acquirers and targets. We find that a change from the 25th to the 75th percentile in trust or individualism leads to a reduction in combined gains of about 25 to 30 percent of the median combined announcement return. For average sized firms, the expected loss is above $50 million. Thus cultural differences impose substantial costs on the total gains created through cross-border mergers.

Consistent with prior studies, other national characteristics, besides culture, influence cross-border mergers. For instance, the legal origin of a country, or the quality of its institutions are related to where mergers occur and the value they create. In addition, other sociological variables, such as religion and language affect mergers. To control for these effects, in all of our tests we include both acquirer and target country fixed effects, year effects, time-varying country-level characteristics, and country-pair characteristics, such as shared legal systems, religion, language, tax and investment treaties, and currency exchange ratios. Thus, we isolate the effect of differences in national culture from country-level characteristics.

However, we recognize that some national legal institutions are likely to be inter-related with culture. To precisely identify the role of culture in these settings requires an exogenous

shock to national culture, independent of national institutions. Such an event is highly unlikely. Moreover, if one could identify such an exogenous change in national culture, it is unlikely that the results would generalize to the majority of global cross-border mergers. For these reasons, we choose to take as general approach as possible, and to control for alternative explanations using instrumental variables. In particular, to control for endogeneity and reverse causality, we instrument for national cultural differences using genetic and somatic differences across countries and find the same results as before. Thus, our findings are consistent with new research in other settings that shows that culture is a stronger determinant of institutions than vice versa (Licht, Goldschmidt, and Schwartz, 2007; Tabellini, 2008; Gorodnichenko and Roland, 2010).

We next take our investigation one step further and examine the impact of differences in national culture on the division of merger gains, rather than the total gains. We offer a number of reasons why culture may affect the division of gains. First, a cynical view is that being trustful will lead to a smaller share of the gains if a trading partner can take advantage of one's trust. In contrast, trust may engender reciprocity, where a trading partner may reward trust by sharing more of the gains (Berg, Dickhaut, and McCabe (1995) presents experimental evidence consistent with this hypothesis). Second, firms that are more individualistic may capture more gains than firms that are more collectivist, since collectivist firms are more willing to sacrifice individual benefits to maximize combined gains. Third, egalitarian firms may wish to share the gains equally, whereas hierarchical firms believe that one firm should capture most of the gains. We do not claim to present an exhaustive list of explanations. Instead, we emphasize that empirical evidence that is consistent with any possible explanation would be important, since it would be the first evidence that cultural differences affect bargaining outcomes in mergers.

We find strong evidence that cultural differences do, in fact, have a strong impact on the division of merger gains. Following Ahern (2009), we define an acquirer's gain relative to the target as the difference of dollar abnormal returns between the acquirer and target, normalized by the sum of the firms' market equity. We find that an acquirer's gain relative to the target's gain is larger when the acquirer is from a country with a higher level of trust relative to the target. A change from the 25th to the 75th percentile of the difference in trustfulness leads

to an acquirer capturing an additional 1.7 percentage points of combined acquirer and target pre-merger market value. This is a substantial amount, compared to the median of −1.9. In dollar terms, this additional gain is about $41 million for median sized acquirers and targets. This result is consistent with the experimental finding that greater trust leads to a larger share of the gains. Second, an acquirer from a country with a high level of hierarchy, relative to the target, captures more of the gains of the merger than if the acquirer was from a country with a high level of egalitarianism. The economic magnitude of this effect is comparable to the effect of trust on the division of gains.

Since national culture affects bargaining outcomes, it is likely that it also affects deal structure in cross-border mergers. In the last part of the paper we explore this hypothesis for three aspects of the structure of a merger: 1) form of payment, 2) the use of target termination fees, and 3) whether the deal is structured as a tender offer. In fixed effects logit regressions, we find that:

- Mergers are more likely paid in cash, rather than stock, when the target is less trusting and more hierarchical. Our intuition is that a target firm that has less trust in others will avoid the uncertainty of acquirer stock as payment, but egalitarian targets are more willing to share the risks of the acquirer by accepting stock as a payment.
- Targets are more likely to have termination fees when they are more hierarchical. This possibly reflects that informal relations may substitute for formal contracts in egalitarian countries.
- When acquirers are more egalitarian than targets, they are more likely to negotiate with management, rather than make a tender offer. Again, this may reflect that in egalitarian countries, informal negotiations are preferred to formal offers.

We provide a number of robustness checks on our main results. In particular, in our main specifications, we use cultural value measures from the World Value Survey, a standard data source in the literature. However, we also find similar results if we use the alternative measures of cultural values developed in Hofstede (1980, 2001) or in Schwartz (1994). Second, since U.S. firms account for a large number of mergers, we exclude all U.S. firms from our sample in robustness tests. Our qualitative results are unchanged and in most cases strengthened. Finally, one may argue that our results are driven by cultural differences in investor responses,

rather than real merger effects. We address this criticism in two ways. First, we document that national culture affects the actual incidence of mergers as well as observed deal structures, not only the market responses to merger announcements. Second, we investigate the effects of national culture on long-run stock market returns. We do not find any evidence that changes our prior conclusions.

To the best of our knowledge, this is the first comprehensive study of the effect of national culture on merger outcomes. The richness of data on mergers allows us to study culture's influence on the gains from trade, the division of gains between the firms, and the structure of the deal, rather than the volume of cross-border trade alone. Our paper contributes to a growing field of research that considers the role of culture in economics. Barr et al. (2009), Oosterbeek, Sloof, and Van de Kuilen (2004), Brett et al. (1998), and Adair et al. (2004) run experiments using participants from many different cultures and find evidence that deep-seated values of fairness, trust, and individualism affect fundamental economic decisions. Evidence from non-experimental settings also confirms the importance of culture on economic decision-making: real and financial cross-border investment flows are larger when countries have greater bilateral trust (Guiso, Sapienza, and Zingales, 2009a), stock price momentum is greater in countries where individualism is higher (Chui, Titman, and Wei, 2009), countries where people are more trusting have greater stock market participation (Guiso, Sapienza, and Zingales, 2009b), national culture is related to firm risk-taking (Griffin, Li, Yue, and Zhao, 2009), growth and innovation are higher in more individualistic cultures (Gorodnichenko and Roland, 2010), and interest rates are lower when borrowers and lenders share common cultural values (Giannetti and Yafeh, 2009).

The rest of this paper is organized as follows. Section 2 describes the three dimensions of cultural values studied in this paper and develops empirical predictions. Section 3 describes the data used in this paper and documents the prevalence of international mergers. In Section 4, we present empirical tests of the effect of culture on merger volumes and combined returns. Section 5 presents empirical results on the division of merger gains and deal structures. Robustness checks are presented in Section 6. Section 7 presents concluding remarks.

2. Theory and Hypotheses

Following Guiso, Sapienza, and Zingales (2006), we define culture as, "those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation." As Guiso et al. argue, focusing on beliefs and values allows this idea of culture to easily fit into the classical economic framework that is based on individual preferences. In fact, much of the recent work in theoretical behavioral economics introduces non-standard preferences into an agent's utility function. For instance, preferences for fairness can affect an individual's choice of occupation and wage contracts (Bartling, Fehr, Maréchal, and Schunk, 2009; Fehr, Goette, and Zehnder, 2009), as can preferences for social esteem (Ellingsen and Johannesson, 2007, 2008). Honesty and intrinsic motivation, rather than extrinsic motivation, may affect an individual's economic choices (Frey, 1997). Thus, national cultural values are likely to affect the economic preferences of individuals in significant ways. As these values vary across countries, people's economic motivations likely differ as well.

We are careful to differentiate our notion of national culture from corporate culture. Weber, Shenkar, and Raveh (1996) present evidence that national culture is defined by deep-held values, whereas corporate culture is defined by a set of operational practices. Using survey responses from CEOs, they find that national cultural differences predict stress, negative attitudes towards the merger, and lack of cooperation better than do corporate cultural differences. Weber et al. argue that differences in national culture will impose a greater impediment to realizing synergy gains in mergers than will corporate culture, because operating practices are less rigid than are cultural values.

Following this, we expect that differences in national cultural values will reduce the surplus created in mergers. To realize synergy gains in a merger, the combined firm must be able to lower costs or increase revenue. Lowering costs typically involves firing workers or greater coordination between firms, whereas revenue synergies are generated by the fusion of knowledge capital. In either case, the employees of the two firms must work together. We argue that their ability to work together will be inhibited if the employees of the merging firms do not share common cultural values.

Since not all beliefs and values would be expected to affect economic decisions, we focus on three values that prior studies in economics, psychology, sociology, and negotiation have identified as important dimensions of culture: trust, hierarchy, and individualism. First, trust has been studied extensively in finance and economics in various contexts (see Guiso, Sapienza, and Zingales (2006) for references). Second, though the particular dimensions used in cultural classification systems tend to be idiosyncratic, both hierarchy and individualism are shared by the most widely cited classifications, with only minor variations. In particular, hierarchy and individualism are the only two dimensions common to the five-dimension classification system of Hofstede (1980, 2001), the three-dimension system of Schwartz (1994), the seven-dimension system of Trompenaars (1993), and the four-dimension system of Fiske (1991). Thus, there is a large literature that suggests that these three dimensions are essential characteristics in the description of a country's cultural values. In the following section, we describe these dimensions of national culture in detail.

2.1. Trust versus Distrust

Trust is the dependence on another to fulfill an implicit or explicit obligation. As far back as Arrow (1972), economics scholars have recognized that trust facilitates trade.[1] In economic transactions characterized by uncertainty, trust is the confidence that a counter-party will fulfill her side of the deal. In addition, trust may substitute or complement legal statutes that govern transactions. This is particularly relevant for cross-border mergers where accurate valuations are unlikely and where post-merger integration will require non-contractible effort by both firms.

If trust facilitates trade, one can argue that trust makes mergers either more or less common. One argument is that cultures that have greater amounts of trust in others will be more likely to buy and sell firms through mergers. The total gains from mergers are also expected to be higher when there is more trust because it may facilitate post-merger cooperation. A counter-argument is that mergers are likely to be observed when arms-length trading relations break down. The theories of transaction cost economics (Williamson, 1975, 1979, 1985) and the property rights theory of the firm (Grossman and Hart, 1986; Hart and Moore, 1990; Hart,

[1]See Carlin, Dorobantu, and Viswanathan (2009) for a recent theoretical model that incorporates trust.

1995) predict that if the costs of incomplete contracts are too high, assets will be organized under common ownership to reduce hold-up and underinvestment problems. Thus if trust facilitates arms-length contracting rather than mergers, we may observe *fewer* mergers that involve firms in countries where people are more trusting of others.

2.2. Hierarchy versus Egalitarianism

Egalitarian cultures rank the importance and social power of all members relatively equally, whereas hierarchical cultures delineate members into multiple vertical ranks of power. In hierarchical cultures, members from lower ranks defer to higher ranked members, who in turn have an obligation to ensure that the needs of lower ranked members are satisfied. When two equally ranked members disagree, they allow a higher ranked member to arbitrate. In a firm, this means that workers are more likely to follow instructions from superiors in hierarchical cultures. Workers in egalitarian cultures, in contrast, are more likely to think of themselves as equals with their superiors (Brett and Okumura, 1998).

We expect that differences in hierarchy will reduce the total volume of mergers, as well as the combined gains from mergers, since cultural differences are likely to impede post-merger integration. In particular, as suggested before, differences in the norms of dialogue between workers and their superiors are likely to reduce effective cooperation between firms. Hierarchical bosses may not understand that egalitarian workers are unlikely to follow their orders without justification. Likewise, egalitarian bosses may not be respected by hierarchical workers if the boss treats workers as her equal. These examples are merely to illustrate the mechanism through which cultural values may inhibit coordination; other forms of inter-personal frictions are possible. We simply argue that cultural differences create frictions when firms attempt to merge their operations.

2.3. Individualism versus Collectivism

A society may view individuals as autonomous or as members of a larger social group. In societies where individualism is the norm, individual-level accomplishments are rewarded and goals are independent of the overall society's goals. It is accepted and expected that agents

will seek to maximize their self-interest, without regard to the well-being of society-at-large. In contrast, collectivist cultures emphasize group goals, and the aspirations of individuals are tied to social obligations. It is expected that individuals will sacrifice personal self-interest for the benefit of the group (Brett and Okumura, 1998; Brett, 2000). As with other cultural values, there is little theoretical research in economics that tries to understand the role of individualism, though recent exceptions are Tabellini (2008) and Gorodnichenko and Roland (2010).

As before, we expect that differences in individualism will impede the firms from realizing synergy gains. Collectivist employees may not wish to work with individualistic employees, because they do not share the same goals. Likewise, individualist employees may not understand the goals of collectivist employees. For these and other reasons, it is plausible that combining individualist with collectivist employees may inhibit the operations of the firm more than combining employees who share the same cultural values. In general, we suggest that cultural differences will make post-merger coordination more difficult and thus reduce the number of cross-cultural mergers, as well as their total observed synergy gains.

3. Data Sources

3.1. Merger Data

For our tests of cross-border merger activity, we start with as large a sample of mergers as possible, which due to constraints on other variables will be reduced in subsequent tests. Our initial sample includes all completed mergers from SDC Platinum database valued at $1 million or more from 1985 through 2008 where more than 50% of the target is acquired. We exclude any deal with firms that SDC records as multinational or of unknown location. We place no restrictions on the public status of the acquirer or target, which means we include public, private, and subsidiary acquirers and targets, though government entities are excluded. Since private firms account for the majority of merger targets, this sampling procedure provides a much more complete sample than is typically used in merger studies. For each deal we record the form of payment, the industry classifications of the acquirer and target, the attitude of the deal (friendly/hostile), and other deal-specific information from SDC.

The data filter yields a sample of 127,950 mergers, of which 30,907 are cross border deals, and 65,796 do not include a U.S. acquirer or target. A detailed cross-country matrix of the thirty nations with the most firms that are acquired is presented in Table 1. The top five target nations (including domestic deals) are the U.S. (55,407 targets), the U.K. (21,689), Canada (6,752), Australia (6,128), and Japan (3,513). The U.S. is the leader by far and there is a sharp dropoff in merger activity for the next most active market. Sweden, the tenth largest nation by targets had 1,688 deals over 1985 to 2008, which is less than half as many as Japan, the fifth largest, and only three percent of the U.S.'s total.

Figure 1 presents a map of worldwide merger activity for the 20 largest domestic markets to illustrate the complexity of international merger relations. The size of each country's abbreviation is proportional to the number of domestic mergers and the size of the arrows connecting countries is proportional to their cross-border merger activity over 1985 to 2008. The visualization is taken directly from the data, with the exception of the U.S., which is scaled by half and is still the largest domestic market. This picture reveals a complex network of cross-border merger flows where trading partners are clearly not random. For instance, both the U.S. and Canada, and the U.S. and the U.K., have strong cross-border merger ties, but Canada and the U.K. have relatively few cross-border deals. In addition, some of the largest domestic markets have few cross-border mergers. Japan is the most notable example, but Australia, and Malaysia are similarly isolated. The last row in Table 1 reports the percentage of foreign-made acquisitions in each of the thirty top nations. Less than six percent of acquisitions of Japanese companies are made by non-Japanese firms, compared to 24 percent for the entire world. In contrast, over two-thirds of acquisitions are made by foreign acquirers in Germany, the seventh largest target nation. Clearly, cross-border mergers are not randomly assigned across country-pairs.

Figure 2 shows cross-border mergers have increased substantially since the 1990s and that firms are buying targets in many more foreign countries. All five of the top target nations in cross-border mergers (U.S., U.K., Canada, Germany, and France) have witnessed increased numbers of acquisitions, but by far the most striking pattern is the number of cross-border mergers where targets are in countries that are not in the top five most active markets. In fact, the number of cross-border mergers at the peak of the 2000s wave was larger than the

number of cross-border mergers in the 1990s wave, mainly due to acquisitions outside the top five target nations. Both of these figures provide strong evidence that research must account for cross-border and foreign-based acquisitions if it is to be relevant in today's M&A environment.

Due to data restrictions on our other variables (described below), our original sample of 30,907 cross-border mergers is reduced to 27,753 cross-border mergers across 52 different countries. These 27,753 mergers form the sample we use to test the role of culture on the volume of cross-border merger activity.

In order to measure the role of culture on value creation in mergers, we are forced to use mergers where both acquirers and targets are publicly traded firms with available stock price data. We take stock price data from Compustat Global Security Issue database and CRSP for U.S. companies. For each deal we compute the acquirer's and target's abnormal returns in the three days surrounding the announcement of the merger. Abnormal returns are calculated by subtracting the Datastream country index of the firm's host country from the firm's daily return. We take the sum over three days to generate a cumulative abnormal return (CAR). We use these CARs to create our variable of interest, the combined CAR, which is simply the average of the acquirer's and target's CAR, weighted by each firm's market value two days before the announcement. We omit the deals with announcement returns above the 99th and below the 1st percentile to remove outliers. We also exclude mergers where the transaction size is less than one percent of the market value of the acquirer. These restrictions limit the size of this subsample, though the scope is still relatively large. This subsample includes 827 cross-border mergers where acquirers are from 35 different countries and targets from 38 countries.

3.2. Empirical Measures of Cultural Values

To measure national cultural values we use the World Value Survey (WVS). The WVS is the largest study ever conducted on cultural values and covers 97 societies on six continents and samples from populations that represent more than 88 percent of the total world population. The survey is carried out in five waves of surveys in 1981–1984, 1989–1993, 1994–1998, 1999–2004, and 2005–2008. Sample respondents are randomly chosen to be representative across age, sex, occupation, and geographic region. The set of questions in each wave of the WVS

is not stable over time. In order to have consistency, we start our study using the 1989–1993 wave because the survey questions we use to measure culture are in all of the following survey wave questionnaires. Though surveys are completed in waves, we know the exact year of each country's survey. Therefore, we match the most recent country-level and deal-level merger data to each survey year that includes all three questions we use to measure national cultural values (described below). Following this, for the rest of our study, our data covers the years 1991 to 2008.

Each survey consists of about 250 questions on a variety of topics. We focus on the questions that are most relevant for our dimensions of national culture.

1. **Trust versus Distrust**:

   To measure trust, we use the question from the WVS which is as follows:

   > *Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?*

   This measure has been used extensively in prior research to measure trust (e.g, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997), Sapienza, Toldra, and Zingales (2007), and Guiso, Sapienza, and Zingales (2009b)).

2. **Hierarchy versus Egalitarianism**:

   To measure national attitudes toward hierarchy versus egalitarianism we use the following question from the WVS:

   > *People have different ideas about following instructions at work. Some say that one should follow one's superior's instructions even when one does not fully agree with them. Other's say that one should follow one's superior's instructions only when one is convinced that they are right. With which of these two opinions do you agree?*
   >
   > 1. *Should follow instructions*
   > 2. *Must be convinced first*

   Those countries where people are more likely to follow instructions without question, are considered hierarchical. In egalitarian cultures, people look upon others as equals and so are more likely to require a satisfactory explanation before following orders (Au and Cheung, 2004)

3. **Individualism versus Collectivism**:

To measure individualism we use the following question from the WVS:

> *How would you place your views on this scale? 1 means you completely agree with the statement on the left; 10 means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between.*
>
> | | |
> |---|---|
> | *Incomes should be made more equal* | *We need larger income differences as incentives for individual effort* |

Countries that are more individualistic place greater weight on individual effort than on ensuring everyone's benefit. This variables has also been used in prior research, including Guiso, Sapienza, and Zingales (2003) and Gabaix and Landier (2008).

We rescale the responses to each of the three questions to create measures that are bounded between zero and one and take the average response for each of the 97 countries in the sample.

Figure 3 presents a scatter-plot of the 2001 country-level measures of the three cultural values we study. The relationship of values represented in Figure 3 reveals a number of interesting patterns. First, the three measures are not correlated. The correlation between trust and hierarchy has a $p-$value of 0.157, between trust and individualism the $p-$ value is 0.703, and $p-$value for hierarchy and individualism is 0.253. Thus, each measure of cultural values is measuring something unique. Second, countries cluster together in predictable ways. Great Britain, Australia, New Zealand, Ireland, and South Africa form a tight cluster of countries that are slightly higher than the median in hierarchy and slightly below median in individualism, though with some variation in trust. Other clusters include Mexico, Spain, and Argentina; Guatemala and El Salvador; and Bosnia and Herzegovina, Bulgaria, Italy, and Albania.

Finally, we note that the U.S. is substantially separated from other countries on the hierarchy versus egalitarianism scale. The U.S. scores the highest of all nations on our hierarchical measure, indicating that people in the U.S. are most likely to follow instructions without the need to be convinced. This reinforces our claim that understanding U.S. merger markets may not be enough to understand world merger markets. In a later section of the paper, we show that our results are robust if we exclude U.S. firms from our analysis.

Implicit in our definition of culture is that national culture is defined by the values held by individuals in a country. Since firms are the unit of analysis in this study, we must assume that individual-level values affect firm-level outcomes. This means that if managers or employees of

firms do not share the cultural values of the country where the firm is headquartered, then our individual-level values will be poor proxies for firm-level values. We verify that this is not the case.

Using data from Management Diagnostics Ltd.'s Boardex database, in a sample of S&P 1500 companies headquartered in the United States over 2000 to 2009, we find that 97.7% of all CEOs are U.S. nationals. The remaining percentage of CEOs are spread across 22 different nationalities, where the next largest nationality is British, with 0.4% of all CEOs. For board members of these firms, 95.8% are Americans, with the remainder comprised of 48 different nationalities. The large majority of European CEOs are also nationals of their company's country of residence. For example, in the Boardex dataset, 90% of CEOs in Germany are German, 85% of CEOs in France are French, and 91% of CEOs in Italy are Italian. Though we don't have data on laborer nationality, it is reasonable to assume that they are most likely citizens of the country where their employer is headquartered. Therefore, we feel confident that country-level cultural values will be appropriate proxies for the cultural values held by the employees of a firm. Moreover, if our sample firms are multinational, we could misidentify domestic mergers as cross-border and vice versa. This will simply bias our tests against finding significant results. For brevity, throughout the paper we may refer to a 'firm's values' to indicate the values of the people in the country where the firm is headquartered.

3.3. Other National Institutions that Affect Mergers

As stated in the introduction, other institutional environments have been shown to affect cross-border merger activity. Since these institutions are likely correlated with national cultural values we control for them in our tests.

From La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998), we record a nation's legal origin as French, German, or Scandinavian Civil Law or English Common Law. La Porta et al. (1998) shows that common law countries typically have stronger legal protection for investors. We control for a country's size and individual wealth using GDP and GDP per capita from the Penn World Tables. We record the average corporate tax rate for each country, using data from the Economic Freedom Index. GDP per capita and tax rates may both proxy for the financial

development of a country. Froot and Stein (1991) present a model and empirical evidence to show that currency exchange rates help explain cross-border investment patterns. Therefore, we record the historical exchange rate growth and volatility between each country-pair over the 12 months prior to the merger. Next, we record if two countries have signed a double-taxation treaty or a bilateral investment treaty at the time of the merger announcement. Data is from the United Nations Conference on Trade and Development. Barthel, Busse, and Neumayer (2009) show that FDI flows are larger between countries when they have signed a double-taxation treaty. See also Huizinga and Voget (2009) for the role of double-taxation treaties in cross-border mergers. Bilateral investment treaties provide assurances against nationalization of private enterprise and provide a framework to resolve investor disputes. To record a country's level of foreign trade we calculate the ratio of imports and exports to GDP, which we call openness.

Religion and language are other cultural institutions that have been shown to affect economic outcomes (Barro and McCleary, 2003; Guiso, Sapienza, and Zingales, 2003). Following Stulz and Williamson (2003), for each country we record its primary spoken language and religion using data from the CIA World Factbook 2008.

Last, since geographic distance is likely related to the costs of cross-border mergers and also to differences in culture, we control for geographic distance in two ways. First, we measure the shortest distance between each country's most important city (in terms of population) or its capital city, following the great circle formula. However, this would be a poor measure for the geographic closeness of many countries, such as the U.S. and Mexico. To address this type of geographical distance we also record a dummy variable if two countries share a common border. These data are from Centre D'Etudes Prospectives et D'Informations Internationales (CEPII) and are provided for 225 countries.

4. The Effect of Culture on the Volume and Gains of Mergers

In this section we present empirical evidence on the role of cultural values on wealth creation in cross-border mergers. We analyze this in two ways. First, we investigate how culture affects the volume of mergers across countries. Like any transaction, mergers are expected to create

value. This means that if mergers create more value on average, then we will observe greater merger volume. The advantage of this approach is that we are not restricted to mergers involving publicly traded firms. The disadvantage is that we cannot measure the magnitude of the effect of culture on firm values. Therefore, we also investigate the effect of culture on merger returns using the smaller sample of publicly traded firms.

4.1. The Gravity Model of the Volume and Gains in Mergers

Following a long tradition in international economics, we use a 'gravity' model to generate an empirical estimating equation. Similar to Portes and Rey (2005), we wish to estimate the following for countries i and j in year t:

$$\begin{aligned}\ln(\textit{M\&A Dollar Volume}_{ij,t}) = {} & \beta_1 \ln(\textit{Cultural Distance}_{ij}) \\ & + \beta_2 \ln(\textit{Geographic Distance}_{ij}) \\ & + \beta_3 \textit{Other country-pair variables} \\ & + \beta_4 \textit{Time-varying country-level variables} \\ & + \textit{Acquirer country dummies \& target country dummies} \\ & + \textit{Time dummies} + \textit{Constant} + \varepsilon_{ij,t} \qquad (1)\end{aligned}$$

M&A Dollar Volume$_{ij,t}$ is the aggregate dollar value of all mergers worth at least \$1 million where an acquirer is from country i and the target is from country j in year t.[2] *Cultural Distance* is the absolute difference between two countries for each of our three cultural values variables. We include both acquirer- and target-country fixed effects in all regressions. These dummy variables capture any country-level effects that do not vary over time, such as legal origin, religion, and language. In addition, the country dummies account for any directional differences between the acquirer's and the target's countries. For instance, any effect that occurs because the acquirer's country has stronger governance laws than does the target's

[2]For robustness, we also record variants on these measures that only count mergers if they are valued at \$10 million and \$100 million and we also record the number of mergers, rather than the dollar value of mergers. Our qualitative results are unchanged.

country is absorbed by our country dummies. Absolute differences, such as cultural distance and geographic distance, are not absorbed in these fixed effects.

We include year fixed effects to control for worldwide macro economic shocks, such as currency crises and changes in world market valuations. We also include time-varying country-level variables, such as GDP, GDP/Capita, and openness. We do not use country-pair dummies, since this would capture the cross-sectional effects of cultural differences between countries. Instead, we control for multiple country-pair variables such as geographic distance, shared language, religion, and institutions. We also double-cluster standard errors by the acquirer and target country to account for within-country time series correlation. Since our underlying model of mergers proposes that mergers occur when the combined net benefits of the acquirer and target are positive, when net benefits are negative, we will not observe any mergers. Therefore we estimate tobit regression models to account for the truncation of observed merger activity at zero. Thus, we account for all time-invariant country level effects, time effects, as well as a host of country-pair effects.

Table 2 presents summary statistics of the variables used in our analysis. Panel A presents country-level variables. The time-invariant country-level variables are absorbed by country fixed effects in our tests, but we present their summary statistics to reveal the wide diversity of countries in our sample. The average level of trust across all 783 country-year observations is 0.318, with a standard deviation of 0.159. The average levels of hierarchy and individualism are 0.477 and 0.528, both with standard deviations close to 0.11.

Roman Catholic is the primary religion in 52 percent of country-years, followed by Protestant at 17 percent and Islam and Orthodox religions which comprise about nine percent and four percent of the sample. The remaining fraction is made up of Buddhist, Church of Norway, Hindu, Shintoism, Taoism, and Zion Christian religions, not reported in the table. Across the sample countries, French Civil Law is the most common, followed by German Civil Law and English Common Law countries. Finally there is significant variation in GDP, GDP per capita, corporate tax rates, and openness over our sample countries.

Panel B of Table 2 presents summary statistics for country-pair variables. Across all country-pair-years, merger activity is very small. In fact the 75th percentile of country-pairs have no

mergers that meet our $1 million sample requirement. Clearly, cross-border mergers are not random, but instead highly focused within particular country-pairs as illustrated in Figure 1. The average absolute difference between countries across all country pairs is 0.154 for trust, larger than the difference for hierarchy and individualism, each with an average of about 0.11. A shared religion is found in 30.8 percent of country-pairs, shared borders in 4.5 percent, and shared language in 5.7 percent.

Panel C of Table 2 reports summary statistics of deal-level characteristics for the 827 mergers in the public subsample. Across all of the deals in our sample, we find that the average combined cumulative abnormal return is a positive 3.6 percent in the three-day window around the announcement. Comparing the summary statistics of the variables at the deal-level with the country-level further reveals that cross-border mergers are selected non-randomly from all country-pairs. For instance, the acquirer country and target country share the same religion in 42 percent of mergers, the same language in 28 percent of mergers, and the geographic distance between the countries is 2,981 kilometers at the deal-level. This compares to 31 percent, 6 percent, and 4,447 kilometers for all country-pairs in the sample. We discuss the effects of sample selection at the deal-level in more detail below.

4.2. Merger Volume Results

Table 3 presents tobit regression estimates of the effect of culture on the level of cross-border activity across the 27,753 directed country-pair-year observations. Columns (1)–(3) of Table 3 include the cultural values separately and column (4) includes all three, though each specification includes all the control variables. As predicted by the gravity model, cross-border mergers are more likely when countries are larger, share a common origin of their legal systems, a common religion, a common language, and are closer geographically.

Turning to the cultural variables, greater cross-country differences along the cultural dimensions of trust and individualism are significantly related to less cross-border merger activity, even after including a multitude of controls. The large number of dummy variables in the tobit regression may affect our estimates (Greene, 2004). Therefore, in column (5) we use an ordinary least squares (OLS) model to estimate the effect. In this model, greater distance in

cultural values across all three dimensions reduces the number of cross-border mergers. Lower coefficient values reflect the truncation at zero. In column (6), we impose even stricter controls by including acquirer-country-year and target-country-year fixed effects to control for any effect at the country-year level. Our results hold in this specification, with significant and negative coefficients on each of the three cultural distance measures.

These negative effects of cultural distance have large economic consequences. For a change from the 25th to the 75th percentile in the natural log of distance in trustfulness, the natural log of the dollar value of mergers across all country-pair years falls by 0.595. For the same change in the distance of individualism, merger activity falls by 0.472. These are large effects, given the average of the natural log of dollars in cross-border mergers is 1.02. They are also comparable to the extreme change in log merger activity between countries that share the same religion (1.0) or same legal system (1.2) versus countries that do not.

These results provide strong evidence that cultural differences have a substantial effect on the patterns of cross-border mergers. However, one may be concerned that reverse-causation leads countries to share cultural values following a large number of cross-border mergers. In addition, cultural values may proxy for omitted institutional features of a country. For instance, countries with a history of fair and orderly government may have more trusting and hierarchical values. Thus, differences in country-level institutions may jointly determine both cultural differences and merger volumes.

To address these issues, following Guiso, Sapienza, and Zingales (2009a), we use genetic and somatic differences to instrument for cultural differences in generalized methods of moments (GMM) estimations. We use F_{ST} distance, which measures the probability that two random alleles (DNA variations) from two populations will be different (Cavalli-Sforza, Menozzi, and Piazza, 1994; Spolaore and Wacziarg, 2009). To measure somatic difference, we use data originally collected in Biasutti (1954) on height, hair color, and cephalic index (dimensions of the head) for European countries, made available by Guiso, Sapienza, and Zingales (2009a).

Panel A of Table 4 presents estimates using genetic distance to proxy for cultural difference. All of the controls are identical to those used in Table 3. The results indicate that genetic differences are strong instruments for differences in trust, which remains negative and

significant. Differences in hierarchy are also negative and significantly related to cross-border mergers. Finally, genetic distance has no power to predict distance in individualism. In Panel B, with a constrained sample from the limited data on somatic distance, the difference in trust is still negatively related to cross-border merger activity, though the other two variables are insignificant.

Though genetic and somatic distance are not powerful predictors of all three cultural values that we study, this is not surprising. Cultures are likely determined in part by factors unrelated to genetics and physical features. Finding exogenous instruments that simultaneously capture the variation in multiple cultural dimension is highly unlikely. However, strong evidence that cultural values lead to legal institutions, rather than vice versa, can be found in Licht, Goldschmidt, and Schwartz (2007), Tabellini (2008), and Gorodnichenko and Roland (2010). Our results confirm the findings in these papers and provide some assurance that our main results are not driven by reverse causation or omitted variables.

4.3. Merger Gains Results

In this section, we apply the gravity model to tests of the combined gains in cross-border mergers. We have established in the prior section that there is a selection effect on cultural differences in cross-border mergers. Mergers are not randomly assigned, but rather only mergers with expected positive gains are undertaken. Thus the mergers that we observe have strong enough economic motivations that the synergy gains outweigh the costs of cultural differences.

To address this selection bias in tests of merger outcomes, we need to account for the likelihood that two firms merge. We do this by running a two-stage Heckman model. We first run a probit analysis using the same variables as in column (4) of Table 3, where the dependent variable is equal to one if two countries had any cross-border mergers, and zero otherwise. For each country-pair, we calculate the predicted probability of a cross-border merger from the fitted values of the probit model. Then, at the deal-level we use this country-pair predicted probability to proxy for the likelihood of a merger, which is indicated in the regression results as 'Heckman's Lambda.'

Table 5 presents coefficient estimates of the effect of cultural differences on combined returns in cross-border mergers where we include the same controls as before including country-level fixed effects, but also deal-level characteristics known to affect announcement returns. We include each measure of culture separately in columns (1) through (3) and then all together in column (4). Consistent with prior studies, other variables affect cross-border merger returns in predictable ways. These include the negative effect of larger acquirers, and the positive effects of the target's relative size to the acquirer, using cash as payment, and the use of a tender offer.

Turning to our hypothesis, we find that the greater is the distance between two countries along the cultural dimensions of trust and individualism, the lower are the combined announcement returns of a merger. This effect is consistent with the results found for the role of trust and individualism on the volume of cross-border mergers. These effects are also economically significant. Increasing the distance in trustfulness from the 25th percentile to the 75th percentile leads to a 25 percent reduction from the median combined return of 2.1 percent, and a 14 percent reduction of the average combined return of 3.6 percent. For the same change in individualism, there is a corresponding reduction by 29 percent from the median combined return and a reduction of 17 percent from the average. In dollar terms, this implies a range of value loss for median size firms of $12 million to $14.6 million. For average size firms, the loss is $47 to $57 million.

4.4. Summary of the Effect of Culture on the Volume and Gains of Mergers

Our empirical evidence provides strong support for the hypothesis that cultural values impact both cross-border merger activity and wealth creation. We find that higher levels of cross-border merger activity are explained in part by less cultural differences between two countries along all three of the most cited dimensions of cultural identity: trust, hierarchy, and individualism. Likewise, greater cross-country similarity of trustfulness and individualism increases the combined gains in cross-border mergers. These results hold in instrumental variables tests that control for endogeneity and reverse causality. These findings are consistent with the notion that cultural distance impedes mergers by introducing costly frictions. Taken together, these results intuitively fit into a rational trade off between the costs and benefits of mergers.

5. The Effect of Culture on Merger Negotiations

Given that culture displays strong effects on aggregate merger outcomes, we next investigate whether culture affects merger negotiations. In particular, we examine the role of cultural differences for the division of the total gains between the bidder and the target and the use of particular deal structures. However, in contrast to the natural application of a gravity model to cultural distance used in our prior tests, for the following analysis we have less formal theory to guide us. Instead, we offer a number of possible explanations for why culture may affect merger negotiations, with the caveat that other possible explanations exist. Ultimately, finding any significant relationship between culture and merger negotiations would be a new contribution to our limited understanding of culture in economics. Since mergers are simply transactions with large stakes, we believe these tests will provide new non-experimental evidence about the role of culture in negotiations for transactions in general, not just corporate mergers.

Table 6 reports univariate tests of deal characteristics by differences in cultural values between countries. In contrast to earlier tests, we are now interested in the directional difference between cultural variables, rather than the absolute distance. In particular, Δ Trust is calculated as the trust level of the acquirer's nation minus the trust level of the target's nation. Δ Hierarchy and Δ Individualism are calculated analogously.

We find that the difference in cultural values between acquirer and target nations are significantly associated with differences in a number of important deal characteristics. For instance, acquirer countries that are more hierarchical than target countries are associated with significantly higher likelihoods of all cash offers, friendly offers, termination fees, and larger targets relative to the acquirer. Significant differences are also found for differences in trust and individualism. Of course, these differences may be correlated with other country-level features, so we must run multivariate regressions to identify their marginal effect. To do this, we focus on four important deal characteristics: 1) the division of gains in a merger, 2) the use of cash payments, 3) the use of target termination fees, and 4) the likelihood that a merger is structured as a tender offer. These characteristics are important considerations in almost every merger negotiation.

5.1. Culture and the Division of Merger Gains

We conjecture that cultural values may have a systematic effect on the division of gains. Butler, Giuliano, and Guiso (2009) find evidence that individuals who have the 'right amount of trust' have higher incomes. The right amount of trust for an individual is equal to the median level of trust within the local economy: those who trust others too much get taken advantage of; those who do not trust others enough forego good opportunities. In a acquisition setting, this line of thought predicts that a firm from a country with high levels of trust, relative to the merger partner, will capture a smaller percentage of the total gains since it is more likely to be deceived by its merger partner. An alternative hypothesis is that trust engenders reciprocity. In experiments of the trust game, kind behavior is rewarded by a kind response (Berg, Dickhaut, and McCabe, 1995). Thus, firms that exhibit more trust may receive a larger share of the gains.

Second, cultural differences in egalitarianism may affect bargaining positions since egalitarian cultures place a high importance on equality. In contrast, hierarchical cultures believe that some members of society are more important than others. How these two different views would interact is not clear, but it seems likely that they would have a direct relationship on bargaining.

Finally, the naïve expectation is that firms from more individualistic nations will capture a larger share of the gains when merging with firms from more collectivist nations. Collectivist cultures will be more likely to sacrifice personal gains for the benefit of overall gains. However, collectivism is group-specific. If the firm with collectivist values does not consider the merger partner to be part of its group, it may resist the merger and reduce the overall gains. Indeed, collectivist cultures are more attuned to identities of group-membership than individualistic cultures (Brett, 2000).

We investigate the outcomes of bargaining by measuring the division of gains in mergers. To measure the division of gains we would ideally divide the dollar value of total gains by the fraction that each firm received, akin to splitting a pie. However, since each firms' dollar gains, as well as the combined gains, are not always positive, we can not use this method. Instead, we follow Ahern (2009) and take the difference of dollar abnormal returns between the acquirer and target, normalized by the sum of the firms' market equity two days before the announcement.

This is:

$$\text{Acquirer's Relative Gain} = \frac{MV_{A,-2} \cdot CAR_{A,-1,+1} - MV_{T,-2} \cdot CAR_{T,-1,+1}}{MV_{A,-2} + MV_{T,-2}} \tag{2}$$

where $MV_{i,-2}$ is the market value of the acquirer ($i = A$) or target ($i = T$) two days before the announcement. Across our sample, the acquirer's relative gain is -3.2 percent on average. This means for each dollar of aggregate pre-merger market value of the acquirer and target, the acquirer receives about 3 cents less than the target in abnormal gains.

Table 7 presents the results of multivariate regressions of cultural values on the relative gain of the acquirer in cross-border mergers. As before we include Heckman's lambda to account for sample selection, since acquirers may choose targets based on bargaining power embedded in cultural differences, or vice versa. Because we use signed differences in cultural variables, we only include the acquirer's country fixed effect, not both. Including both countries' fixed effects would generate perfect collinearity with our cultural difference measures. For additional robustness, in column (5) of Table 7, we include acquirer-nation-year fixed effects.

We find strong evidence that cultural differences affect bargaining outcomes. When the acquirer is relatively more trusting than the target, the acquirer realizes greater relative gains. Moving from the 25th to the 75th percentile of the difference in trustfulness or hierarchy leads to an increase in the acquirer's gain relative to the target's of 1.7 percentage points, compared to the median of -1.9 percent. For comparison, a change from the 25th to 75th percentile in the relative size of the target to the acquirer leads to a drop of 0.6 percentage points in the acquirer's gain relative to the target. In dollar terms, for a median size target and acquirer, the effect of greater trustfulness translates into about a $41 million increase for the acquirer. These results are consistent with the experimental evidence that trust engenders reciprocity. This is also consistent with the idea that acquirers receive a premium for their trustfulness, since trust increases the likelihood of completing the deal and successfully integrating the two firms.

5.2. Culture and Deal Structure

In this section of the paper we investigate the role of culture on the presence of three deal characteristics: cash payment, target termination fees, and tender offers. As with bargaining,

we offer possible explanations for the role of culture in these three deal characteristics. First, if trust reduces the perceived uncertainty about a deal, stock payments may be more common than cash payments when targets are more trusting. Similarly, if acquirers are more trusting, they may be less likely to use target termination fees, as trust may substitute for formal written contracts. It is also likely that less trustful acquirers may make direct tender offers to target shareholders, rather than negotiate with target management.

Hierarchy may also affect the prevalence of certain deal characteristics. If targets are more egalitarian, and hence less likely to follow the orders of the acquirer's management post-merger, then stock payments may be needed to give incentives to the target's largest employee-shareholders. Since more hierarchical countries believe economic incentives are important, termination fees may be more likely used in order to provide an incentive to complete a merger. Finally, more egalitarian cultures may be more likely to negotiate mergers rather than use tender offers.

Finally, individualism may also affect how mergers are structured. It is possible that mergers of more collectivist firms will be more likely to use stock as payment, rather than cash, in order to share risk. Collectivist firms may also be more likely to negotiate mergers, rather than use tender offers, which are typically more hostile. Again, these are not an exhaustive list of explanations, but their diversity points out the field's general lack of understanding of how cross-cultural differences affect negotiation.

5.2.1. Culture and Method of Payment

In column (1) of Table 8 we report the coefficient estimates of a fixed effects logit regression where the dependent variable is a dummy variable equal to one if a merger is paid entirely in cash, and zero otherwise. Consistent with prior research on the effect of information asymmetry on form of payment (Andrade, Mitchell, and Stafford, 2001; Moeller, Schlingemann, and Stulz, 2007), we find that friendly mergers in the same industry, where acquirers and targets share a common geographic border, use less cash and more stock. Taxes are also significant in our regressions, consistent with prior work (Huang and Walkling, 1987; Asquith, Bruner, and Mullins Jr., 1990).

Turning to our variables of interest, controlling for a wide range of variables, national cultural differences significantly affect the choice of cash or stock as a form of payment in a merger. When targets are less trusting of others than are acquirers, more cash is used. This is consistent with the idea that trust diminishes the effect of information asymmetry and allows stock to be used as payment. Second, when people in the home country of the target are more likely to follow directions without being convinced first than are people in the acquirer's home country (i.e., the targets are more hierarchical), cash is more likely used as payment. This is consistent with the conjecture that when target employees are less likely to follow directions from the acquirer, using acquirer stock will provide better incentives, whereas target employees that will follow directions do not require stock incentives.

5.2.2. Culture and Target Termination Fees

In column (3) of Table 8, we present coefficient estimates from a fixed effects logit regression where the dependent variable equals one if the deal includes a target termination fee. Similar to the use of cash payments, target termination fees are more common when there is greater information asymmetry between targets and acquirers, consistent with an insurance motive (Officer, 2003; Bates and Lemmon, 2003; Boone and Mulherin, 2006). In particular, when acquirers and targets do not share the same language or legal system, and when acquirer stock volatility is higher, termination fees are more common.

National culture also affects the likelihood of the use of termination fees. When targets are more hierarchical than acquirers, termination fees are more common. Since hierarchical countries place greater weight on economic incentives, it is reasonable that firms from these countries would be more likely to use termination fees in a merger agreement.

5.2.3. Culture and Tender Offers

The last aspect of negotiation that we investigate is the use of tender offers to complete a merger. Tender offers are made directly to target shareholders, in contrast to a negotiated merger where acquirers make their offer to the board of directors of the target firm. It is often the case that tender offers are made to purposely exclude target executives from the

negotiation, though it is not always the case.[3] Therefore, we distinguish between tender offers and negotiated offers.

Column (3) of Table 8 presents estimates of fixed effects logit coefficients where the dependent variable equals one if the deal is a tender offer and zero otherwise. We find that culture affects this decision as well. When targets are more hierarchical (more likely to follow directions from superiors), negotiated mergers are more likely. It is possible that this reflects that greater hierarchical values may be substitutes for formal contracts.

5.3. Summary of the Effect of Culture on Merger Negotiations

In this section, we have documented strong empirical relationships between national culture and the ways in which mergers are structured, as well as the bargaining outcomes in mergers. We find that acquirers from more trusting and hierarchical countries receive a statistically higher gain relative to the target, than acquirers in countries that are less trusting and more egalitarian. We next document numerous differences in deal structures by differences in national cultural values. In detailed tests, we show that culture affects the form of payment used in mergers, the presence of termination fees, and whether deals are structured as tender offers, after controlling for a host of country-level variables. We do not claim that these results support one particular theory over another. Instead, the contribution of these results is that they are the first to show an empirical relation between culture and merger negotiations.

6. Robustness Checks

In this section of the paper, we describe various robustness checks to ensure our results are not driven by U.S. firms, nor our measures of national culture, nor that our effects are driven by differences in the cultural values of investors, rather than firms.

6.1. Excluding U.S. Firms

Because U.S. firms account for a large fraction of our sample, we verify that our results do not change if we exclude these firms from our analyses. Since our measures of merger activity

[3]In some instances, tender offers are simply made for legal reasons after the merger has been successfully negotiated with the target board. Our data does not allow us to distinguish these two types.

are at the country-year level, our sample size is only reduced slightly by this exclusion. We find that the results on merger volume are unchanged across all three dimensions. Excluding U.S. firms as either targets or acquirers reduces our sample of public acquisitions from 827 to 405. However, the results on combined returns are unchanged and actually show a larger and more significant effect of cultural differences. In our tests of the acquirer's gain relative to the target's gain, trust remains significant after excluding U.S. firms, though hierarchy becomes insignificant. Overall, the robustness tests indicate that our results are not driven by U.S. firms. These results are available in the online appendix.

6.2. Alternative Cultural Measures

Measures of cultural values other than the World Value Survey have been used in prior literature. Hofstede (1980, 2001) categorizes culture into five dimensions: uncertainty avoidance (the extent to which a society feels threatened by uncertainty), masculinity (the extent to which a society holds values traditionally identified as masculine: assertiveness, materialism, and not caring for others), power distance (similar to our hierarchical classifications), individualism (as we categorize it as well), and short-term versus long-term orientation. Hofstede measured national culture along these five dimensions using surveys responses from over 88,000 employees of IBM in 40 countries in 20 languages in the 1960s and 1970s. See Kirkman, Lowe, and Gibson (2006) for a comprehensive survey of research using Hofstede's measures.

Alternatively, Schwartz (1994) defines three dimensions of cultural values: Embeddedness versus Autonomy (similar to our individualism dimension), Hierarchy versus Egalitarianism (same as our Hierarchy dimension), and Mastery versus Harmony (where Mastery is an emphasis on dominating an environment through assertion and harmony refers to finding one's place in an existing environment). Schwartz's data come from survey responses of more than 25,000 elementary school teachers and university students in 44 countries.

We use the World Value Survey to measure culture because it provides the broadest and most up-to-date information on cultural values and because the WVS allows us to measure the two cultural values that overlap with both the Hofstede and Schwartz measures: hierarchy and individualism, as well as the question used to measure trustfulness in prior research. For

robustness, we study the effects of cultural values measures from Schwartz (1994) and Hofstede (2001). First, we find results that are generally consistent with our main findings when we use the Schwartz or Hofstede measures of hierarchy and individualism, though in some cases they are mixed. For instance, the absolute cross-country difference of each of the alternative measures are all either negative or zero in the tests of cross-border merger activity, with the Hofstede variables behaving closer to the WVS variables. It is reasonable that in some cases there will be lower significance levels or conflicting results given the wide differences in sampling methods, sample sizes, and the exact questions asked. These results are available in the online appendix.

6.3. Long-Run Effects

One may argue that the empirical relationship between national culture and mergers reflects that investors in different countries respond differently to mergers, rather than reflecting the ease of transactions or costly post-merger integration. Our first response to this criticism is that only part of our results are driven by initial investor reactions, whereas the volume of mergers, as well as the deal characteristics, are not based on market responses. Despite the well known problems of identifying long-run stock market performance (Lyon, Barber, and Tsai, 1999; Mitchell and Stafford, 2000), to address the concern for the set of results based on acquirer announcement returns, we investigate long-run stock returns using a buy-and-hold approach. Using country-level market equity, book-to-market, and momentum benchmarks, as well as an analogous world benchmark, we find no consistent significant effects of national culture on long-run acquirer stock returns. This is consistent with market efficiency, where the value effects are captured at the announcement and no momentum or reversals are observed on average. These additional tests provide some assurance that our results on combined merger gains are not driven simply by cultural differences in stock market investors.

7. Conclusion

This paper investigates the role of national cultural values on the incidence, gains, and bargaining process in cross-border mergers. In a comprehensive sample of 27,753 cross-border

mergers from 52 different countries over 1991 to 2008, we find that culture has a significant and economically meaningful effect on the volume of cross-border mergers. Controlling for country-level fixed-effects as well as a multitude of country-pair variables including shared legal origin, language, religion, geographic distance and more, we find a strong negative relationship between cultural distance and the volume of cross-border merger activity between two countries. In particular, the greater is the cross-country difference between the values of trustfulness, hierarchy, and individualism, the smaller is the cross-border merger volume. Similarly, less cultural distance along the dimensions of trust and individualism leads to higher combined announcement returns in cross-border mergers. This is consistent with the hypothesis that cultural differences impose costly frictions between firms which lead to fewer mergers and mergers that create less value.

Next, we provide new evidence that culture affects negotiations in cross-border mergers. First, consistent with a strain of recent experimental evidence on bargaining and culture, we find that certain cultural values are associated with larger bargaining outcomes. Firms that are more trusting and hierarchical capture significantly more gains than firms that are less trusting and more egalitarian. Though there are no formal theories of the role of culture on bargaining outcomes, we propose rational explanations for these effects. Second, we show that culture helps explain the form of payment, the use of termination fees, and whether mergers are negotiated or completed via a tender offer in cross-border deals. For example, cash is more commonly used as a form of payment if targets are less trusting than acquirers.

This paper is part of a growing field of research that connects finance with sociology. Our findings show that culture matters, even when the financial stakes are very large. These results and others in this literature question many of the assumptions that are made in classical economics and highlights the need for new theories that can account for behavior that does not follow that of the so-called 'Economic Man.'

Appendix: Variable Definitions

Acquirer's gain relative to target's gain: The dollar abnormal returns of the acquirer minus the dollar abnormal returns of the target divided by the sum of the firms' market equity two days before the announcement. A firm's dollar abnormal returns are the cumulative abnormal returns scaled by market value (Source: Authors' calculations).

All cash: Dummy variable equal to 1 if the payment in the merger is made with all cash (Source: SDC).

Bilateral Investment Treaty: Dummy variable equal to 1 if the acquirer and target nation signed a Bilateral Investment Treaty (Source: UNCTAD).

Combined $\mathbf{CAR}_{(-1,+1)}$: The weighted cumulative abnormal return in the three days surrounding the merger announcement of the acquirer and target firm, where firm weights are based on market values two days before the announcement. Cumulative abnormal returns are calculated as the sum of the firm's raw return minus the Datastream country index of the firm's host country over the three days (Source: Authors' calculations).

Corporate tax rate: Country corporate tax rate percentage in 2008 (Source: Economic Freedom Index 2009).

Days to completion: Number of days between the announcement and the completion of the merger (Source: SDC and authors' calculations).

Double-Tax Treaty: Dummy variable equal to 1 if the acquirer and target nation signed a Double Taxation Treaty (Source: UNCTAD).

Exchange rate growth: Exchange rate growth 1 year prior to the announcement between the acquirer and target nation (Source: I/B/E/S database).

Exchange rate volatility: Exchange rate standard deviation from 36 months up to 1 month prior the announcement, between the acquirer and target nation (Source: I/B/E/S database).

Financial acquirer: Dummy variable equal to 1 if SDC reports the acquirer as a financial acquirer (Source: SDC).

Friendly offer: Dummy value equal to 1 if a merger attitude is classified as friendly (Source: SDC).

GDP per capita: Annual Gross Domestic Product per capita (Source: Penn World Table 6.3).

Genetic distance: F_{ST} distance, a measure of the probability that two random alleles (DNA variations) from two populations will be different, based on the dominant population of a country (Source: Cavalli-Sforza, Menozzi, and Piazza (1994) and Online

Appendix of Spolaore and Wacziarg (2009)).

Geographic Distance: Geographic distance between capitals. The geographical distances are calculated following the great circle formula, which uses latitudes and longitudes of the most important city (in terms of population) or of its official capital (Source: CEPII).

Hierarchy: Average answer to the following question: "People have different ideas about following instructions at work. Some say that one should follow one's superior's instructions even when one does not fully agree with them. Others say that one should follow one's superior's instructions only when one is convinced that they are right. With which of these two opinions do you agree? (1) Should follow instructions (2) Must be convinced first (3) Depends" (Question V105) (Source: World Value Survey).

Individualism: Average answer to the following question: "Incomes should be more equal or We need larger income differences as incentives for individual effort" (Question V141) (Source: World Value Survey).

Language: Primary spoken language of a country (Source: CIA World Factbook 2008).

Legal system: Common or civil law origin countries, with the latter further classified as French, German, or Scandinavian (Source: La Porta et al., 1998).

Majority cash: Dummy variable equal to 1 if the merger payment is made with at least 50% cash (Source:SDC).

Market value: The value of equity 10 days before the merger announcement (Source: Compustat Global).

Merger of equals: Dummy variable equal to 1 if the merger is recorded by SDC as a merger of equals (Source: SDC).

Openness: Exports plus Imports divided by GDP as a percentage of GDP. The export and import figures are in national currencies from the World Bank and United Nations data archives (Source: Penn World Tables 6.3).

Past year return: Stock buy-and-hold return in the 12 months prior to the announcement month (Source: Compustat Global and CRSP).

Past year return volatility: Stock return volatility in the 12 months prior to the announcement (Source: Compustat Global and CRSP).

Premium: The transaction value reported by SDC divided by the market value of the target 30 days before the announcement (Source: SDC and Compustat Global and CRSP).

Relative size: The ratio of the transaction value to the target market value at the announcement date (Source: SDC).

Religion: The primary religion in a country (Source: CIA World Factbook 2008).

Same Industry: Dummy variable equal to 1 if the acquirer and target have the same 3-Digit SIC Code (Source: SDC).

Share Border: Dummy variable equal to 1 if the acquirer and target nations share the same border (Source: CEPII).

Somatic distance: The sum of the absolute difference between a sample of European countries in each of three traits of the indigenous population: height, hair color, and cephalic index as reported by Biasutti (1954) (Source: Online Appendix of Guiso, Sapienza, and Zingales (2009a)).

Target defense: Dummy variable equal to 1 if a target company uses anti-takeover defenses to attempt to prevent the merger (Source: SDC).

Tender offer: Dummy variable equal to 1 if a merger is a tender offer, 0 otherwise (Source: SDC).

Termination fee: Dummy variable equal to 1 if the merger agreement includes an acquirer or target termination fee (Source: SDC).

Transaction value: The dollar value of all consideration paid in a merger minus costs and fees (Source: SDC).

Trust: Average answer to the following question: "Generally speaking, would you say that (1) Most people can be trusted (2) Need to be very careful" (Question V25)(Source: World Value Survey).

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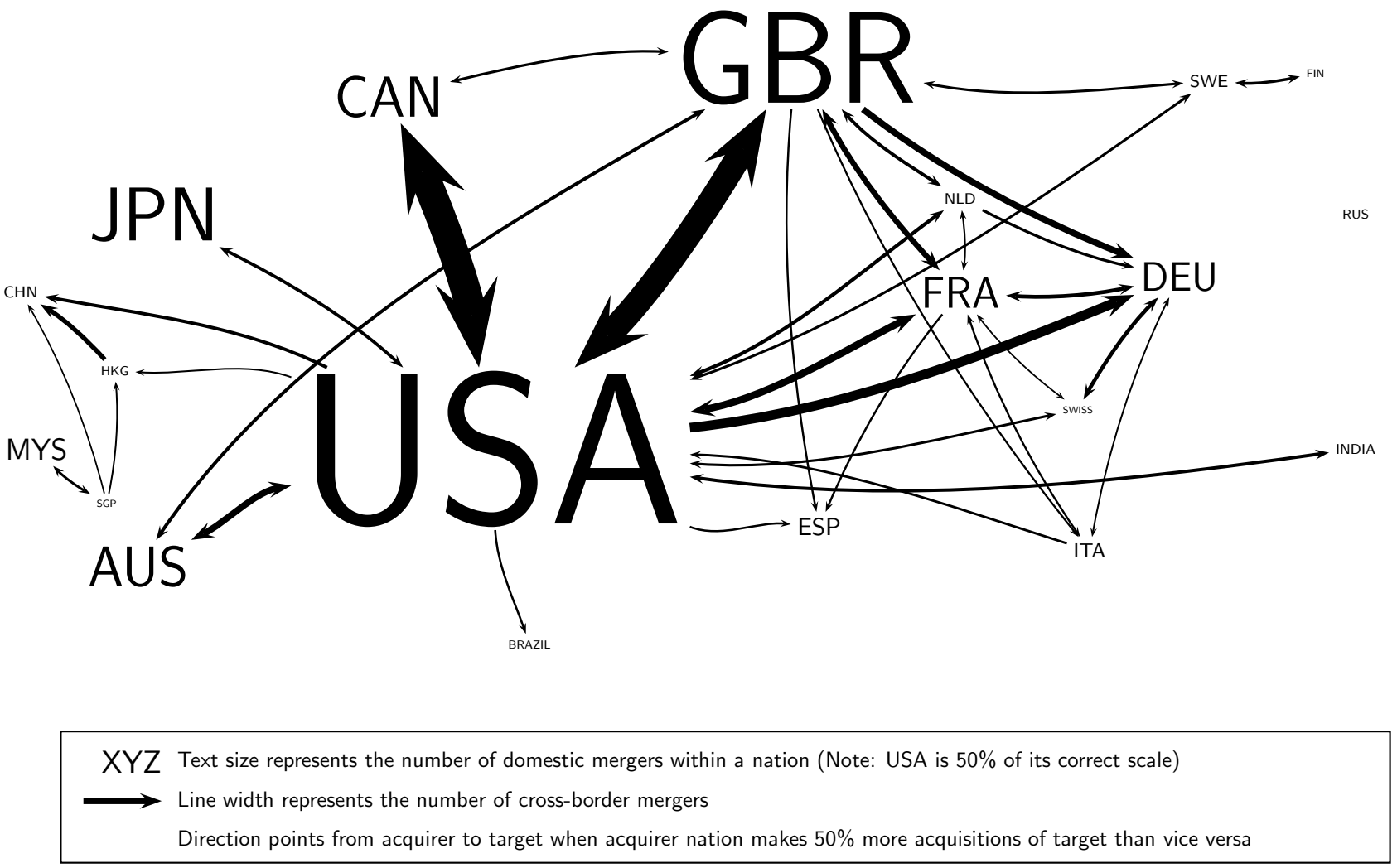

FIGURE 1
Cross-Border Activity for the 20 Most Active Domestic M&A Markets 1985–2008
The 20 most active domestic merger markets are determined by the total number of domestic mergers over 1985–2008, where acquirers and targets are public, private, and subsidiary firms listed on SDC Thompson Database.

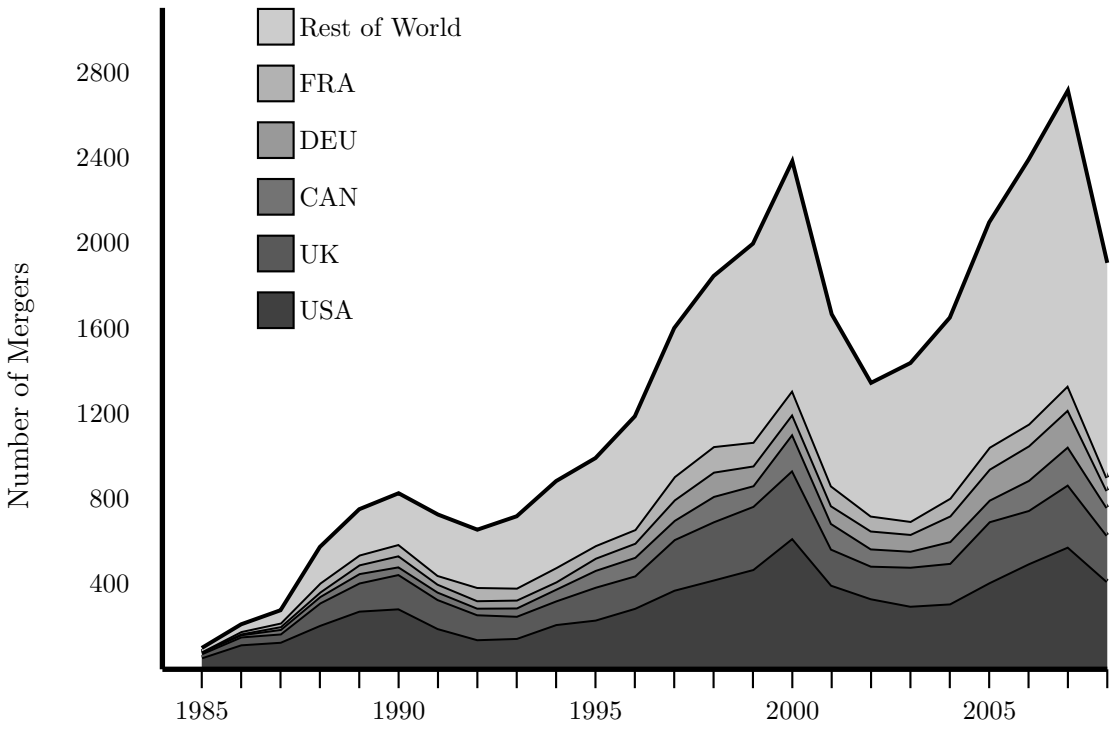

FIGURE 2
Five Largest Cross-Border Merger Markets
Largest cross-border target nations are determined by the number of cross-border mergers in 1985–2008 where the target firm was located in a particular country. Mergers include all public, private, and subsidiary targets and acquirers from SDC Thomson database.

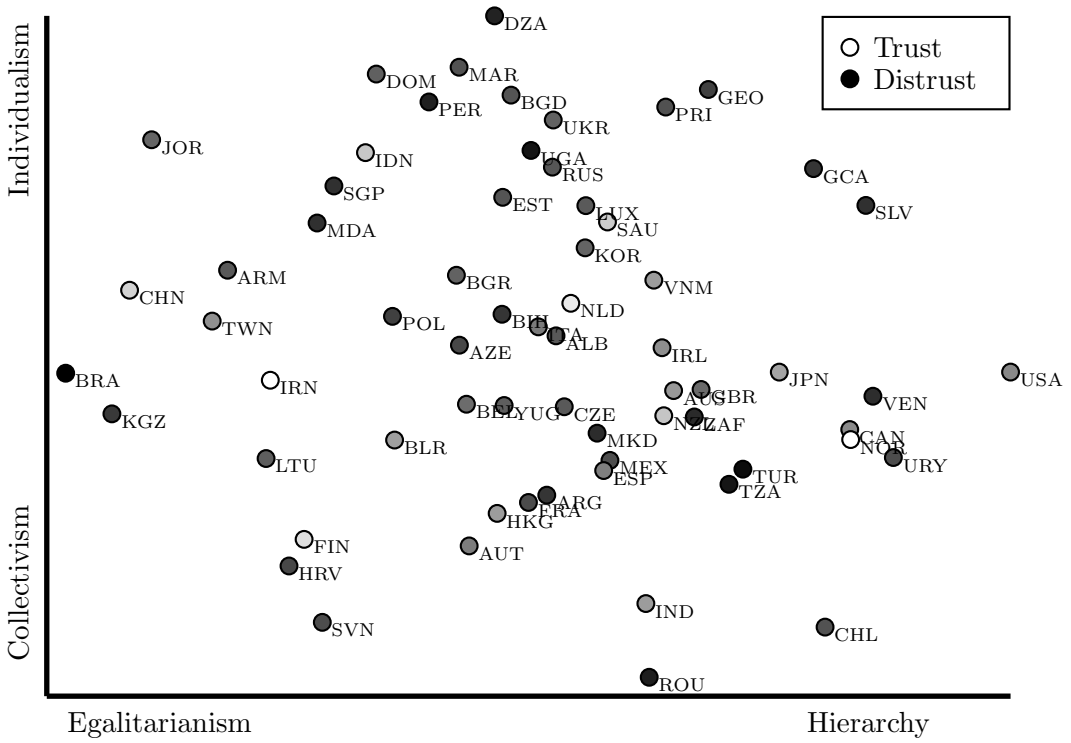

FIGURE 3
Cultural Values Across Nations
Each circle represents a country's relative scores from three questions on the World Value Survey, 1999–2004. Positioning along the horizontal axis indicates the country's degree of hierarchal vs. egalitarianism (measured as whether people believe they should follow instructions from a superior at work even if they do not agree vs. having to be convinced first). Positioning along the vertical axis indicates the country's degree of individualism vs. collectivism (measured as whether people believe income differences are an incentive for effort vs. whether incomes should be made more equal). The coloration of each circle indicates the country's degree of trust (measured as whether people believe most other people can be trusted or not). A lighter color indicates a more trusting country, a darker color indicates more distrust of others. Country abbreviations follow the three-digit ISO codes.

TABLE 1

Number of Mergers in the Thirty Largest Target Nations, 1985-2008

Data is from SDC Platinum M&A Database. Acquiring nations are listed on the row variables and target nations on the columns. The countries are rank ordered by the number of target firms in each country. Values in the total column and row include all mergers, not just mergers from the top 30 markets. Only mergers where more than 50% of the target shares are owned by the acquirer after the merger are included. Government owned firms and firms with an unknown public status are excluded.

ACQUIRER NATION	TARGET NATION																													
	US	UK	CA	AU	JP	FR	WG	IT	SP	SW	CH	HK	NT	MA	BR	SA	SK	NO	SG	NZ	FN	IR	IN	DN	BL	SZ	AR	MX	PL	RU	TOTAL
USA (US)	48037	1621	1209	336	99	423	492	144	117	147	129	94	183	17	108	28	64	74	40	52	41	77	62	63	63	91	84	132	42	30	54784
U.K. (UK)	2135	17558	196	288	19	521	479	190	190	177	33	48	328	10	29	81	16	76	29	33	37	200	26	65	108	76	14	15	35	25	23441
Canada (CA)	1535	171	4872	81	3	54	36	11	12	15	25	13	22	2	32	15	5	5	3	17	8	5	2	4	8	10	23	50	6	6	7263
Australia (AU)	313	158	42	4688	5	14	31	12	12	5	22	20	12	8	6	16	4	3	23	183	4	2	7	1	7	4	3	1	6		5722
Japan (JP)	384	76	13	27	3303	18	25	9	10	5	17	22	10	6	8	5	11	1	16	1	4		3	5	6	3		2	1	2	4043
France (FR)	264	202	30	17	4	1645	87	65	76	25	11	8	33		29	6	7	13	6	3	6	4	7	13	45	21	9	3	15	1	2769
Germany (WG)	245	192	17	24	6	97	833	35	44	39	9	2	33	5	14	5	8	11	7		11	6	12	20	16	34	1	3	22	2	1879
Italy (IT)	82	50	9	5		73	49	1362	45	3	6	1	17		14	7	1	4	2		1	3	2	2	10	18	9	4	6	4	1861
Spain (SP)	64	41	2	4	2	46	20	37	1245	3	3	3	7		41	2	3	2	1		7	1	1	2	5	4	36	23	7	1	1761
Sweden (SW)	122	109	13	17		41	61	21	19	926	3	2	27	2	1	4	5	92	2	1	87	4	3	75	11	17	1	4	10	9	1745
China (CH)	23	2	10	12	2	1	3	3			885	69	2				1		8	3		1		1		1	1			1	1044
Hong Kong (HK)	60	36	18	48	12	9	9	3	2	5	262	1095	2	13	3	3	9		37	6			8	1		2		2			1717
Netherlands (NT)	184	148	19	19	7	69	63	31	47	35	9	4	443	6	8	1	8	10	3	5	12	5	5	16	48	11	2	8	8	5	1337
Malaysia (MA)	15	15	4	31			5			1	14	24	2	1118	2	4	2	2	44	5			6	1		4					1356
Brazil (BR)	17	2	5	2	1	2	1	2	2				1		663			2									21	1			751
S Africa (SA)	34	67	6	43		2	4	3		1		3	3		1	794	1		1	2	1		2	1	1	2	1			1	1013
South Korea (SK)	37	3	4	5	5		4				31	5		2		2	733	1	2	1			4		1		1		3		865
Norway (NO)	24	59	12	5	1	14	21	1	10	100		1	8		2	1	2	498	4	1	16	3	2	38	4	3			6	2	872
Singapore (SG)	63	33	4	86	7	2	9	1		4	63	75	5	41	2	1	7	1	568	15	1		7	2	2	3		1			1104
New Zealand (NZ)	15	14	6	88			1	2			1	3	2		1					445						2		1			588
Finland (FN)	59	27	7	3		14	30	6	2	72	3	2	16	1	3			27	2		449		2	11	4	6		1	4	13	801
Ireland (IR)	140	320	3	8	2	11	22	1	7	7	1		31		3	1		2	1		4	355		4	6	2	2	3	3	1	959
India (IN)	106	53	7	11	1	11	12	5	5	1	2	1	1	3	2	3	1	1	13	1	3	3	439	2	3	3	2	1	1	2	740
Denmark (DN)	32	49	6	7		16	23	4	7	63	3	3	14	2	4	1	1	19	3	1	11	1	3	253	3	5		2	10		564
Belgium (BL)	61	41	3	6	1	70	27	9	9	5	2		31		4	1	3	2			3	2	4	5	209	7	2		1	2	541
Switzerland (SZ)	147	60	21	25	2	41	43	20	13	13	1	3	14	2	7	7	3	7		1	7	2	6	4	4	188	3	1	1	2	694
Argentina (AR)	5		1			1			2		1				13												296	3			337
Mexico (MX)	45		3	2					2					1	14			1					1				7	201			306
Poland (PL)		2					3		3	1			1													1			220	1	266
Russian Fed (RU)	18	9	6		1		1	4		1			5	1		1	1	1			2		1	1	1		1			287	397
TOTAL	55407	21689	6752	6128	3513	3303	2551	2062	1970	1688	1602	1578	1315	1267	1070	1011	915	896	867	811	734	692	641	613	583	557	554	483	443	441	127977
% Foreign Acquirer	13.3	19.0	27.8	23.4	5.9	50.1	67.3	33.9	36.8	45.1	44.7	30.6	66.3	11.7	38.0	21.4	19.8	44.4	34.4	45.1	38.8	48.6	31.5	58.7	64.1	66.2	46.5	58.3	50.3	34.9	24.1

TABLE 2
Summary Statistics of Country Variables
This table presents means, standard deviations, percentiles, and the number of observations for each variable. Observations are at the country-year level in Panel A, the country-pair-year in Panel B, and deal-level in Panel C. | Δ | indicates the absolute difference between the acquirer and target nation. Mergers in Panels A and B include all public, private, and subsidiary targets and acquirers from SDC Thomson database over 1991–2008. In Panel C, mergers only include public targets and acquirers. Trust is measured as whether people believe most other people can be trusted or not. Hierarchy is measured as 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 measured as whether people believe income differences are an incentive for effort vs. whether incomes should be made more equal. All variables are defined in the appendix.

	Mean	Std. Dev.	25th	50th	75th	Obs.
Panel A: Country-Level Variables						
Trust	0.318	0.159	0.213	0.292	0.400	27,753
Hierarchy	0.477	0.105	0.411	0.484	0.547	27,753
Individualism	0.528	0.107	0.452	0.523	0.608	27,753
Roman Catholic	0.508	0.500	0.000	1.000	1.000	27,753
Protestant	0.167	0.373	0.000	0.000	0.000	27,753
Muslim	0.091	0.288	0.000	0.000	0.000	27,753
Orthodox	0.039	0.195	0.000	0.000	0.000	27,753
French Civil Law	0.421	0.494	0.000	0.000	1.000	27,753
German Civil Law	0.264	0.441	0.000	0.000	1.000	27,753
English Common Law	0.208	0.406	0.000	0.000	0.000	27,753
Scandinavian Civil Law	0.107	0.309	0.000	0.000	0.000	27,753
ln(GDP)	19.646	1.470	18.803	19.575	20.752	27,753
ln(GDP/Capita)	0.018	0.012	0.008	0.017	0.026	27,753
Corporate Tax Rate	0.260	0.060	0.210	0.265	0.300	27,753
ln(Openness)	0.076	0.051	0.049	0.065	0.090	27,753
Panel B: Country-Pair Variables						
ln(M&A Dollar Volume$_{ijt}$)	1.023	2.321	0.000	0.000	0.000	27,753
ln(Number of M&As$_{ijt}$)	0.287	0.753	0.000	0.000	0.000	27,753
ln(| Δ Trust|)	0.154	0.112	0.062	0.135	0.232	27,753
ln(| Δ Hierarchy|)	0.107	0.079	0.045	0.091	0.157	27,753
ln(| Δ Individualism|)	0.109	0.079	0.046	0.094	0.161	27,753
ln(| Δ Corporate Tax Rate|)	0.064	0.047	0.025	0.054	0.095	27,753
Same Religion	0.308	0.462	0.000	0.000	1.000	27,753
Same Language	0.057	0.232	0.000	0.000	0.000	27,753
ln(Geographic Distance)	8.420	1.136	7.609	8.903	9.253	27,753
Share Border	0.045	0.208	0.000	0.000	0.000	27,753
Exchange Rate Volatility	0.037	0.048	0.022	0.030	0.039	27,753
Exchange Rate Growth	0.005	0.206	−0.071	0.000	0.072	27,753
Double-Tax Treaty	0.602	0.490	0.000	1.000	1.000	27,753
Bilateral Investment Treaty	0.408	0.491	0.000	0.000	1.000	27,753
Same Legal System	0.810	0.392	1.000	1.000	1.000	27,753
ln(Genetic Distance)	5.487	2.366	3.951	6.839	7.127	27,086
ln(Somatic Distance)	1.103	0.533	0.693	1.386	1.609	2,844

continued on next page

Table 2 - *Continued*

	Mean	Std. Dev.	25th	50th	75th	Obs.
Panel C: Deal-Level Variables						
Combined $CAR_{(-1,+1)}$	0.036	0.075	−0.008	0.021	0.064	827
Acquirer $CAR_{(-1,+1)}$	0.002	0.055	−0.027	0.001	0.030	827
Target $CAR_{(-1,+1)}$	0.169	0.185	0.033	0.126	0.253	827
Acquirer Gain Relative to Target	−0.032	0.075	−0.059	−0.019	0.008	827
ln(| Δ Trust|)	0.113	0.086	0.048	0.091	0.161	827
ln(| Δ Hierarchy|)	0.128	0.081	0.063	0.127	0.184	827
ln(| Δ Individualism|)	0.068	0.050	0.022	0.063	0.105	827
Transaction Value × 1,000 ($billions)	1.881	8.444	0.105	0.377	1.323	827
Relative Size	0.850	2.093	0.045	0.165	0.591	827
Acq. Mkt. Value × 1,000 ($ billions)	8.016	19.098	0.580	2.080	7.317	827
Majority Cash	0.846	0.361	1.000	1.000	1.000	827
Tender Offer	0.545	0.498	0.000	1.000	1.000	827
Friendly Offer	0.903	0.296	1.000	1.000	1.000	827
Same Industry	0.510	0.500	0.000	1.000	1.000	827
Acquirer Termination Fee	0.054	0.227	0.000	0.000	0.000	827
Target Termination Fee	0.278	0.448	0.000	0.000	1.000	827
Target Defense	0.033	0.178	0.000	0.000	0.000	827
Acquirer Past Return	0.700	12.001	−0.112	0.158	0.404	827
Acquirer Past Volatility	0.033	0.204	0.016	0.021	0.030	827
Target Past Return	0.216	0.728	−0.167	0.116	0.472	827
Target Past Volatility	0.036	0.064	0.021	0.030	0.042	827
ln(Acquirer Country GDP)	20.920	1.281	19.914	20.988	21.498	827
ln(Target Country GDP)	21.264	1.496	20.079	21.224	22.886	827
ln(Acquirer Country Openness)	0.056	0.049	0.025	0.050	0.065	827
ln(Target Country Openness)	0.062	0.040	0.042	0.054	0.074	827
ln(Acquirer Country GDP/Capita)	0.027	0.008	0.022	0.026	0.031	827
ln(Target Country GDP/Capita)	0.028	0.009	0.022	0.028	0.033	827
ln(| Δ Corporate Tax Rate|)	0.072	0.050	0.025	0.068	0.095	827
Same Religion	0.417	0.493	0.000	0.000	1.000	827
Same Language	0.277	0.448	0.000	0.000	1.000	827
ln(Geographic Distance)	8.000	1.233	6.780	8.683	8.812	827
Share Border	0.222	0.416	0.000	0.000	0.000	827
Exchange Rate Volatility	0.024	0.014	0.018	0.025	0.031	827
Exchange Rate Growth	0.008	0.100	−0.057	0.000	0.070	827
Double-Tax Treaty	0.953	0.212	1.000	1.000	1.000	827
Bilateral Investment Treaty	0.096	0.294	0.000	0.000	0.000	827
Same Legal System	0.924	0.265	1.000	1.000	1.000	827

TABLE 3
Cultural Distance and Cross-Border Merger Activity
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). 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. Standard errors are double-clustered by acquirer and target nation. Significance at 10%, 5%, and 1%, indicated by *, **, and *** with $p-$values in parentheses.

	ln(Dollar Volume of Cross-Border Mergers)					
	Tobit (1)	Tobit (2)	Tobit (3)	Tobit (4)	OLS (5)	OLS (6)
ln(| Δ Trust|)	−3.685***			−3.507***	−1.244***	−1.426***
	(0.003)			(0.005)	(0.004)	(0.002)
ln(| Δ Hierarchy|)		−1.792		−1.410	−1.786***	−1.939***
		(0.261)		(0.384)	(0.000)	(0.000)
ln(| Δ Individualism|)			−4.306***	−4.057***	−1.112***	−1.291***
			(0.001)	(0.002)	(0.001)	(0.000)
ln(Acquirer Nation GDP)	4.203***	4.246***	4.067***	4.184***	0.772**	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.024)	
ln(Target Nation GDP)	4.807***	4.891***	4.722***	4.774***	0.478	
	(0.001)	(0.000)	(0.001)	(0.000)	(0.129)	
ln(Acquirer Openness)	−3.106	−3.808	−2.555	−2.183	−0.937	
	(0.735)	(0.683)	(0.780)	(0.809)	(0.585)	
ln(Target Openness)	4.922	3.775	4.802	5.689	−0.491	
	(0.677)	(0.741)	(0.682)	(0.632)	(0.772)	
ln(Acquirer GDP/capita)	26.302	21.393	21.244	26.711	8.835	
	(0.396)	(0.501)	(0.493)	(0.386)	(0.305)	
ln(Target GDP/capita)	−66.272	−67.909	−69.152	−66.994	6.379	
	(0.157)	(0.147)	(0.136)	(0.144)	(0.495)	
ln(| Δ Corporate Tax Rate|)	−7.332**	−7.471***	−7.208**	−6.770**	−1.742*	−1.647
	(0.010)	(0.009)	(0.015)	(0.015)	(0.087)	(0.115)
Same Religion	1.129***	1.123***	1.099***	1.039***	0.389***	0.374***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Same Language	1.907***	2.010***	1.948***	1.742***	1.402***	1.379***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
ln(Geographic Distance)	−2.459***	−2.478***	−2.460***	−2.404***	−0.662***	−0.658***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)

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Table 3 - *Continued*

	Tobit (1)	Tobit (2)	Tobit (3)	Tobit (4)	OLS (5)	OLS (6)
Share Border	−0.048	−0.048	0.002	0.048	0.128	0.138
	(0.863)	(0.863)	(0.994)	(0.861)	(0.436)	(0.395)
Exchange Rate Volatility	0.160***	0.151***	0.160***	0.167***	0.039***	−0.010
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.549)
Exchange Rate Growth	0.008	0.008	0.009	0.008	0.001	0.000
	(0.587)	(0.562)	(0.637)	(0.649)	(0.154)	(0.915)
Double-Tax Treaty	0.380*	0.370*	0.410*	0.439**	−0.382***	−0.384***
	(0.077)	(0.098)	(0.066)	(0.047)	(0.000)	(0.000)
Bilateral Investment Treaty	−0.526*	−0.630**	−0.585*	−0.500*	−0.554***	−0.569***
	(0.077)	(0.042)	(0.059)	(0.085)	(0.000)	(0.000)
Same Legal System	1.128***	1.671***	1.681***	1.207***	0.583***	0.594***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
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	-19811	-19835	-19821	-19794		
Constant only log likelihood	-27629	-27629	-27629	-27629		
Adjusted R^2					0.521	0.529
Observations	27,753	27,753	27,753	27,753	27,753	27,753

TABLE 4

GMM Instrumental Variables Regression of Culture on Merger Activity

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. Generalized methods of moments (GMM) regression coefficients are reported where the excluded instrument in Panel A is $\ln(F_{st})$, a measure of genetic difference for the majority population in a country (Cavalli-Sforza, Menozzi, and Piazza, 1994), and in Panel B is ln(Somatic distance), a measure of somatic distance based on height, hair color (pigmentation), and cephalic index (Biasutti, 1954). 'Controls' indicate that all the control variables used in Table 3 are included. $\mid \Delta \mid$ indicates the absolute difference between the acquirer and target nation variables. All variables are defined in the appendix. Std errors are clustered by the acquirer-target pair. Tests of under-identification and weak instruments based on Kleibergen and Paap (2006). Significance at 10%, 5%, and 1%, indicated by *, **, and *** with $p-$values in parentheses.

	ln(Dollar Volume of Cross-Border Mergers)		
	(1)	(2)	(3)
Panel A: Cultural Distance Proxied by Genetic Distance			
ln(| Δ Trust|)	−23.973***		
	(0.004)		
ln(| Δ Hierarchy|)		−43.687**	
		(0.012)	
ln(| Δ Individualism|)			−120.577
			(0.285)
Controls	Yes	Yes	Yes
Acquirer Country Fixed Effects	Yes	Yes	Yes
Target Country Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Test of under-identification	10.396	7.214	1.161
	(0.001)	(0.007)	(0.281)
Test of weak instruments	10.455	7.218	1.146
Observations	27,086	27,086	27,086
Panel B: Cultural Distance Proxied by Somatic Distance			
ln(| Δ Trust|)	−3.687**		
	(0.019)		
ln(| Δ Hierarchy|)		1426.427	
		(0.972)	
ln(| Δ Individualism|)			−30.421
			(0.118)
Controls	Yes	Yes	Yes
Acquirer Country Fixed Effects	Yes	Yes	Yes
Target Country Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Test of under-identification	20.161	0.002	3.184
	(0.000)	(0.963)	(0.074)
Test of weak instruments	47.043	0.002	3.379
Observations	2,844	2,844	2,844

TABLE 5
Cultural Distance and Combined Abnormal Returns in Cross-Border Mergers
The dependent variable is the combined abnormal return of the target and acquirer over the period $(-1,+1)$ around the announcement, where returns are weighted by market values. Cross-sectional ordinary least squares regression coefficients of a gravity model and robust $p-$values, double-clustered at the acquirer and target country levels are reported. 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. $\mid \Delta \mid$ indicates the absolute difference between the acquirer and target nation variables. 'Heckman's Lambda' is a self-selection variable from a first-stage probit model. All other variables are defined in the appendix. A constant is included in each specification but not reported in the table. Inclusion of fixed effects are indicated at the end. Significance at 10%, 5%, and 1%, indicated by *, **, and ***.

	Combined $CAR_{(-1,+1)}$			
	(1)	(2)	(3)	(4)
ln(| Δ Trust|)	-0.060^{***}			-0.049^{*}
	(0.002)			(0.057)
ln(| Δ Hierarchy|)		-0.004		0.006
		(0.961)		(0.934)
ln(| Δ Individualism|)			-0.090^{**}	-0.074^{*}
			(0.042)	(0.096)
Transaction Value	0.085	0.077	0.068	0.074
	(0.787)	(0.831)	(0.828)	(0.825)
Relative Size	0.011^{***}	0.011^{***}	0.011^{***}	0.011^{***}
	(0.000)	(0.000)	(0.000)	(0.000)
Acquirer Market Value	-0.596^{*}	-0.590^{*}	-0.590^{*}	-0.595^{*}
	(0.098)	(0.100)	(0.099)	(0.099)
Majority Cash	0.015^{*}	0.015^{**}	0.016^{**}	0.015^{*}
	(0.058)	(0.044)	(0.044)	(0.059)
Tender Offer	0.009^{**}	0.009^{**}	0.009^{**}	0.009^{**}
	(0.021)	(0.015)	(0.015)	(0.018)
Friendly Offer	0.002	0.002	0.002	0.002
	(0.826)	(0.844)	(0.856)	(0.839)
Same Industry	-0.006	-0.005	-0.005	-0.005
	(0.337)	(0.385)	(0.364)	(0.336)
Acquirer Termination Fee	-0.006	-0.006	-0.007	-0.007
	(0.366)	(0.372)	(0.367)	(0.355)
Target Termination Fee	-0.003	-0.002	-0.002	-0.002
	(0.724)	(0.793)	(0.836)	(0.776)
Target Defense	0.003	0.002	0.003	0.003
	(0.688)	(0.754)	(0.709)	(0.675)
Acquirer Past Return	0.000	0.000	0.000	0.000
	(0.898)	(0.883)	(0.902)	(0.916)
Acquirer Past Volatility	-0.009^{***}	-0.009^{**}	-0.009^{**}	-0.009^{**}
	(0.008)	(0.012)	(0.011)	(0.020)
Target Past Return	-0.009^{**}	-0.009^{**}	-0.009^{**}	-0.009^{**}
	(0.020)	(0.021)	(0.018)	(0.019)
Target Past Volatility	0.033^{*}	0.033^{*}	0.034^{*}	0.034^{*}
	(0.068)	(0.067)	(0.058)	(0.064)

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Table 5 - *Continued*

	Combined $CAR_{(-1,+1)}$			
	(1)	(2)	(3)	(4)
ln(Acquirer Country GDP)	0.238***	0.241***	0.235***	0.234***
	(0.001)	(0.001)	(0.001)	(0.001)
ln(Target Country GDP)	−0.003	−0.007	−0.016	−0.011
	(0.952)	(0.894)	(0.779)	(0.836)
ln(Acquirer Openness)	0.794	0.749	0.731	0.777
	(0.324)	(0.338)	(0.337)	(0.310)
ln(Target Openness)	0.074	−0.077	0.024	0.135
	(0.922)	(0.924)	(0.974)	(0.862)
ln(Acquirer Country GDP/Capita)	−7.144**	−6.974*	−6.909*	−7.064*
	(0.050)	(0.054)	(0.052)	(0.052)
ln(Target Country GDP/Capita)	2.921***	2.501**	2.447**	2.801***
	(0.006)	(0.039)	(0.014)	(0.001)
ln(| Δ Corporate Tax Rate |)	−0.075	−0.064	−0.063	−0.072
	(0.474)	(0.537)	(0.529)	(0.475)
Same Religion	0.000	−0.001	0.000	0.001
	(0.980)	(0.911)	(0.976)	(0.894)
Same Language	−0.005	−0.005	−0.007	−0.007
	(0.718)	(0.757)	(0.592)	(0.608)
ln(Geographic Distance)	−0.005	−0.006	−0.006	−0.006
	(0.335)	(0.429)	(0.275)	(0.380)
Share Border	0.013**	0.012*	0.011*	0.012*
	(0.034)	(0.061)	(0.060)	(0.084)
Exchange Rate Volatility	0.202	0.205	0.157	0.161
	(0.479)	(0.465)	(0.601)	(0.586)
Exchange Rate Growth	0.039*	0.040*	0.041*	0.040*
	(0.081)	(0.078)	(0.083)	(0.074)
Double-Tax Treaty	−0.001	−0.001	0.001	0.001
	(0.963)	(0.973)	(0.940)	(0.963)
Bilateral Investment Treaty	0.018	0.019	0.018	0.018
	(0.394)	(0.354)	(0.378)	(0.369)
Same Legal System	−0.013	−0.004	−0.001	−0.009
	(0.159)	(0.674)	(0.904)	(0.442)
Heckman's Lambda	0.001	−0.003	−0.001	0.001
	(0.982)	(0.898)	(0.946)	(0.963)
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	0.152	0.150	0.152	0.151
Observations	827	827	827	827

TABLE 6

Deal Characteristics by Cultural Values

This table presents univariate tests of differences in deal characteristics between cultural values. Entries in the 'All' column are the average of the deal characteristic for all 827 deals. Entries in the 'High' ('Low') column are the average when the cultural value is above (below) the median. Statistical significance is indicated by the $p-$value of a $t-$test assuming unequal variances. Trust is measured as whether people believe most other people can be trusted or not. Hierarchy is measured as 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 measured as whether people believe income differences are an incentive for effort vs. whether incomes should be made more equal. 'Acquirer Gain w.r.t. Total' is the $ value of acquirer abnormal returns in $(-1,+1)$ minus the $ value of target abnormal returns in $(-1,+1)$ normalized by the sum of the market values of the acquirer and target 10 days before the announcement. Δ indicates the acquirer nation value minus the target nation value. All variables are defined in the appendix. Significance at 10%, 5%, and 1%, indicated by *, **, and ***.

	All	Δ Trust			Δ Hierarchy			Δ Individualism		
		High	Low	$p-$value	High	Low	$p-$value	High	Low	$p-$value
Acquirer $CAR_{(-1,+1)}$	0.002	0.000	0.005	(0.175)	0.004	0.001	(0.549)	0.001	0.004	(0.454)
Target $CAR_{(-1,+1)}$	0.169	0.179	0.159	(0.107)	0.203	0.135	(0.000)***	0.168	0.170	(0.922)
Acquirer Gain w.r.t. Total	−0.032	−0.038	−0.026	(0.015)**	−0.042	−0.022	(0.000)***	−0.037	−0.026	(0.037)**
Premium	0.218	0.212	0.224	(0.561)	0.308	0.129	(0.000)***	0.218	0.218	(0.989)
Transaction Value	1.880	2.242	1.534	(0.235)	2.027	1.735	(0.620)	1.854	1.907	(0.928)
Relative Size	0.850	0.863	0.837	(0.860)	1.059	0.642	(0.004)***	0.936	0.765	(0.241)
All Cash	0.850	0.851	0.848	(0.923)	0.885	0.814	(0.004)***	0.846	0.853	(0.800)
Tender Offer	0.545	0.570	0.521	(0.157)	0.488	0.602	(0.001)***	0.545	0.546	(0.985)
Friendly	0.903	0.889	0.917	(0.172)	0.932	0.875	(0.005)***	0.908	0.899	(0.679)
Same Industry	0.510	0.514	0.507	(0.853)	0.464	0.557	(0.007)***	0.550	0.471	(0.024)**
Days to Completion	120.773	130.079	111.841	(0.024)**	120.922	120.624	(0.971)	121.484	120.070	(0.861)
Financial Acquirer	0.019	0.017	0.021	(0.673)	0.019	0.019	(0.988)	0.022	0.017	(0.597)
Merger of Equals	0.006	0.010	0.002	(0.170)	0.005	0.007	(0.660)	0.010	0.002	(0.176)
Acquirer Termination Fee	0.054	0.054	0.055	(0.991)	0.090	0.019	(0.000)***	0.071	0.038	(0.042)**
Target Termination Fee	0.278	0.272	0.284	(0.683)	0.490	0.067	(0.000)***	0.343	0.214	(0.000)***
Target Defense	0.033	0.037	0.028	(0.488)	0.053	0.012	(0.001)***	0.036	0.029	(0.537)

TABLE 7
Culture and the Division of Merger Gains

The dependent variable is the $ value of acquirer abnormal returns in $(-1,+1)$ minus the $ value of target abnormal returns in $(-1,+1)$ normalized by the sum of the market values of the acquirer and target 10 days before the announcement. Cross-sectional ordinary least squares regression coefficients and robust $p-$values, double-clustered at the acquirer and target country levels are reported. Trust is measured as whether people believe most other people can be trusted or not. Hierarchy is measured as 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 measured as whether people believe income differences are an incentive for effort vs. whether incomes should be made more equal. Δ indicates the acquirer nation value minus the target nation value. 'Heckman's Lambda' is a self-selection variable from a first-stage probit model. All other variables are defined in the appendix. A constant is included in each specification but not reported in the table. Inclusion of fixed effects are indicated at the end. Significance at 10%, 5%, and 1%, indicated by *, **, and ***.

	Acquirer's Gain Relative to Target's Gain				
	(1)	(2)	(3)	(4)	(5)
ln(Δ Trust)	0.097***			0.088***	0.047*
	(0.001)			(0.001)	(0.092)
ln(Δ Hierarchy)		0.090***		0.063***	0.127**
		(0.000)		(0.000)	(0.020)
ln(Δ Individualism)			0.028	−0.014	−0.022
			(0.577)	(0.740)	(0.635)
Transaction Value	−0.167	−0.215	−0.164	−0.202	−0.407*
	(0.392)	(0.265)	(0.380)	(0.313)	(0.097)
Relative Size	−0.011***	−0.011***	−0.011***	−0.011***	−0.011***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Acquirer Market Value	0.108	0.119	0.110	0.114	0.188
	(0.290)	(0.271)	(0.282)	(0.284)	(0.162)
Majority Cash	0.013	0.014	0.014	0.014	0.017
	(0.214)	(0.189)	(0.208)	(0.205)	(0.158)
Tender Offer	−0.008***	−0.009***	−0.009***	−0.008***	−0.010**
	(0.001)	(0.005)	(0.006)	(0.001)	(0.010)
Friendly Offer	0.001	0.002	0.002	0.001	0.003
	(0.927)	(0.769)	(0.760)	(0.918)	(0.625)
Same Industry	0.006*	0.005	0.005	0.006*	0.005
	(0.082)	(0.216)	(0.178)	(0.098)	(0.213)
Acquirer Termination Fee	0.008	0.007	0.008	0.007	0.009
	(0.249)	(0.405)	(0.352)	(0.326)	(0.453)
Target Termination Fee	0.002	0.003	0.001	0.003	0.011
	(0.765)	(0.661)	(0.907)	(0.601)	(0.275)
Target Defense	0.008	0.008	0.007	0.009	−0.001
	(0.185)	(0.225)	(0.290)	(0.145)	(0.906)
Acquirer Past Return	0.000	0.000	0.000	0.000	0.005
	(0.114)	(0.493)	(0.545)	(0.110)	(0.248)
Acquirer Past Volatility	0.002	0.004	0.004	0.003	−0.052
	(0.648)	(0.414)	(0.450)	(0.610)	(0.299)
Target Past Return	0.009*	0.008	0.008	0.009*	0.009
	(0.097)	(0.103)	(0.116)	(0.096)	(0.233)
Target Past Volatility	−0.005	−0.001	0.000	−0.005	0.004
	(0.735)	(0.966)	(0.982)	(0.752)	(0.919)

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Table 7 - *Continued*

	Acquirer's Gain Relative to Target's Gain				
	(1)	(2)	(3)	(4)	(5)
ln(Acquirer Country GDP)	0.078	0.063	0.075	0.069	
	(0.304)	(0.390)	(0.305)	(0.356)	
ln(Target Country GDP)	−0.008*	0.001	−0.001	−0.006	
	(0.073)	(0.855)	(0.740)	(0.125)	
ln(Acquirer Openness)	−2.001***	−1.834***	−1.715**	−2.064***	
	(0.003)	(0.007)	(0.016)	(0.001)	
ln(Target Openness)	−0.035	−0.011	0.045	−0.067	
	(0.635)	(0.897)	(0.608)	(0.390)	
ln(Acquirer Country GDP/Capita)	−5.406*	−5.515	−5.714*	−5.298	
	(0.094)	(0.100)	(0.082)	(0.106)	
ln(Target Country GDP/Capita)	−0.301	0.017	−0.528	0.068	
	(0.605)	(0.980)	(0.465)	(0.902)	
ln(| Δ Corporate Tax Rate |)	0.018	0.005	−0.020	0.031	−0.006
	(0.781)	(0.939)	(0.779)	(0.614)	(0.960)
Same Religion	−0.001	−0.001	0.000	−0.002	0.001
	(0.854)	(0.678)	(0.914)	(0.608)	(0.862)
Same Language	−0.011*	−0.008	−0.011	−0.009	−0.007
	(0.070)	(0.213)	(0.120)	(0.123)	(0.323)
ln(Geographic Distance)	0.002	0.001	0.000	0.003	−0.001
	(0.695)	(0.752)	(0.988)	(0.554)	(0.880)
Share Border	−0.007	−0.005	−0.003	−0.008	−0.017
	(0.404)	(0.679)	(0.802)	(0.328)	(0.184)
Exchange Rate Volatility	−16.988	−6.781	−8.672	−14.953	−23.994
	(0.461)	(0.756)	(0.739)	(0.459)	(0.469)
Exchange Rate Growth	−2.536	−1.552	−1.711	−2.357	−6.128
	(0.317)	(0.565)	(0.527)	(0.362)	(0.279)
Double-Tax Treaty	−0.011	−0.008	−0.005	−0.012	−0.018
	(0.515)	(0.631)	(0.762)	(0.456)	(0.484)
Bilateral Investment Treaty	−0.018*	−0.008	−0.013	−0.014	−0.002
	(0.089)	(0.314)	(0.212)	(0.163)	(0.925)
Same Legal System	−0.008	0.000	0.003	−0.009	−0.004
	(0.471)	(0.998)	(0.827)	(0.394)	(0.655)
Heckman's Lambda	−0.006	0.005	0.006	−0.006	−0.008
	(0.722)	(0.778)	(0.707)	(0.713)	(0.624)
Acquirer Country Fixed Effects	Yes	Yes	Yes	Yes	No
Year Fixed Effects	Yes	Yes	Yes	Yes	No
Acquirer Country-Year FE	No	No	No	No	Yes
Adjusted R^2	0.192	0.184	0.178	0.194	0.200
Observations	827	827	827	827	827

TABLE 8
National Culture and Deal Structure

The dependent variable in column 1 is a dummy variable equal to 1 if the merger payment is all cash and 0 otherwise, in column 2 a dummy variable for the presence of a target termination fee, and in column 3 a dummy variable for tender offers. Cross-sectional fixed-effects logit regression coefficients and robust $p-$values, clustered at the acquirer country level are presented. 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. Δ indicates the acquirer nation value minus the target nation value. $|\Delta|$ is the absolute difference between acquirer and target nation. 'Heckman's Lambda' is a self-selection variable from a first-stage probit model. All other variables are defined in the appendix. A constant is included in each specification but not reported in the table. Inclusion of fixed effects are indicated at the end. Significance at 10%, 5%, and 1%, indicated by *, **, and ***.

	All Cash (1)	Target Termination Fee (2)	Tender Offer (3)
ΔTrust	1.579^{**}	-0.881	-1.669
	(0.014)	(0.735)	(0.164)
ΔHierarchy	-4.490^{**}	-14.901^{***}	2.907^{**}
	(0.023)	(0.000)	(0.019)
ΔIndividualism	4.138	-6.154	0.651
	(0.263)	(0.160)	(0.616)
All Cash		-0.152	0.709^{***}
		(0.829)	(0.004)
Transaction Value	-272.878^{***}	16.530	16.141^{**}
	(0.000)	(0.377)	(0.038)
Relative Size	-0.060	0.044	-0.062
	(0.518)	(0.623)	(0.109)
Acquirer Market Value	2.894	10.796	-2.624
	(0.144)	(0.216)	(0.199)
Tender Offer	0.868^{***}	0.534^{*}	
	(0.000)	(0.065)	
Friendly Offer	-0.901	1.345^{*}	0.408
	(0.142)	(0.092)	(0.225)
Same Industry	-0.674^{*}	-0.150	-0.140
	(0.064)	(0.553)	(0.340)
Acquirer Termination Fee	-1.143^{***}	19.511^{***}	-1.229^{***}
	(0.000)	(0.000)	(0.009)
Target Termination Fee	-0.128		0.237
	(0.848)		(0.280)
Target Defense	-0.310	0.640	0.152
	(0.562)	(0.464)	(0.722)
Acquirer Past Return	-0.860^{***}	-0.610^{***}	-0.041
	(0.000)	(0.000)	(0.790)
Acquirer Past Volatility	-39.500^{***}	9.347^{*}	-1.231
	(0.000)	(0.085)	(0.752)
Target Past Return	0.147	0.399^{**}	-0.014
	(0.733)	(0.013)	(0.913)
Target Past Volatility	-14.645	-0.772	-2.490
	(0.116)	(0.605)	(0.543)

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Table 8 - *Continued*

	All Cash (1)	Target Termination Fee (2)	Tender Offer (3)
ln(| Δ Corporate Tax Rate |)	2.028	10.521*	−5.121**
	(0.521)	(0.052)	(0.040)
Same Religion	−0.682*	−0.037	−0.035
	(0.077)	(0.939)	(0.792)
Same Language	−0.112	2.382**	0.247
	(0.818)	(0.023)	(0.577)
ln(Geographic Distance)	−0.023	0.446	−0.076
	(0.948)	(0.233)	(0.419)
Share Border	−1.742**	−0.254	−0.663*
	(0.049)	(0.723)	(0.090)
Exchange Rate Volatility	−1843.452	8729.088**	−1697.653
	(0.220)	(0.024)	(0.197)
Exchange Rate Growth	155.489	475.399	404.223***
	(0.463)	(0.364)	(0.000)
Double-Tax Treaty	0.206	15.630***	−0.769
	(0.767)	(0.000)	(0.206)
Bilateral Investment Treaty	2.690***	−1.224	−0.327
	(0.003)	(0.378)	(0.507)
Same Legal System	0.935	2.579*	−0.403
	(0.157)	(0.069)	(0.501)
Heckman's Lambda	0.145	−0.274	0.075
	(0.759)	(0.746)	(0.722)
Acquirer Nation-Year Fixed Effects	Yes	Yes	Yes
Pseudo R^2	0.399	0.649	0.110
Observations	542	617	722