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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 and synergy gains. The volume of cross-border mergers is lower when countries are more culturally distant. In addition, greater cultural distance in trust and individualism leads to lower combined announcement returns. These findings are robust to year and country-level fixed effects, time-varying country-pair and deal-level variables, as well as instrumental variables for cultural differences based on genetic and somatic differences. The results are the first large-scale evidence that cultural differences have substantial impacts on multiple aspects of cross-border mergers.

1. Introduction

Recent research documents that cultural values impact an impressive array of financial outcomes in markets worldwide. For instance, cultural differences between countries affect foreign direct investment (Guiso, Sapienza, and Zingales, 2009), equity investment (Hwang, 2011), and venture-capital flows (Bottazzi, Da Rin, and Hellmann, 2010). Interest rates are lower when borrowers and lenders share common cultural values (Giannetti and Yafeh, 2012). In addition, stock market participation and stock price momentum are both affected by national cultural values (Guiso, Sapienza, and Zingales, 2008; Chui, Titman, and Wei, 2010).

Cultural differences are likely to be especially important in cross-border mergers, where people with possibly conflicting values have to coordinate with each other. Though anecdotal evidence of culture clash in cross-border mergers is widespread (e.g., Daimler-Chrysler) and it is well known that culture affects fundamental economic decision-making (Guiso, Sapienza, and Zingales, 2006), there is little research on the role of cultural differences in cross-border mergers. At the same time, understanding cross-border mergers has

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become especially important—during the last decade, the number of cross-border mergers nearly doubled, from 23% of total mergers in 1998 to 45% in 2007 (Erel, Liao, and Weisbach, 2012). In this paper, we provide some of the first large-scale evidence to show that national cultural differences have substantial impacts on multiple aspects of mergers, including where mergers occur and the gains they create.

First, like geographic distance, we suggest that greater cultural distance between merging firms could reduce 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 could 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 could make post-merger coordination more difficult and hence, the realization of synergies less likely.

In contrast, greater cultural distance could increase the likelihood of a successful merger if cultural diversity facilitates innovation and promotes new approaches to problem solving (Page, 2007). For instance, employees with different cultural values could introduce alternatives to the status quo which lead to greater efficiency. A third alternative is that cultural differences could have no impact if market forces, contracts, and incentive devices overcome potential cultural barriers.

To test our hypotheses, 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, not just 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, while controlling for a host of other possible determinants. These results are consistent with the hypothesis that cultural differences impede cross-border mergers. 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 acquirers and targets. In multivariate regressions accounting for a host of potentially correlated effects, we find that a change from the 25th to the 75th percentile in the distance between trustfulness or individualism leads to a reduction in gains of about 28% of the median combined announcement return. For average-sized firms, the expected loss is about $50 million. Thus, cultural differences impose substantial costs in cross-border mergers, all else equal. Yet, cross-border mergers occur because they create value. In univariate tests, we find that the combined returns in cross-border mergers are higher than in domestic mergers (3.64% compared to 2.52%), though the acquirer's gains are not statistically different. These findings imply that in our sample of completed cross-border deals, the potential synergies are large enough to overcome cultural barriers and exceed the value of potential competing bids by domestic acquirers, even though the marginal effect of cultural distance is negative.

We also find, consistent with prior studies, that 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, domestic benchmarks, 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 interrelated 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 an 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 that our results are unchanged.

In an additional robustness test we look at interregional mergers within the United States. In this setting, national institutional details are the same across all regions, but cultural values vary. We again find that cultural differences along all three dimensions reduce the likelihood of interregional mergers. Though there is some evidence that changes to political institutions cause cultural values to change (Alesina and Fuchs-Schündeln, 2007), our findings are consistent with the majority of research that shows that culture is a stronger determinant of institutions than vice versa (Licht, Goldschmidt, and Schwartz, 2007; Tabellini, 2008; Gorodnichenko and Roland, 2010; Guiso, Sapienza, and Zingales, 2010).

We provide a number of other robustness checks on our main results. In particular, in our main specifications, we use cultural value measures from the World Values