How culture influences foreign trade: evidence from the U.S. and China

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Abstract

Using a gravity model of trade and the U.S. and Chinese panel data, I present evidence that supports the views that linguistic links have become more important in foreign trade than geographical proximity and that linguistic influence on trade is more significant in China than in the U.S. The estimated result based on a broad panel of economies shows little overall relation between religious similarity and foreign trade in both the U.S. and China. But there is an indication that the religious dissimilarity tends to retard foreign trade with poor countries and regions and to encourage foreign trade with richer places. I also found that, although religious retardation on foreign trade is more significant in China than in the U.S., religious dissimilarity tends to retard the US export more than that of China; by contrast, it tends to retard the Chinese import more than that of the U.S. At last, the socio-economic implications of the estimated results are discussed.
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1. Introduction

Since the 1980s, especially since the early 1990s when the Cold War came to an end, economic activities in the homogeneously cultural environment have become more and more important than in the heterogeneously cultural environments. For example, trade among the ASEAN, Taiwan, Hong Kong, South Korea, and the mainland China, most of which either

fall within or are closely related to the Chinese cultural circle, increased from less than 10% to over 30% of their total trade from the 1950s to the 1990s. Similar shifts towards the intraregional trade also occurred in intra-Latin American trade in the early 1990s, with trade between Brazil and Argentina tripling and Colombia-Venezuela trade quadrupling between 1990 and 1993. In 1994, Brazil replaced the United States as Argentina's principal trading partner.[1]

No body has now doubted about the role of cultural factor in international trade. Quantitative studies, however, have not been conducted until the 1990s. Havrylyshyn and Pritchett (1991), for example, find that the three languages, Portuguese, Spanish, and English, are significant in decreasing order of magnitude. In the study of poor countries, Foroutan and Pritchett (1993) find that French, Spanish and English are statistically significant. After trying to supplement the general language term and allowing each of the major languages to have an independent extra coefficient, Frankel and Wei (1995) (Table 5) found that two languages, English and Chinese, appear to qualify as especially important.[2] More recently, Frankel et al. (1997) and Rauch (1999) use nine languages (English, Spanish, Chinese, Arabic, French, German, Japanese, Dutch, and Portuguese)[3] and treat international linguistic links as a dummy variable for whether countries of a pair speak a common language or had colonial links earlier in the twentieth century. Frankel et al.'s results show a highly significant effect when all the languages are constrained to have the same coefficient. The estimate fluctuates over time between 0.33 and 0.77. Pooled time-series estimates of the coefficient (in natural log) cluster around 0.44, which implies that two countries sharing linguistic/colonial links tend to trade roughly 55% (that is, $\exp(0.44) \approx 1.55$) more than they would otherwise (1997, pp. 74–75).

There is a consistent interpretation that the above estimated coefficients on linguistic links exhibit a trend whereby trade in the post-war period took place among countries being linguistically similar to each other, or in other words, they interpret this as possible evidence of increased cultural barriers to trade. However, it should be noted that cultural variables have been highly simplified in the existing studies, probably due to the fact that the cultural factors were only treated as a complement variable in the determinants of trade. For example, the linguistic links between countries were only treated in the above studies as a dummy variable. As most countries are linguistically diversified, the international (or interregional) linguistic links should not be simply expressed by the numbers '1' (for countries to share a common language) and '0' (for otherwise countries).[4] In addition, the above literature omits another cultural variable, religion, that could play, at least in some cases, a more important role in the determinants of economic development than the linguistic variable (Guo, 2001, Chapter 5; and Guo and Hwang, 2002).

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[1] Calculated by the author based on IMF (various issues).

[2] When manufactured goods are considered alone, and the individual major languages are estimated independently, Frankel et al. (1994) find that the language coefficients lose all statistical significance.

[3] We argue that if Bengali, Hindi, and Russian, the three other major languages, were considered, the effect of the influence of these languages on the internatinoal trade of South Asia and Eastern Europe would have been included.

[4] There is an exception in which Boisso and Ferrantino (1997) construct a measure of linguistic distance that is a continuous scalar.