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Language and foreign trade

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Abstract

While language plays an important role in gravity models, there has been little attention to the channels through which a common language promotes bilateral trade. This work proposes separate series for a common language depending upon whether ease of communication facilitates trade through translation or the ability to communicate directly. The series related to direct communication is far more important in explaining bilateral trade, but the other series, based on translation, makes a distinct contribution as well. Either measure of a common language outperforms the measure in popular use, which is implicitly related to translation, and a combination of the two does far better. In addition, the paper examines the effect of two country-specific linguistic influences on trade: Literacy and linguistic diversity at home. Both of these influences promote foreign relative to domestic trade. Finally, the article studies the separate roles of English and network externalities.

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0. Introduction

Gravity models provide ample evidence that a common language has a significant impact on bilateral trade but studies of these models leave open the question of the

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channels through which the effect takes place.[1] The typical step is to use a binary measure of a common language as zero or one. But the channel of influence that this concerns is not obvious. Direct communication (DC) cannot be the entire answer since the measure often treats a common language as present when only a minority in either country in a pair could communicate directly with the people in the other. For example, India and Tanzania are supposed to be an English pair and Niger and Senegal a French one. But if we consider the probability that a random pair of people from India and Tanzania both speak English or a similar random pair from Niger and Senegal both speak French, the figure is less than 10 percent in both cases. Implicitly, a widespread ability to communicate directly is not essential and an adequate system of translation will do as well. In this paper, I propose to construct a separate series for a common language that depends on translation, and a separate series that depends on DC. This will make it possible to see whether translation acts a separate channel, as distinct from DC, through which ease of communication promotes bilateral trade. Better measures of a common language will result as well.

The usual reliance on binary variables as indicators of a common language probably reflects mostly the difficulty of quantifying the numbers of speakers of different languages in a country. Yet considerable headway is possible by relying on Grimes (2000), now in its 14th edition since it first appeared in 1951. This work is the result of a massive effort to condense the information supplied by the entire profession of ethnologists about world languages. There have indeed been at least three recent efforts to use this work to construct a general quantitative index of language in economic research: Hall and Jones (1999), Wagner (2000) and Rauch and Trindade (2002). But the aim, in these cases, has never been to provide a general index of the ability to communicate directly in foreign trade. Hall and Jones focus on language out of a concern with certain institutional/legal features. In close connection, they limit their attention to a few major languages. Though concerned with communication, Wagner deals strictly with the trade of Canadian provinces, and chooses his languages accordingly. Rauch and Trindade focus on ethnic ties. Consequently, they collect data strictly on common *native* languages, whereas, of course, bilingualism is of the essence in regard to communication. There has been one earlier effort to construct a general quantitative index of a common language in order to analyze world trade from a similar perspective as mine, by Boisso and Ferrantino (1997). But the authors proceed, in this pioneering work, like Rauch and Trindade, to attribute only a single language to each person (not necessarily the mother tongue). They also rely on a far more summary treatment than Grimes', by Katzner (1986).

Besides the issue of the channels of influence of a common language, I propose to deal with a number of other major questions about the influence of language on foreign trade. One is the question whether the world's dominant language, English, is more effective than the rest in promoting trade. Another is the impact of linguistic diversity at home and literacy on foreign trade. As I will argue below, in principle, both of these country-specific aspects of language should promote foreign trade. I will also consider the issue of the possible network externalities of a common language.

The basic results can be summarized as follows. First, a common language promotes international trade via translation as well as through DC. DC is far more important. But, very significantly, an established network facilitating access to a language plays a basic role

[1] For bibliography and examples, see Frankel (1997), Frankel and Rose (2002), and Anderson and van Wincoop (2004).