The Causal Impact of Common Native Language on International Trade: Evidence from a Spatial Regression Discontinuity Design

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Abstract

This paper studies the causal effect of sharing a common native language on international trade. Switzerland is a multilingual country that hosts four different language groups of which three are major (French, German, and Italian). These groups of native language speakers are geographically separated, with the corresponding regions bordering countries which share a majority of speakers with the same native language. All of the three languages are understood if not spoken by most Swiss citizens. This unique setting allows for an assessment of the impact of common native (rather than spoken) language on trade from within country-pairs. We do so by exploiting the discontinuity in various international bilateral trade outcomes based on Swiss transaction-level data at historical language borders within Switzerland. The effect on various margins of imports is positive and significant. The results suggest that, on average, native language similarity between regions biases the regional structure of the value of international imports towards them by 13 percentage points and that of the number of import transactions by about 17 percentage points. This effect is considerably lower than the naive estimate (using aggregate bilateral trade and no regression discontinuity design) of common native language on Swiss international imports in the same sample, and it is also lower than the effect of common (spoken or native) language on international trade found in traditional gravity regressions. Since the naive common native language coefficient is quantitatively well in line with the common (spoken or native) language coefficient in many gravity studies, we conclude that traditional language estimates likely pick up the effect of omitted confounding economic and institutional factors.