

Three Essays on Trade Gravity Model

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Abstract

In chapter 1, the gravity models are revisited, for both the “old” one with which McCallum (1995) finds the famous “border puzzle,” and the “new” one introduced by Anderson and van Wincoop (2003). We examine the role of multilateral resistance and its relationship with the actual price index. We also extend the AvW gravity model to have non-tradable goods integrated. Then we use data simulations to test the performances of the gravity models.

In chapter 2, we revisit the question of how to measure the effect of language on international trade. More specifically, we present new data and suggest a corresponding estimation technique that gauges by how much language matching facilitates trade between two countries after their distance and incomes are controlled for. We find that the average language depression ratio is 0.31, which is large and economically significant.

In chapter 3, we try to indentify the mechanisms through which ethnic networks facilitate international trade. We create an entirely new data set that extends the data from Rauch and Trindade (2002) on ethnic Chinese networks to a panel of about 40 years. We find that Chinese networks have a generally strong and robust influence on trade. We find weak evidence that language and networks are substitutes. In stark contrast to the previous literature, we find strong evidence that networks are complements to institutions, rather than substitutes in overcoming international transaction costs.