Geographical Economics Winter 2013/2014
Assignment #2: Due December 09th 2013

Hints about solutions

1 Exercise #1

Please look at the solution in the xls posted close to this file.

Overall, Baden Württemberg displays a larger market potential. This results holds in the case of regional and country market potential. These differences are driven by a different composition of GDP per capita and distance functions.

This results implies that Baden Württemberg has to be considered as a preferential location for investments or agglomerations.

2 Exercise # 2

Brief discussion of the article F. Alcalà and A. Ciccone (2004): "Trade and Productivity",*Quarterly Journal of Economics*,vol. 119(2), 613-646.

1. The main result(s)

They introduce the concept (and index) of real openness that allows to overcome the problem of variation of non-tradable prices in computing the determinants of productivity and trade (and then, bringing distortions at the moment of producing cross-country analyses). Because of this new measure, some differences in empirical estimations appear. For instance, the average level of human capital or the capital-output ratio are not significant in estimations (while trade and population size are).

2. The empirical strategy implemented.

OLS estimations are not robust because of endogeneity problems. Therefore they apply a two-stage last square (TSLS) estimations. They need to define some instruments: the instrument for trade is computed via a reduced gravity estimation, while the instruments for institutional qualities rely on historical data (and other features, including geographical variables).

3. (Possible) limitations.

The TSLS technique may require a refinements of the selected instruments.
Update the time series.
More information about the macro-environment
Replicate with new techniques (GMM, for instance)

4. Potential extension(s) of this contribution.

Look at policy issues (as suggested by the authors)
Consider the possibility to provide results by group of countries, and then check differences
Think of adapting the framework to a micro setting (at firm level).

3 Exercise #3

The results of this exercise are associated with your sample.

A few general comments: your results are generally correct if the estimated coefficients of the distance variable is negative as and statistical significant. Its "optimal" magnitude should be around one. To the same extent, the coefficients associated with the GDP variables (either for

Catalunya and importer country(ies)) must be positive and statistical significant. Adjusted R-sq of estimations should be over 0.60.

The best econometric strategy is to build a panel with at least two destinations countries, otherwise you experience collinearity problems between distance and the constant.