## Comments on José Luis Groizard, Helena Marques and María Santana "Islands in Trade: Disentangling Distance from Border Effects"

The aim of this paper is to measure the disadvantage of island regions versus mainland regions in Spanish inter-regional trade. Islands might bear two additional costs in trade vs. mainland regions. First, the goods transported to island regions have to change its mode of transport, typically from trucks to ships. This transfer of goods imposes additional fixed and variable costs. Second, island regions in Spain, and specially the Canary Islands, are much further from regions where economic activity is concentrated in Spain. The authors confirm that island regions in Spain bear additional trading costs, and these costs are related to the change in transport mode.

I have some comments on the paper:

1. The authors introduce the fixed effects in transport using a quadratic distance. In particular, they use the log of distance and the square of the log of distance. I am not sure whether the specification should use logs. Previous studies, such as Hillberry and Hummels (2008), use the distance and the square of the distance and not the log of distance and the square of the log of distance to address the non-linear relationship between trade and distance. These authors show that most shipments occur at very short distances. Llano et al. (2011), using province-level data (a more disaggregated geographical unit than the one - autonomous communities- used by Groizard et al.), show that trade among mainland regions is highly geographically concentrated in Spain. This pattern is different to that found by Groizard et al. for island regions. As shown by Hillberry and Hummels (2008) and Llano et al. (2011), the high concentration of trading also explains the high positive value of the adjacency coefficient. If trade data has a low geographical disaggregation, the adjacency variable might pick the strong non-linear relationship between trade and distance.

2. The authors use the Blinder-Oaxaca decomposition to measure how trade would change if islands did not bear the costs of changing the transport mode and were located closer to the main centers of economic activity in Spain. However, authors should bear in mind that, as pointed out by Anderson and van Wincoop (2003), in the counterfactual situation (islands become mainland regions, or distance is reduced) the multilateral resistances would change as well. These changes should be taken into account when comparing the actual and the counterfactual situation, and I am not sure whether the Blinder-Oaxaca procedure controls for this. Anderson and van Wincoop (2003) use Gauss to estimate the actual and counterfactual multilateral resistances. As the coding in Gauss is not straightforward, Baier and Bergstrand (2009) develop an alternative, and easier to implement, procedure to estimate the multilateral resistances in the counterfactual situation.

3. The authors estimate the regression with origin-region fixed-effects, destination-region fixed effects and time fixed-effects. I would like to see whether the estimations are altered if higher dimensional fixed effects are introduced. As the authors claim, the correct estimation of the regression demands origin+time and destination+time fixed effects. This would preclude the estimation of some variables, such as GDP or population; but, it would not preclude the estimation of the key variables for the analysis, such as distance and island.

4. Authors use a combination of road and sea distance to calculate distance between the mainland regions and island regions. The authors do not explain whether they choose the distance from the origin region to the region which is closest to the island region for the road interval and then add the sea distance. I wonder whether Spanish mainland regions always use the same ports to trade with the Balearic islands and the Canary Islands. For example, it might be the case that most firms in Galicia and most firms in Madrid use the port of Valencia to transport their goods to the Canary Islands. If that were the case, distances had to be adjusted.

5. Garmendia et al. (2012) show that social networks and business networks also explain why some Spanish regions trade more with other Spanish regions.

## References

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