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The significance of geographic location in island studies: a rejoinder

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ABSTRACT: The results pointed out in the note 'The significance of geographic location in island studies' by McElroy & Lucas (2014) suggest that the economic performance of small islands is inversely related to their remoteness from the rest of the world and positively related to their political affiliation to a large country. In this note, I propose some policy implications and review some theoretical explanations for this result. I also present similar results obtained with a gravity model of tourism demand for small islands.

Keywords: distance, gravity equation, growth, import costs, international trade, islands, isolation, tourism

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Introduction

Islands have small internal markets, and tend to be isolated. Because they are small, islands should benefit more from the gains of trade because trade increases their scope for scale economies: for example, French Polynesia enjoys scale economies in the production of pearls which it exports worldwide, not in the production of beer for the small local market. However, because they are remote, islands should gain less from trade because transport costs tend to eat away at those gains. Hence what I call the island paradox: islands must trade and specialize more because they are small, but they gain less from trade because they are isolated.

This paradox explains the wrong policies and strategies that island governments sometimes apply. For example in the French overseas departments and territories , industrialists demand protection from imports justified by the fact that distance and a small domestic market make local production less competitive against these imports. But protectionism (import taxes) increases the economic remoteness of the island, and the total cost of imports and local inputs, thus hurting the competitiveness of the export and tourism sectors.

In the end, growth can only come from the multiplier effect of the external resources those export sectors bring in the local economy. By protecting the import substitution industry catering to the small domestic market, the government hurts its main source of long term growth: the export industries (including tourism). Exports are the locomotive, import substitution industries and local services are the wagons of the train: their speed is determined by the locomotive. In order to help the wagons make higher gains, protectionism brings the locomotive to a halt, and therefore the wagons too.

Theoretical explanations of McElroy & Lucas' result

A theoretical explanation of the interesting empirical result regarding distance from the rest of the world found by McElroy & Lucas (2014) could go like this:

Everything else being equal (technology, experience, workers' productivity, and so on) a small isolated economy will generate less net value added per worker (value added once allowance is made for depreciation of capital goods) from the same export good or service, than a continental economy closer to the rest of the world, because inputs and capital goods are mostly imported at a high cost, and competition between its exports and local goods in the destination country makes it necessary to earn a lower FOB (freight on board) price in order for the CIF (customs, insurance, freight) price at destination to be competitive. In other words, net value added is eaten away by transport costs at both ends: FOB prices must be lower, input and capital goods prices are higher.

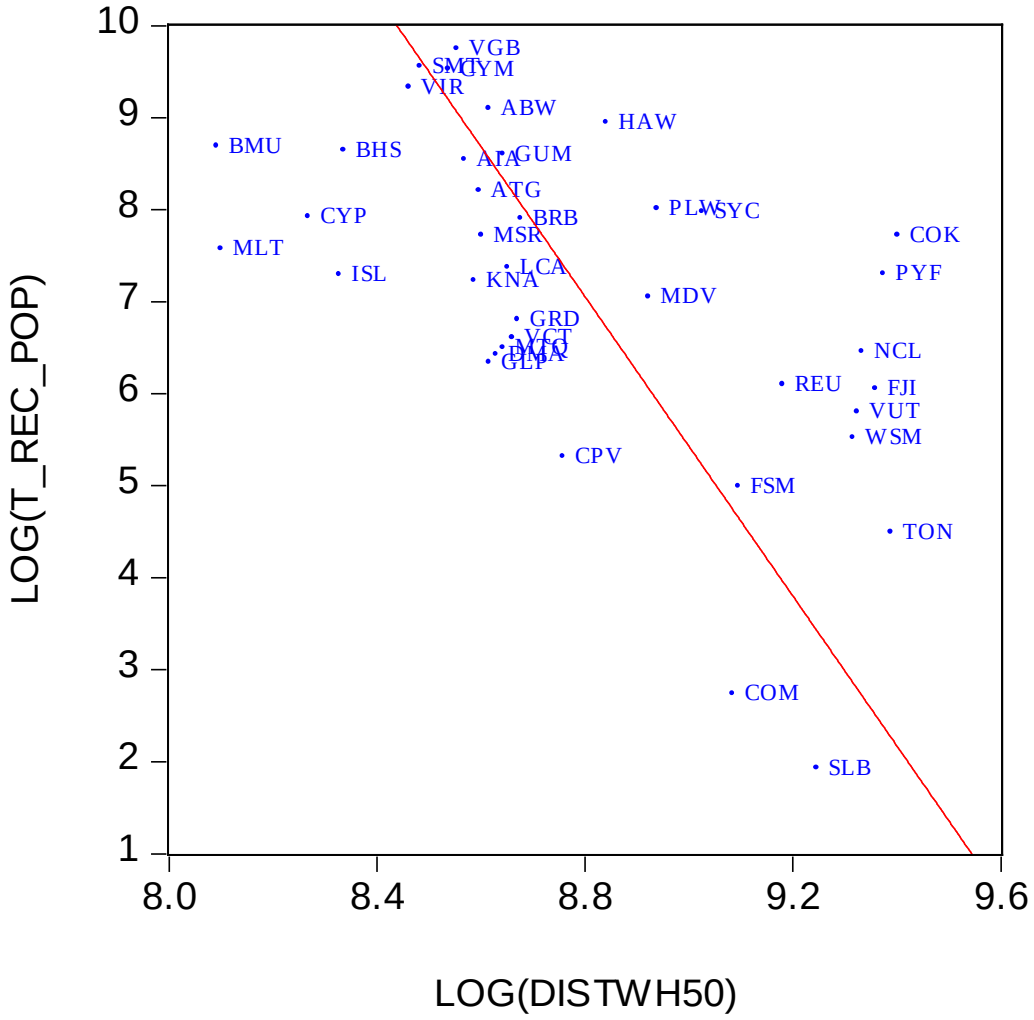
Less net value added per worker, ceteris paribus, means lower standards of living in the end, even if physical productivity (output per worker) is the same than elsewhere.

The second mechanism by which distance reduces growth and per capita GDP is through tourism, or rather the lack of it. There is a large literature on the "gravity equation" which shows that trade between two countries is inversely related to the distance separating them (see references below). The gravity model has been applied successfully to service exports (Ceglowski, 2006; Kimura & Lee, 2006). The gravity equation works just as well for service exports such as tourism (see references below): as distance between two countries increases, the number of tourists traveling from country 1 to country 2 or inversely, decreases.

Similar empirical results from a gravity equation of tourism demand

Dropsy, Montet & Poirine (2010, p. 79) have found that, as distance from the rest of the world increases, tourism receipts per capita decrease in 49 islands (Figure 1). The remotest islands are the South Pacific islands (they are on the right of the figure). Their results are drawn from a simple gravity model of tourism demand applied to 211 countries and 49 small islands. They suggest that a doubling of the distance between the sending and receiving countries reduces by approximately one third the number of tourists visiting the receiving country, whether or not this country is a small island or not (using double least square or quasi maximum likelihood methods does not change this result much).

<u>Figure 1</u>: Weighted economic distance from the rest of the world (horizontal axis in logarithm) and tourism receipts per capita (vertical axis in logarithm).



Source: Dropsy, Montet & Poirine (2010, p. 79)

Link between political affiliation and GDP per capita

Now, turning to the link between political affiliation and GDP per capita in small islands, part of the explanation lies in higher public transfers that go with it, which have the same multiplier effects on local value added as exports of goods or services (in fact it can be argued that political affiliation is a form of invisible export: bilateral aid is traded for geostrategic services and goodwill).

Another part of the explanation lies in the effect of political affiliation on tourism. When we ran a more elaborate gravity model of tourism demand, we found that when a small

island and the tourist sending country belonged to the same nation and had the same language, the number of tourists was multiplied by 3.2 (double least squares) to 4.2 (quasi maximum likelihood). When, in addition, they had the same currency and shared a colonial past, the number of tourists was multiplied by 13.3 (double least squares) to 17.6 (quasi maximum likelihood). Conversely, when the small island receiving country was independent and therefore did not belong to the same nation, the number of tourist was down 42% (double least squares) to 84% (quasi maximum likelihood) (Dropsy, et al., 2010, p. 82). This finding explains why French Polynesia, for example, receives a disproportionate number of French tourists, even though it takes 23 hours, and a lot of money, to come from France to Tahiti. When applied to non island countries, the same effects of political and cultural proximity or distance are even greater.

Cultural and political proximity have a mitigating effect on geographical remoteness, which explains why the politically affiliated islands have more tourists than they should have, according to geography. We found that this cultural and political proximity effect is smaller for small islands than it is for the non island countries. The same effects of common language, common currency, and common nationality, have been found in the gravity models of the international trade of goods.

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